#### STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

#### TECHNICAL REPORT DOCUMENTATION PAGE

TR0003 (REV 10/98)

1. REPORT NUMBER	2. GOVERNMENT ASSOCIATION NUMBER	3. RECIPIENT'S CATALOG NUMBER
CA21-5051		
4. TITLE AND SUBTITLE		5. REPORT DATE
Cross-Asset Optimization Model Development Services		July 26, 2021
		6. PERFORMING ORGANIZATION CODE
		IDS Infrastructure Data Solutions, Inc.
7. AUTHOR		8. PERFORMING ORGANIZATION REPORT NO.
Mahmoud Halfawy		
9. PERFORMING ORGANIZATION NAME AND ADDRE	SS	10. WORK UNIT NUMBER
IDS Infrastructure Data Solutions, Inc		
2 Research Drive, Suite 150E		11 CONTRACT OR GRANT NUMBER
Regina, SK S4S 7H9		
CANADA		65A0755
		13. TYPE OF REPORT AND PERIOD COVERED
		Research Executive Final Report
12. SPONSORING AGENCY AND ADDRESS		July 2019 – July 2021
California Department of Transportation		
P.O. Box 942873, MS #83		14. SPONSORING AGENCY CODE
Sacramento, CA 94273-0001		Caltrans CT 65A0755
15. SUPPLEMENTARY NOTES		

#### 16. ABSTRACT

This project investigated the application of a novel cross-asset optimization methodology to help Caltrans optimize project selections and budget allocations, maximize the value of investment, and optimally achieve performance objectives by directing investments where most needed. The methodology integrates Caltrans' prior research efforts on developing project-level MODA model into a holistic cross-asset optimization framework that supports trade-off analyses and optimal development and management of programs and budgets across the entire transportation asset portfolio. The scope of this project was limited to bridges and pavements. However, the applicability of the methodology has been evaluated in the context of supporting other asset classes. To demonstrate the reasonableness of the methodology, the data and methods were validated using a software tool, called Asset Optimizer<sup>™</sup>. Comparison of the projects recommended by the proposed methodology and Caltrans' 2020 SHOPP projects demonstrated a reasonable level of agreement of project selections. The proposed methodology can potentially support programming and budgeting decisions at Caltrans, promote consistency and transparency in project selection and evaluation, and establish a quantitative and repeatable process. Future implementation of the methodology could be piloted for a number of selected districts, and benchmarked against current processes and actual project portfolios. With additional validation and testing, an implementation of the proposed cross-asset optimization methodology could provide an improved means to support decisions on performance target setting and evaluation, cross-asset budget distribution, bundling analysis, multi-year program development, and funding allocations.

17. KEY WORDS	18. DISTRIBUTION STATEMENT	
Asset management, cross-asset optimization, asset	No restrictions. This document is available to the	
investment planning, program development, funding	public through the National Technical Information	
allocation, program management.	Service, Springfield, Virginia 22161.	
19. SECURITY CLASSIFICATION (of this report)	20. NUMBER OF PAGES	21. COST OF REPORT CHARGED
Unclassified	145	N/A

Reproduction of completed page authorized (Copyright 2021, IDS Infrastructure Data Solutions Inc.)

#### **DISCLAIMER STATEMENT**

This document is disseminated in the interest of information exchange. The contents of this report reflect the views of the authors who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This publication does not constitute a standard, specification or regulation. This report does not constitute an endorsement by the Department of any product described herein.

For individuals with sensory disabilities, this document is available in alternate formats. For information, call (916) 654-8899, TTY 711, or write to California Department of Transportation, Division of Research, Innovation and System Information, MS-83, P.O. Box 942873, Sacramento, CA 94273-0001. **Final Report** 

# Cross-Asset Optimization Model for Investment Planning of Transportation Infrastructure Assets

Prepared for:

**California Department of Transportation** 



Submitted By: IDS Infrastructure Data Solutions, Inc.



2 Research Drive, Suite 150 Regina, SK CANADA S4S 7H9 www.ids.consulting

Prepared By:

Infrastructure Data Solutions, Inc. (IDS)

Contact:

Mahmoud Halfawy, *Ph.D., P.Eng. PMP* T: 306-790-1415; 306-591-0862 E : <u>mhalfawy@ids.consulting</u>

July 26, 2021

#### Abstract

This project investigated the application of a novel cross-asset optimization methodology to help Caltrans optimize project selections and budget allocations, maximize the value of investment, and optimally achieve performance objectives by directing investments where most needed. The methodology integrates Caltrans' prior research efforts on developing project-level MODA model into a holistic cross-asset optimization framework that supports trade-off analyses and optimal development and management of programs and budgets across the entire transportation asset portfolio. The scope of this project was limited to bridges and pavements. However, the applicability of the methodology has been evaluated in the context of supporting other asset classes. To demonstrate the reasonableness of the methodology, the data and methods were validated using a software tool, called Asset Optimizer<sup>™</sup>. Comparison of the projects recommended by the proposed methodology and Caltrans' 2020 SHOPP projects demonstrated a reasonable level of agreement of project selections. The proposed methodology can potentially support programming and budgeting decisions at Caltrans, promote consistency and transparency in project selection and evaluation, and establish a quantitative and repeatable process. Future implementation of the methodology could be piloted for a number of selected districts, and benchmarked against current processes and actual project portfolios. With additional validation and testing, an implementation of the proposed cross-asset optimization methodology could provide an improved means to support decisions on performance target setting and evaluation. cross-asset budget distribution, bundling analysis, multi-year program development, and funding allocations.



## **Executive Summary**

Optimization of cross-asset programming has been a long-standing problem that posed several modeling and computational challenges. Transportation asset management (TAM) programs allocate funds among competing projects to address different types of needs across all transportation assets. Projects are selected to meet a range of performance and financial constraints, and achieve organizational objectives with respect to specific performance targets.

TAM programming is inherently an integrated cross-asset and multi-objective process that requires the assimilation of a multitude of data, models, and trade-off analyses. However, current work practices have resulted in significant process fragmentation that created inefficiencies for effective cross-asset system-level analyses, mainly due to the difficulty to integrate and streamline inter-dependent data and decision models, within and across departments or functional units managing different asset classes or sub-systems. Over the past decade, Caltrans has undertaken several initiatives to study and implement cross-asset optimization models to support programming and budgeting decisions. One of the key initiatives involved the development of a multi-objective decision analysis (MODA) model to support project prioritization and selection based on monetization of project benefits with respect to organizational performance objectives. However, as a project-level trade-off analysis model, MODA was not integrated with predictive performance models, and did not support analyzing long-term impact of project portfolios.

This project aims to develop a novel cross-asset optimization methodology to help Caltrans optimize project selections and budget allocations, maximize the value of investment, and optimally achieve performance objectives by directing investments where most needed. The methodology integrates Caltrans' existing project-level MODA model into a holistic cross-asset optimization framework that supports trade-off analyses and optimal development and management of programs and budgets across the entire transportation asset portfolio. The scope of this project was limited to bridges and pavements. However, the applicability of the methodology has been evaluated in the context of supporting other asset classes.

Effective programming and budgeting decisions require the integration of project-level analysis and system-level cross-asset analysis. Based on robust optimization procedures, the proposed methodology integrated asset-level, system-level, and program-level analyses in a single framework to support efficient workflows between inter-dependent decision processes. The methodology also provided several techniques for selecting optimal treatment types and timing, performance and risk modeling, analyzing what-if scenarios, performing capital versus maintenance investment trade-off analysis, optimizing budget distribution among different asset classes, and performing bundling analysis.

Asset lifecycle models, treatment strategies, and methods to assess and forecast asset-level performance measures are developed for each asset class before considering cross-asset analysis. To optimize treatment selections, we utilized an innovative asset-generic multi-objective optimization algorithm that considers multiple objectives: minimization of risk, maximization of performance, and minimization of costs, within defined funding and performance constraints. Unlike previously developed optimization algorithms, this algorithm is characterized by its



İİ

scalability, ease of configuration and use, and its ability to converge to a global optimal solution within a reasonable timeframe.

Planning scenarios produce optimized list of annual treatments that are used to perform detailed system-level trade-off analysis across multiple asset classes, and select projects that maximize assets performance within funding constraints. Scenario analysis can accurately evaluate minimum funding needs to meet performance targets, and to assess the impact of different funding levels on performance measures. Scenarios are also used to identify optimal budget allocations, and guide project selection to accomplish performance objectives at lowest costs.

Projects nominated into any program are subsequently analyzed and ranked based on MODA program-level performance objectives. As projects progress and funds are committed and consumed, the status of projects and funds are continuously tracked and updated to allow for continuous evaluation or adjustments to the programs, and to enable timely decisions.

Implementation of the proposed methodology was supported using a software tool, called Asset Optimizer<sup>™</sup>. Asset Optimizer is a cloud-based geo-enabled cross-asset optimization and decision analytics platform that implements various components of the proposed methodology. The software implements a comprehensive data model that embodies key data elements and relationships needed to model and analyze assets data, needs, lifecycle performance, and programming and budgeting decisions. The proposed methodology can potentially support programming and budgeting decisions at Caltrans in a number of ways, such as:

- Efficient development and management of programs and budgets across the entire transportation asset portfolio.
- Identification of optimal budget allocation and balanced investment strategies to meet performance objectives and ensure long-term sustainability of assets.
- Quantify trade-offs between funding levels and performance measures for different asset classes and groups, across the entire asset portfolio.
- Implementation of common performance management, lifecycle models, trade-off analyses, and programming decision models across different districts, thus promoting consistency and transparency in project evaluations, and establishing a quantitative and repeatable process.

The proposed methodology could become as an important tool for supporting Caltrans' programming and budgeting decisions and processes. Comparison of the projects recommended by the proposed methodology and Caltrans' 2020 Strategic Highway Operations and Protection Plan (SHOPP) projects demonstrated a reasonable level of agreement of project selections. Given the differences between our modeling approach and Caltrans' current methods, we can reasonably expect that further alignment of the modeling assumptions to better reflect Caltrans' decision criteria will result in a higher degree of agreement and consistency.

Future implementation of the methodology could be piloted for a number of selected districts, and benchmarked against current processes and actual project portfolios. This application could also implement analyses to support decisions on performance target setting and evaluation, cross-asset budget distribution, bundling analysis, multi-year program development, and funding allocations, both on a district and statewide levels.



### Acknowledgments

The author would like to sincerely thank the California Department of Transportation for their support of this project. The author especially acknowledges the support, guidance, and collaboration of Dawn Foster, Loren Turner, and Michael Johnson. Their insightful questions, and excellent guidance greatly helped to shape and direct this work. The author also appreciates the great work and support of Lee Hicks of the Division of Research and Innovation for coordinating and facilitating the project.



# Table of Contents

DIS	CLA	IMER STATEMENT	
Ab	strac	.t	i
Exe	cuti	ve Summary	ii
Acl	know	/ledgments	iv
1	Intr	oduction	1
2	Bac	ckground	2
3	Ove	erview of the Proposed Cross-Asset Optimization Methodology	4
	3.1	Asset Class-Level Analysis	5
	3.2	Cross-Asset System-Level Analysis	5
	3.3	Program-Level Analysis and Decision-Making	5
4	Ove	erview of the Information Model	7
5	Life	ecycle Modeling of Individual Asset Classes	12
	5.1	Assets and Models Hierarchy	12
	5.2	Performance and Risk Predictive Modeling	13
	5.3	Modeling of Treatments Costs, Benefits, and Applicability Rules	15
6	Ass	set-Generic System-Level Multi-Objective Optimization Technique	16
7	Sys	tem-Level Investment Trade-off Analysis	20
	7.1	"What If" Scenarios for Funding, Performance, and Needs Analysis	20
	7.2	Capital versus Maintenance Investment Levels Trade-off Analysis	23
	7.3	Cross-Asset Budget Allocation Trade-off Analysis	29
8	Bur	ndling Analysis	36
9	Pro	gramming and Budgeting Process	39
	9.1	Setting Performance Targets and Assembling Project Candidates	42
	9.2	MODA-Based Project-Level Trade-off Analysis	44
	9.3	Managing and Tracking of Programs and Budgets	52
10	Cor	nparison of Analysis Results and SHOPP Projects	58
11	Exa	Imple District-Level Cross-Asset Budget Allocation	63



12	Met	hodology Applicability to Other Asset Classes	.66
13	Conclusions67		67
14	References		68
App	bend	ix A:	71
Pre	limir	nary Life Cycle Modeling and Planning Scenarios of Caltrans SHS Bridges	71
	A.1	Data Sources and Analysis	72
	A.2	Data Limitations for Deterioration Modeling	81
	A.3	Performance and Risk Modeling Approach of Caltrans Bridge Inventory	84
	A.4	Deterioration Modeling	.89
	A.5	Defining Bridge Groups	92
	A.6	Defining Deterioration models for Bridge Groups	95
	A.7	Condition Predictions Using Incremental Models	101
	A.8	Bridge Treatments Models	106
	A.9	System-Level Condition and Risk Metrics	110
	A.10	Preliminary Planning Scenarios and Trade-off Analysis	111
Арр	bend	ix B:	117
Pre	limir	nary Life Cycle Modeling and Planning Scenarios of Caltrans SHS Pavement	117
	B.1	Data Sources and Analysis	118
	B.3	Pavement Condition Data and Performance Measures	122
	B.4	Development of Pavement Condition Indices	128
	B.5	Defining Pavement Groups	130
	B.6	Defining Deterioration models for Pavement Groups	132
	B.7	Risk Model and Criticality Factors	135
	B.8	Pavement Treatments Models	136
	B.9	System-Level Condition and Risk Metrics	138
	B.10	Preliminary Planning Scenarios and Trade-off Analysis	139
Арр	bend	ix C:	145
Cor	npar	ison of Optimization results and SHOPP Project Portfolio	145



# List of Figures

Figure 1: An abstract input-output view of the TAM programming process
Figure 2: Different levels of trade-off analysis in the proposed methodology
Figure 3: Schematic of the main processes and information flow in the proposed methodology 6
Figure 4: High-level conceptual Entity Relationship Diagram (ERD) of the proposed data model 7
Figure 5: Organization of Assets and Models into a Hierarchy12
Figure 6: Treatments Impact on Assets Performance Measures
Figure 7: Flowchart of the optimization approach used in "what if" scenario analysis
Figure 8: Using data, models, and scenarios to search for optimal treatments for each asset 19
Figure 9: Types of "what if" investment scenarios 20
Figure 10: Using asset class-specific scenario results to support cross-asset analysis
Figure 11: Need for analyzing proper balance between capital and operational expenditures 23
Figure 12: Conceptual view of CapEx/OpEx trade-offs, showing optimal performance-Totex balance
Figure 13: Average Annual CapEx and OpEx Costs for Analyzed Bridge Scenarios
Figure 14: CapEx/OpEx Trade-Offs of SHS Bridge Scenarios
Figure 15: Average Annual SHOPP (CapEx) and Maintenance (OpEx) Costs for Pavement Scenarios
Figure 16: Capex/OpEx Trade-Offs of SHS Pavement Scenarios
Figure 17: Using scenario results to optimize budget allocation among multiple asset classes 29
Figure 18: Steps performed to find optimal budget distribution among different asset classes 30
Figure 19: Evaluating all scenario combinations to optimize cross-asset budget allocation



Figure 20: Example for optimizing budget allocation across Caltrans bridge and pavement asset classes given an average portfolio annual budget of \$2.2 billion (optimal allocation shown in red)
Figure 21: Example of cross-asset project bundles based on spatial and temporal constraints 37
Figure 22: Example of cross-asset treatment bundles for bridge and pavement treatments recommended by the SHOPP 10-year planning scenario
Figure 23: Key Steps for Program Development in the Proposed Methodology
Figure 24: An example of using scenario analysis to compare %Good, %Fair, %Poor performance outcomes against set targets based on a 20-year plan
Figure 25: Caltrans MODA Objectives Hierarchy (Based on 2015-2020 Strategic Management Plan)
Figure 26: Example of Setting up a Subset of Caltrans MODA Goals and Objective Functions 48
Figure 27: Example input of project parameters for estimating MODA value functions
Figure 28: Ranking project candidates based on B/C ratio and nominating highest value projects for programming. Highest-Value Candidate Projects for Program Nomination
Figure 29: Example use of the CARAT Service for a Small Set of Projects
Figure 30: An example of setting up a funding source in the example program
Figure 31: Example program summary of fund allocations from multiple sources to different projects
Figure 32: An example of a generic program workflow for project advancement
Figure 33: An example project portfolio showing details of a specific project including the list of tasks (treatments), allocated funds, and workflow status
Figure 34: Example summary program status showing annual allocated funds, estimated costs, and actual expenditures
Figure 35: Screen capture of the 2019 bridge NEEDs sheet, and 2020 SHOPP projects and report (bottom) used for comparison



Figure 36: Map of bridge NEEDs and official SHOPP projects used for comparison
Figure 37: Map of District 4 pavement projects used for comparison
Figure 38: Cross-Asset Budget Allocation Trade-Off Analysis for Bridges and Pavements in District 4
Figure 39: Number of SHS bridges by Design/Construction Type (Item 43B)72
Figure 40: Number of SHS bridges by Material and Design type (Items 43A and 43B)73
Figure 41: Number of SHS bridges by Built Year74
Figure 42: FHWA Performance Measure for SHS Bridges based on NBI 2018 Data by deck area
Figure 43: Historical trend of average Condition Index (top) and Risk Index (bottom) for SHS bridges (weighted by total deck area)
Figure 44: Historical trend of weighted-average condition of deck, superstructure, and substructure
Figure 45: FHWA Performance Measure for SHS Bridges by count and deck area
Figure 46: FHWA Performance measure for SHS bridges (by deck area- top, by count-bottom) 78
Figure 47: Changing deck condition due to deterioration and maintenance actions
Figure 48: Boxplot of age of SHS bridges for each deck condition state, showing decks in condition 7 and 8 to have a higher median age than bridges in condition 4 and 5
Figure 49: Frequency distribution of SHS deck condition and bridge age (2018 NBI data)
Figure 50: Proposed Bridge Risk Model
Figure 51: An example deck condition history for a concrete box girder bridge (Structure No. 01 0016)
Figure 52: Number of bridges in the defined 24 groups as % of SHS bridge inventory
Figure 53: Average waiting times in each condition state of the deck component in the non- interstate box girder (multiple) continuous concrete bridges



iх

Figure 54: Fitting different distributions for the cumulative average waiting times
Figure 55: Examining Weibull parameters and goodness of fit for each model
Figure 56: Deck condition distribution with age for the non-interstate box girder (multiple) continuous concrete group, using censored data and assumed Weibull distribution
Figure 57: Distribution of initial deck condition ratings with respect to defined Weibull model for the non-interstate concrete box girder bridges (multiple-continuous)
Figure 58: Using the deterioration models to predict future condition states starting from initial states using an incremental recursive approach
Figure 59: An example showing historical vs predicted deck condition for three sample bridges 103
Figure 60: 20-Year predictions of deck, superstructure, and substructure conditions for some bridges
Figure 61: Example prediction of Condition Index and Risk Index for some bridges
Figure 62: Deterioration models help show the Impact of historical maintenance/preservation actions
Figure 63 Example results of the \$800 million scenario showing average condition index (ton-left)
average risk index (top-right), number of projects (bottom-left), and cost of projects
Average risk index (top-right), number of projects (bottom-left), and cost of projects
Figure 60: Example results of the \$800 million scenario showing weighted-average condition indexand condition states of deck, superstructure and substructure components by deck area.113Figure 65. 10-year projects selected under the \$800M scenario
Figure 60: Example results of the \$800 million scenario showing weighted-average condition indexand condition states of deck, superstructure and substructure components by deck area.114Figure 65. 10-year projects selected under the \$800M scenario115Figure 66. Comparison between four budget scenarios (Do-Nothing, \$500M, \$800M, and \$1B),showing impact of different budget levels on system-level condition and risk indices.
righter del Example results of the \$000 million scenario showing weighted-average condition indexaverage risk index (top-right), number of projects (bottom-left), and cost of projects
Figure 66: Example results of the \$600 million scenario showing uverage condition mask (top-right), number of projects (bottom-left), and cost of projects
average risk index (top-right), number of projects (bottom-left), and cost of projects



Figure 71: Length of SHS Pavement by Surface Type for NHS and non-NHS Highways
Figure 72: Length of SHS Pavement by NHS Classification
Figure 73: Spatial join of SHS Coarse Segments and HPMS Data to Calculate Average Distresses in Coarse Segments
Figure 74: Current Performance Measures (2018) of the SHS Pavement Inventory
Figure 75: Total Annual Travel on Pavement in Different Condition States
Figure 76: Total Length of Pavement in Different Condition States for NHS and non-NHS 125
Figure 77: Total Length of Pavement Assets in Different Condition by Functional Class
Figure 78: Total Length of Pavement Assets in Different Condition by Surface Type
Figure 79: Correlation of Calculated PCI_2 and FHWA Performance Measures
Figure 80: Condition Index (PCI_2) Distribution for NHS and non-NHS Highways
Figure 81: Number of segments in the defined groups as % of SHS pavement inventory
Figure 82: Examining different distributions to model deterioration of AC Interstate pavement 132
Figure 83: Example for predicting condition indices of AC Interstate segment (top) and predictions of IRI for pavement segments in different groups (bottom)
Figure 84: Proposed Pavement Risk Model
Figure 85. System-level average condition index (top) and risk index (bottom) under example planning scenarios
Figure 86. Cracking and roughness distresses and condition indices under example planning scenarios
Figure 87. Example results of the \$1 billion scenario showing average condition indices (top-left), performance measures (top-right), and total cost of recommended treatments by type (bottom-left) and group (bottom-right)
Figure 88. A map of 10-year pavement treatments selected under \$1 Billion scenario



## List of Tables

Table 1. Description of Some Key Entities in the Proposed Data Model      8
Table 2. Average CapEx, OpEx, Totex, and Condition Index for Bridge Scenarios    24
Table 3. Average Annual CapEx/OpEx/Totex and Condition Index for Pavement Scenario
Table 4. Summary of AALC Calculated for SHS Bridge and Pavement Inventory
Table 5. Total Replacement Value calculation for SHS Bridges and Pavements
Table 6. Replacement Value Calculation for District 4 Bridge and Pavement Inventory
Table 7. Historical Percentage of Good, Fair, Poor Bridges for SHS, SHS-NHS, and SHS-Non-NHS79
Table 8. Values of Condition Reduction Factors
Table 9. Historical Deck Condition Rating for an Example Bridge (01 0016)
Table 10. Historical Deck Condition Rating for Bridge 01 0016 After Censoring
Table 11. Definition of SHS Bridge Groups
Table 12. Deck condition waiting times in the example group
Table 13. Characteristic Life Parameter ( $\alpha$ ) for the 24 Groups Weibull Models
Table 14. Treatments' applicability criteria
Table 15. Unit costs, improvements, and some rules used in the proposed model 109
Table 16. Example budget splitting limits assumed for some scenarios    112
Table 17. Performance thresholds for pavement condition categories    123
Table 18. Calculation of Pavement Overall Condition Measure    123
Table 19. Definition of SHS Pavement Groups 131
Table 20. Exponential Parameters (a, b) for Modeling Pavement Distress Progression
Table 21. Treatments' applicability criteria
Table 22. Assumed unit costs and condition improvements      138



## 1 Introduction

Cross-asset programming and resource allocation has been a long-standing challenge for transportation asset management (TAM). TAM programming decision-making is inherently an integrated cross-asset and multi-objective process that requires the assimilation of a multitude of data and models, involving system-level trade-offs to optimize project selections and budget allocations, while considering performance targets and risk levels across all asset classes. Current work practices have resulted in significant process fragmentation, which have created inefficiencies for implementing effective cross-asset analyses, mainly due to the difficulty to integrate and streamline inter-dependent data and decision models within and across departments or functional units managing different asset classes or sub-systems. This challenge has been exacerbated with the presence of several asset-specific isolated management systems, that created "silos" of information and decisions. Today, many of the analysis steps and processes undertaken for TAM programming and resource allocation are mostly performed in an unstructured or qualitative manner, considering a subset of the asset portfolio (e.g., specific asset classes, departments or districts), and without quantifying system-level or long-term trade-offs and implications of decisions.

TAM programs allocate, typically limited, funds among competing projects to address different types of assets' needs across different asset classes. Selected projects should meet a range of constraints imposed by policies and strategies designed to meet organizational objectives with respect to specific performance and risk targets. With rising demands to meet higher and sustainable performance targets, combined with an ever-limited budgets, deteriorating assets, and complex regulatory requirements, there have been a broad consensus on the need to develop a new cross-asset optimization methodology that can potentially "bridge the gaps" through providing a holistic decision-making framework that enables the integration of TAM programming processes.

Over the past years, Caltrans has undertaken several initiatives to optimize strategies and programs for preserving and improving its vast transportation network. In fact, the application of cross-asset optimization for program development has been an active research at Caltrans since 2012 [1]. This project falls under Caltrans' business strategy to enhance TAM programming and budgeting decisions on a statewide and district levels.

In an abstract form, the asset investment planning (AIP) and cross-asset optimization model can be viewed as a process that maps four inputs to two outputs (Figure 1). This process utilizes information on asset classes inventories and sets of identified needs, and apply constraints on funding levels and performance targets, to produce sets of optimized cross-asset multi-year programs, which in turn will be summarized and communicated in a number of plans and reports (e.g., TAMP, STIP). This mapping process is achieved through a series of analyses iterations until programs and performance measures are optimized and balanced to meet desired targets within funding constraints.

This project proposes a novel cross-asset optimization methodology to help Caltrans optimize programming and budgeting processes across the entire transportation asset portfolio. The



methodology integrates with Caltrans' project-level multi-objective decision analysis (MODA) model, and enables system-level cross-asset analysis to support:

- Efficient development and management of capital and maintenance programs across the entire highway system asset portfolio; and
- Identification of optimal budget allocation and balanced investment strategies across different asset classes to meet performance objectives and ensure long-term sustainability of infrastructure assets.

The methodology provides a set of techniques to select projects that maximize assets performance within funding constraints; identify optimal and balanced budget allocations to accomplish performance objectives at lowest costs; quantify trade-offs between funding levels and performance measures; and accurately evaluate funding needs and the impact of different investment strategies on performance measures. The proposed methodology is supported by a software tool, called Asset Optimizer. The scope of this project was limited to two classes of transportation assets: pavements and bridges. However, the applicability of the proposed methodology has been evaluated in the context of supporting other asset classes.



Figure 1: An abstract input-output view of the TAM programming process

## 2 Background

Over the past decade, Caltrans has undertaken several initiatives to study and implement crossasset optimization for program development. In 2012, CTC & Associates LLC performed a study on behalf of Caltrans' Division of Research and Innovation (DRI) to investigate the application of cross-asset optimization in transportation asset management [1]. The study reviewed the state-ofpractice and related research, and concluded that no state DOT, at that time, has completed an



implementation of cross-asset optimization within and across all asset categories at both the system and project levels. The study concluded that state DOTs' practices appeared to prioritize projects based on ranking criteria defined by a utility function, and *no applications of optimization methods were reported*.

In 2014, Caltrans initiated a pilot project to develop a new multi-objective decision analysis (MODA) model to assess projects benefits (or values) and to prioritize the Strategic Highway Operations and Protection Plan (SHOPP) projects based on value-to-cost ratios. The MODA model and associated Excel-based tool were tested using the existing 2014 and 2016 project portfolios. However, a number of limitations of the new model were observed and a number of improvements were recommended [2, 3].

Other notable efforts to solve the cross-asset optimization problem include the work undertaken by Cambridge Systematics Inc on behalf of the New Jersey DOT's (NJDOT) Office of Capital Investment Strategies (CIS) to develop a decision support model to optimize budget allocation decisions [4]. The study reviewed current practices in Florida, Georgia, Michigan, Ohio, and Utah DOTs and concluded that projects are often prioritized using scoring approaches with greater reliance on manual processes, where asset management systems are used to predict performance given a budget scenario. The study also proposed a utility function to aid NJDOT to prioritize projects with the objective to maximizing utility.

The FHWA's Transportation Asset Management Expert Task Group (TAM ETG) published a discussion paper [5] that emphasized the need to address cross-asset trade-offs and optimization, as the next generation of innovation to improve decision-making in transportation agencies. The TAM ETG defined cross asset optimization as "the use of recursive mathematical computations to determine the maximum utility for a given set of investments constrained by defined performance parameters." The discussion paper emphasized that the use of an optimization approach would produce more sophisticated and quantified results but require extensive asset and project data.

The NCHRP Report 806 [6] proposed a model and developed Excel-based prototype to demonstrate the feasibility of a cross-asset budget allocation approach to support performance-based project prioritization, and program development. Although the study emphasized the importance of optimization models for developing cross-asset programs, it also highlighted the associated challenges for testing all combinations of assets and alternative improvement actions, which would be infeasible to enumerate and search using traditional brute-force search methods.

Thompson et al. [7] extended the models developed in the NCHRP Report 806 and proposed a cross-asset performance-based framework to support trade-off analysis and asset management planning. The framework considered both asset-specific and asset-generic models for TAM planning, and provided a methodology for setting and tracking performance targets. The report proposed the development of an Excel-based asset-generic trade-off analysis tool that consumes data from existing bridge and pavement management systems.

Focusing on TAMS financial planning aspects, the NCHRP Report 898 [8] proposed a 10-step methodology to support the development of investment strategies. The methodology starts by defining investment scenarios and forecasting future asset performance based on the defined scenarios. The methodology then identifies project candidates based on initial budget allocation, and subsequently selecting projects for each scenario and then finalizing budgets. The study



noted that projects should be selected to maximize benefits while minimizing lifecycle costs, subject to budget constraints. However, the study acknowledged that "*determining a mathematical optimum may be difficult or impossible unless the selection is performed within more narrowly defined categories*," and therefore the study proposed using the MODA approach if the budget is set for "fewer" or "broadly defined" asset/investment categories.

#### 3 Overview of the Proposed Cross-Asset Optimization Methodology

Lessons learned from previous work highlighted the challenges and the need for integrating assetlevel, system-level, and program-level analyses in the same framework. Combining these multiple types of analyses in a single framework is critical to support efficient information flow and decisions, which are typically inter-dependent. These trade-off analyses inform and guide decisions with respect to performance target setting, project selection and prioritization, multi-year program development, and budget allocation. Justification of decisions and communication with stakeholders also require close integration among these different levels of analysis. However, none of the previous work we reviewed seemed to offer a framework that can integrate these multiple levels of analyses. Our proposed methodology is an attempt to accomplish this goal.

Figure 2 depicts the typical flow of information across the three levels of analyses. A brief description of each level is provided below.



Figure 2: Different levels of trade-off analysis in the proposed methodology



#### 3.1 Asset Class-Level Analysis

TAM programming requires analyzing a portfolio of dissimilar assets with unique lifecycle, performance, and risk parameters to find the best trade-offs and optimal project mix. This analysis is performed on each individual asset class (bridges, pavement, culverts, TMS, etc.), considering assets unique lifecycle models, performance objectives, treatment strategies, and investment scenarios. This step involves the development of optimal multi-year lists of treatments for individual asset classes under a range of scenarios using the multi-objective optimization algorithm.

#### 3.2 Cross-Asset System-Level Analysis

Programming decisions always involve balancing competing objectives (cost, performance, risk, etc.), and therefore performing trade-off analysis is required to inform and guide decisions at multiple levels. System-level trade-off analysis is then performed using the results from asset class-specific scenarios, and considering system-level performance measures to identify ideal budget allocation and select the scenarios that maximize overall portfolio performance. This analysis also evaluates trade-offs between funding levels and performance measures, trade-offs between capital and maintenance funding levels, and trade-offs between investment distribution among different asset classes (e.g., bridges versus pavement investment levels).

System-level trade-off analysis establish a quantitative relationship between investment levels and distributions versus performance measures, which will guide decisions on balancing investments across different programs and asset classes. In addition, this analysis would identify opportunities for bundling treatments into practical projects to reduce costs and risks, improve coordination, and increase project delivery efficiencies.

#### 3.3 Program-Level Analysis and Decision-Making

Program-level analysis involves using the set of optimized treatment candidates produced by the previous levels of analyses to support the assembly and evaluation of project portfolios, and guide decisions on project selections and prioritization, as well as program and budget development. The set of candidate projects are evaluated using techniques such as multi-objective decision analysis (MODA) and lifecycle benefit-cost analysis (BCA). Project evaluations typically utilize organizational performance measures that are common to all asset classes (e.g., safety, mobility, environmental sustainability).

Figure 3 shows a schematic of the proposed methodology, depicting the organization, interrelationships, and information flow of the key processes that are typically undertaken within TAM programming. It is worth noting that the arrows in this diagram mainly depict information flow among different processes, and do not necessarily reflect a sequential order of execution. In fact, at any point in time, many of these processes may be running concurrently to support different levels of analyses and decision-making. The remaining sections in this report provide more details on these processes.





Figure 3: Schematic of the main processes and information flow in the proposed methodology



## 4 Overview of the Information Model

Efficient implementation of the proposed methodology requires the use of an integrated and comprehensive data model that embodies key data elements and relationships needed to model and analyze assets data, lifecycle performance, and programming and budgeting decisions. This data model should satisfy the information requirements of each process depicted in Figure 3, and should define common and consistent semantics to ensure data integrity and consistency across various processes.

Figure 4 shows a high-level conceptual Entity Relationship Diagram (ERD) of the data model, highlighting the key entities and relationships. This diagram uses crow's foot notation to describe the relationships between entities. A brief description of some of the key entities is provided in Table 1.



Figure 4: High-level conceptual Entity Relationship Diagram (ERD) of the proposed data model



Table 1. Description of Some Key Entities in the Proposed Data Model

Entity	Description
Treatment	Treatment represents one or more action (i.e., work type) such as rehabilitation, repair, replacement, or functional improvement actions (e.g., deck overlay, bridge replacement, HMA thin overlay, etc.). These actions are applied to a specific asset, and has associated time and estimated cost. Treatment models are asset-type specific and used to optimize project selections in a given planning scenario. Treatment models include: cost model, benefit (or effectiveness) model, and a set of applicability (or feasibility) constraints that describe the rules or strategies for applying a specific treatment type. Treatments can be recommended based on NEEDs, optimization of planning scenarios, or based on other criteria (e.g., performance objectives).
Treatment Bundles	A collection of treatments applied to different assets, which may be of the same or different asset types. Bundles are identified based on spatial and temporal analysis and can be used to coordinate/align projects to increase efficiencies. Treatment bundles can be used to define project candidates for a specific program.
Project	A project can include one treatment or a bundle of treatments applied to one or more assets, possibly of different types (e.g., bridge and pavement treatments). Key project attributes include date, cost, estimated cost, advertisement date, status, etc.
Program	A program is a collection of projects that are planned and delivered over multiple years following specific guidelines (e.g., meeting specific organizational goals, funded through specific sources, time horizon, etc.). Programs are initially assembled from a collection of candidate projects that are subsequently planned, programmed, and delivered following pre-defined workflow processes.
Proposed Work (or NEED)	NEEDs represent proposed treatments identified based on asset deficiencies or performance requirements. Part of NEEDs identification also involves identifying the recommended treatment (or work type), time frame, and estimated cost. NEEDs can be bundled and used to recommend projects.
Multi-Year Planning Scenario	Investment planning scenarios are used to evaluate the impact of various funding levels on assets performance and risk measures, and to evaluate funding requirements to achieve performance targets. Optimization is used to automatically identify treatments that will maximize assets performance, minimize risk, at the lowest costs. For each asset, a scenario defines an optimal plan for maintaining the asset over the planning horizon, including all treatments, times, costs, and predicted values of performance measures.



Entity	Description
Assets Portfolio	This entity represents the highest level in the asset hierarchy, which includes all asset types and assets organized in a tree-like structure. A typical asset hierarchy arranges the asset portfolio into different asset systems, classes (or types), and sub-classes. An example asset portfolio includes asset systems such as bridges, pavement, TMS, culverts, etc. Any number of levels of sub-classes may be defined to organize specific groups of assets (e.g., based on districts, functional classification, etc.). An asset class includes the asset inventory, along with any related data (e.g., inspection, condition, etc.).
Asset System	Asset systems are collections of Asset Classes of a specific type of assets. For example, the pavement asset system may include asset classes such as Class I, Class II, and Class III Pavement Segments, whereas a bridge asset system may include interstate bridges and non-interstate bridges as separate asset classes.
Asset Class	An asset class represents a collection of assets of one or more types that will be used to define consistent sets of performance metrics, treatment strategies, lifecycle models, and planning scenarios. An asset class is often defined for one asset type (e.g., bridges or pavement. However, a class may also include assets of different types.
Asset Sub-Class	Asset sub-class is another level of assets grouping to organize assets within a class based on some key asset attributes. Examples of asset sub-classes may group bridges or pavement under the bridge or pavement classes based on owner (State, Local, etc.), District, or Functional Classification (e.g., Interstate, NHS).
Asset Inventory	Asset Inventory is a collection of records for assets that belong to a specific asset class. Examples of asset inventories include bridge NBI data, or pavement HPMS tables. Asset records can include any set of asset attributes, depending on the type of asset. Asset Inventory may include "historical" data of the asset class records. For example, the asset inventory of bridges may include historical NBI inventory records.
Asset Group	Asset groups are collections of assets that are assumed to have somewhat "homogeneous" characteristics in terms of their deterioration rate and/or criticality (or expected consequence of failure). Asset groups are used to define a consistent set of lifecycle models to predict asset performance and criticality, and therefore, are expected to exhibit enough similarity to allow the development of these models at an appropriate level of graduality. For example, a bridge inventory may be subdivided into different asset groups based on functional classification, bridge material, structural system, etc. (e.g., interstate concrete box girder continuous span bridges, non-interstate prestressed girder bridges, etc.). It is important to define asset groups at an appropriate level of granularity to balance the level of desired accuracy in predicting performance and criticality, with the time and effort needed to build asset group-specific models.



Entity	Description
Asset	Asset is the basic physical entity in the transportation infrastructure system, which is managed and preserved throughout its life cycle. Examples of assets include a bridge, pavement segment, or culvert. Asset records populate an asset inventory, which belongs to a specific asset class. A typical transportation system includes many different types of assets; each has unique physical, operational, and risk characteristics, and require specific treatment methods and management strategies.
Cross-Asset Analysis	Analysis that considers a portfolio of assets from different classes for purposes of: (1) optimize budget allocations to balance investment strategies across multiple asset classes and direct investments where needed; and (2) optimize project selection and bundling to improve program development and delivery. Unlike system (or network)-level analysis that considers assets and treatments in the same asset class (e.g., pavement or bridge assets), cross-asset analysis aims to maximize performance of the entire asset portfolio and increase efficiencies/benefits of projects involving multiple asset classes. This research project proposes a set of tools for cross-asset analysis to support life cycle planning and program development process.
Performance Measure	Performance measures are a set of asset attributes that are used to record, analyze, predict, and report asset performance metrics. Examples of these measures include deck, superstructure, or substructure condition of a bridge, or the distress parameters (IRI, rutting, cracking, or faulting) of a pavement segment. These measures are often time-dependent attributes, unlike static asset attributes such as location, material construction year, etc. Other time- dependent variables may include traffic volume or scour. Because of the "dynamic" nature, each performance measure is associated with a predictive model to forecast its value at any point in the future. Performance measures can have inter-dependencies and as such be defined using a hierarchical structure (e.g., bridge condition can be derived from the condition of deck, superstructure, and substructure). Similarly, the condition of a pavement segment can be calculated based on IRI, rutting, and cracking indices. Asset condition, criticality, and risk are calculated and predicted based on one or more performance measures. While condition-related measures represent the structural adequacy of assets, criticality measures represent such parameters as essentiality to the public, functional classification, or other socio- environmental-economic factors. Performance measures are often impacted (or improved/reset) by treatments. For example, the roughness of a pavement segment will be reduced or reset as a result of an overlay. These improvements are defined as part of the treatment benefits/effectiveness models.



Entity	Description
Performance Target	Performance targets are defined for a selected set of performance measures to reflect desired or mandated performance levels to achieve over the planning horizon. Defined targets are used to assess performance gaps or funding needs required to meet performance requirements. Analysis of planning scenarios would show the impact of various investment levels on meeting performance targets. It can also help refine asset management strategies and determine required funding levels to optimally meet performance targets now and into the future.
Predictive Model	Predictive models are asset group-specific statistical models defined to help forecast an asset's future performance and risk metrics at any point in time. Deterioration models are specific types of predictive models used specifically to forecast assets condition attributes. Other predictive models may be used to predict such parameters as traffic volume, scour growth, etc. Predictive models of performance measures are defined for each asset group. For example, the deterioration model of a bridge deck may be different depending on the bridge structure type or function. However, for some models (e.g., traffic volume growth) may be used in different asset groups.
Treatment Cost / Benefit Model	For each treatment, users define cost models to estimate treatment cost based on any number of variables (e.g., unit cost, asset attributes such as area or length, condition state). Benefits are defined in terms of "condition improvement increments", which represents the treatment's effectiveness for extending the asset's service life or reducing risk of failure. Examples of improvements include higher condition ratings for bridge deck, superstructure, or substructure.
Treatment Rules / Constraints	A set of constraints are defined for each treatment to ensure the feasibility and cost-effectiveness of different treatments and reflect the specific organization's preferences, previous experience, and work practices. Some constraints may limit treatment application under some circumstances, such as certain types of asset material or based on the asset condition. Some rules may also eliminate future application of specific treatments depending on prior treatments received over the planning horizon. For example, a rule may eliminate prevent the use of repair on a deck for 10 years after it receives an overlay treatment. Another rule may specify the maximum number of occurrences of a treatment (e.g., deck repair should only be applied for two times on the same deck over the planning horizon, after which another treatment should be used).
Funding Source	A source of funding used to allocate budget to programs and projects over the years. Funding is allocated to various programs and projects. Budgets can also be allocated, de-allocated, or rolled-over.



## 5 Lifecycle Modeling of Individual Asset Classes

Asset lifecycle models, treatment strategies, and methods to assess and forecast assetlevel performance measures vary widely between different asset classes. Therefore, these models are developed separately for each asset class before considering any cross-asset analysis. This section describes some common principles of lifecycle modeling of individual asset classes. Within the scope of this project, two primary asset classes were considered: pavements and bridges. Details of the modeling and scenario analysis of Caltrans bridge and pavement state highway system (SHS) inventory are provided in Appendices A and B, respectively. However, the same principles can be applied to other asset classes.

#### 5.1 Assets and Models Hierarchy

Asset data and lifecycle models are organized in a flexible tree-like hierarchical structure that organizes data into asset systems, classes, and groups (Figure 5). The hierarchy maintains all cross references between inventories, assets, performance measures, needs, projects, programs, and funding sources.



Figure 5: Organization of Assets and Models into a Hierarchy



For a typical TAM asset portfolio, asset systems may include different asset types (e.g., bridges, pavement, culverts, TMS, facilities) or assets in different organizational units (e.g., districts, local agencies). Asset systems, classes, and groups are defined based on modeling requirements, performance objectives, and funding allocation rules. Assets may be organized based on asset types, functional classification, or organizational units. Asset systems are considered containers of asset classes. Based on modeling and planning requirements, asset classes may be defined to include the same or different asset types. For example, one asset class may include all bridges or all pavements, whereas another class may include different types of Traffic Management Systems (TMS) assets (signs, signals, lighting, etc.). Different classes may also be defined for different sets of the same asset types. For example, different asset classes may be defined for interstate and non-interstate bridges.

Assets in the same asset class share a common set of performance variables, treatment models, and a risk model. Treatment models that define costs, benefits, and rules for applying different treatment actions. "What if" planning scenarios are defined and optimized for each separate asset class. Scenarios may define a specific funding profile over the planning horizon to assess the impact of funding levels on system-level condition and risk levels. Scenarios may also be defined to evaluate budget requirements to achieve certain system-level risk or condition levels. For each scenario, treatment lists are generated on an annual-basis to satisfy all defined constraints.

Asset groups can be defined for different subsets (or cohorts) of assets in the same class, based on physical or operational attributes, functional classification, deterioration and risk characteristics, geographic areas, or funding programs. Asset groups are assumed to have general characteristics in terms of their deterioration rate and/or criticality (e.g., design and construction type, material, functional class, etc.). Performance and criticality predictive models are defined separately for each group, taking into consideration specific data and modeling requirements.

#### 5.2 Performance and Risk Predictive Modeling

Development of performance-based TAM programs relies on the assessment, forecasting and trade-off analysis of several asset-level performance measures, which requires the use of robust and reliable predictive models. Different asset classes have unique characteristics, performance measures, and risk factors. Different asset classes also have different levels of data availability, which often determine possible modeling methods and planning requirements. For example, while extensive data sets are typically available for bridge and pavement assets over multiple years, limited data sets are often available for some asset classes such as culverts and TMS. While available data would allow the development of fairly detailed predictive models in the first case, data limitations will require the use of simpler age-based data models in the latter.



Performance measures are a set of, possibly inter-dependent, asset attributes to record, analyze, predict, and report asset performance and risk metrics. Examples of these measures include the deck, superstructure, or substructure condition of a bridge, or distress parameters (IRI, rutting, cracking, faulting) of a pavement segment. Performance measures are used to describe asset-specific attributes such as its condition state, extent of distresses, capacity, or functional adequacy (e.g., bridge horizontal or vertical clearance, or lane width with respect to traffic volume). They may also be used to describe asset-level risk factors such as vulnerability or resilience (e.g., seismic or scour criticality).

The methodology utilizes a risk index metric to optimize selection of treatment type and timing to minimize risk at the lowest lifecycle costs. The risk index reflects asset condition (e.g., the structural adequacy of assets or the likelihood of asset failure) and criticality (e.g., consequence of failure, considering such factors as essentiality to the public, functional classification, or other socio-environmental-economic parameters). In this context, these asset-level risk factors which are considered as measures of performance, should be distinguished from other agency-wide systemic risks that are not asset or site-specific, such as uncertainty of future funding, regulatory requirements, or political and market factors [10]. These systemic risks are typically evaluated separately in a risk management plan, and not directly linked to the proposed methodology.

To accommodate the requirements of different asset classes with respect to different condition, capacity, or criticality factors, the proposed methodology allows the definition of a hierarchy of performance measures along with any dependencies, thus allowing for the modeling of diverse asset classes consistently within the same framework. Appendices A and B provide examples for modeling bridge and pavement performance measures, using relatively detailed models. However, more, or less, sophisticated models, or any agency-specific models could also be used instead.

Performance measures are calculated for each individual asset, and then aggregated and rolled up to system level using appropriate asset weightings. For example, the condition index of each bridge can be calculated and rolled up to a system-level average condition index based on a weighting factor (e.g., bridge deck area) reflecting the contribution of each individual asset to the system-level measure. Performance measures may also be aggregated and rolled up based on any assets grouping criteria (e.g., interstate versus non-interstate assets, different districts or local agencies) or to satisfy reporting requirements. For example, the condition state of bridges and pavement segments can be used to calculate the %Good and %Poor, for reporting the federal Transportation Performance Management (TPM) measures.

Some performance measures may be associated with specific targets to reflect the state-of-good-repair for a particular asset class. Achieving desired performance targets typically guides project selection, programming and investment decisions. "What-if" scenarios can be used to set feasible performance targets, investigate the impact of alternative investment decisions on these targets, and to determine funding requirements that achieve and sustain the targets over defined planning horizon.



Each time-dependent performance measure requires the definition of a predictive model to forecast its future value at any point in time. Predictive models can be based on a variety of statistical distributions (Weibull, exponential, polynomial, etc.), and may be univariate or multivariate models, depending on the available data and sophistication of the modeling approach. In this project, we employed several techniques to develop performance models for bridges and pavements, as described in Appendices A and B.

#### 5.3 Modeling of Treatments Costs, Benefits, and Applicability Rules

Treatment types and timing have a significant impact on assets performance, risks, and funding needs. Treatments include all possible interventions that can be applied to address assets deficiencies through their lifecycle, including preservation, major or minor rehabilitation, functional improvement (e.g., widening), risk mitigation (e.g., seismic and scour mitigation), and partial or full replacement actions. Treatments are typically selected to address specific deficiencies or improve specific performance measures, at a specific time (Figure 6). The proposed methodology provides a flexible scheme to define different types of treatments with sets of customizable rules and formulae to reflect specific agency's preferences, experience, and work practices.

Treatment cost models are defined based on parameters such as unit costs, asset attributes, and condition state. Benefits models represent expected incremental improvements (or resets) resulting from specific treatments including condition or capacity improvements, risk mitigation/reduction, and extending assets service life.

Treatment constraints define triggers and technical and economic feasibility of applying a treatment. Constraints are defined to limit the application of a treatment under certain



Year (or age)



circumstances. For example, a particular treatment may only be applicable to certain types of material or within a defined range of condition ratings. In addition, constraints may also be used eliminate future application of specific treatments depending on prior treatments received over the planning timeframe. For example, a rule may eliminate the use of repair on a deck for 10 years after it receives an overlay treatment. Another rule may specify the maximum number of occurrences of a particular action (e.g., deck repair should only be applied for two times on the same deck over the planning horizon, after which an overlay or deck replacement should be used). Constraints can also be defined



to limit total expenditure or total amount of treatments in a particular work program (e.g., limiting expenditure on bridge replacement to 60% of the total budget).

Treatments models are subsequently used to optimize the selection of treatments with the best cost-benefit trade-offs. Optimal treatment timing is determined by the optimization approach described in the next section. Treatments should be applied at the right time to extend assets life and avoid more costly treatments (e.g., replacements) and reduce the risks associated with treatment deferral. For example, delaying preservation treatments will cause assets to further deteriorate to a point where costly actions will be required.

#### 6 Asset-Generic System-Level Multi-Objective Optimization Technique

At the heart of the proposed methodology is a unique asset-generic multi-objective optimization technique<sup>1</sup> that optimizes system-level performance and risk-based multi-year asset management plans, while considering multiple objectives: minimization of risk, maximization of performance improvement, and minimization of lifecycle costs, subject to defined funding and performance constraints. This optimization technique is used to optimize treatment selections and scenarios for all asset classes.

Over the past decade, there have been several efforts to develop optimization models to support TAM planning. A number of these efforts employed mathematical programming methods (e.g., linear programming, dynamic programming, goal programming). Most notable is the multi-objective optimization model developed in the NCHRP Project 12-67 [10], which formulated the network-level optimization problem as a multi-dimensional knapsack problem, and proposed a solution based on the incremental utility-cost (IUC) heuristic. Other notable work involved the use of multi-attribute utility functions [11], integer and dynamic programming [12], and genetic algorithms [13, 14, 15, 16].

However, most of the proposed optimization techniques have been applied to relatively small networks and have not been tested on large asset portfolios or under a practical set of objectives and constraints. In some cases, the application of these optimization techniques requires extensive user input to assign and adjust criteria and weights, and to elicit expert knowledge on proper model parameters.

Solving this combinatorial NP-hard multi-objective optimization problem on a systemlevel has been a long-standing challenge. The primary reason for this complexity arises from the enormous size and combinatorial nature of the underlying search space in practical TAM planning scenarios, which typically involve thousands of assets and numerous alternative treatments, which would be virtually impossible to explore using



<sup>&</sup>lt;sup>1</sup> This innovative multi-objective optimization technique was recognized by the ASCE Innovation Award in 2016.

brute-force search methods to enumerate and examine all feasible combinations, within a reasonable time frame.

This challenge was highlighted by several researchers and practitioners. For example, Patidar et al. [5] indicated that "very large problems involving tens of thousands of bridges and numerous alternatives to be considered over a long planning horizon are not tractable." Maggiore et al. [6] also indicated that "testing all combinations of projects and alternatives would be infeasible." More recently, Spy Pond Partners et al. [8] noted that "determining a mathematical optimum may be difficult or impossible unless the selection is performed within more narrowly defined categories." Thompson et al. [7] also suggested that due to the complexity of optimization tools, "only relatively sophisticated users of these tools expect to be able to interact with parts of the models and modify them to explore scenarios or to adapt the model."

IDS has developed an innovative algorithm that is capable of "intelligently" searching a potentially very large search space, while ensuring scalability and robustness under different circumstances to converge to an optimal solution within a reasonable timeframe [17]. The algorithm has been implemented in a practical and user-friendly software tool that does not require users to manually configure the optimization parameters, while allowing the users to focus on analyzing scenarios and trade-offs and be able to easily modify and adapt the models by defining a limited number of parameters.

The proposed optimization technique employed a dynamic programming-based genetic algorithm. The algorithm has the following four features:

- 1. **Convergence to a Global Optimal Solution.** Ability to converge to a global optimal solution at the lowest computational cost, irrespective of the size of the asset inventory or number of treatment options.
- 2. **Scalability and High-Performance.** The algorithm takes advantage of multi-core high-performance computing by executing processes in parallel. To ensure scalability and efficient operation for any problem size (i.e., size of the asset inventory or number of treatments), the algorithm can adaptively adjust its parameters to ensure fastest convergence to an optimum solution.
- 3. **Asset-Generic.** The algorithm is applicable to any asset class and follows a consistent process for assets lifecycle modeling and can adapt to varying levels of data availability.
- 4. **Easy Configuration.** Configuration of the models and scenario parameters (funding levels, performance targets, etc.) can be easily done without the need for any model formulation or scripting.

Planning scenarios can represent a range of funding levels, desired performance targets, and treatment strategies/rules. Each scenario will produce a pareto-optimal list of annual treatments that optimize assets lifecycle performance, risk, and costs over the planning horizon, subject to performance and funding constraints. The scenarios are used to investigate the impact of different funding levels, treatment strategies, or currently committed projects on performance measures. Scenarios can also be used to



evaluate funding requirements to meet identified needs or to achieve performance and risk targets. Figure 7 shows a flowchart of the scenario optimization approach.



Figure 7: Flowchart of the optimization approach used in "what if" scenario analysis

For each of the defined scenarios, the algorithm proceeds sequentially from year to year. At the beginning of each year, performance measures are predicted for each asset using defined predictive models and taking into consideration any treatments that have been planned in previous years. Assets' criticality, which reflects the possibility of structural or functional inadequacy of a given asset, is determined by evaluating a set of rules and user-defined weights that involve static or time-dependent risk factors (e.g., functional class, traffic volume, detour length, etc.).

For each asset, feasible treatments are then identified based on the defined applicability constraints. The cost and impact of each treatment are then evaluated. The multi-objective optimization model stochastically searches all possible treatment trade-offs to find a set of optimal and feasible solutions, each representing a candidate treatment list



(Figure 8). The best subset of the solutions that satisfy financial constraints and performance and risk targets are then selected for further evaluation and trade-off analysis. The selected treatments are then applied to update defined performance measures for the following planning period. In multi-year planning scenarios, this process is repeated every year throughout the planning period. Scenario analysis results are then summarized and used to support decisions on treatment selections, development of project candidates, and program development.



Figure 8: Using data, models, and scenarios to search for optimal treatments for each asset



# 7 System-Level Investment Trade-off Analysis

Optimized scenarios help to establish a quantitative relationship between investment levels and performance measures, based on defined lifecycle models and treatment strategies for each asset class. These scenarios will provide input to perform more detailed system-level trade-off analysis across multiple asset classes. Subsequent system-level analysis goes beyond individual asset classes to compare investment requirements against performance outcomes, and select projects to achieve the maximum return of investment with respect to maximization of performance within funding constraints across the entire asset portfolio. Results from multiple planning scenarios will be used to identify optimal and balanced budget allocations, which would inform and justify programming and budgeting decisions to accomplish performance objectives at lowest costs. Trade-off analysis of various scenarios will also help to accurately evaluate funding needs and the impact of different investment strategies.

#### 7.1 "What If" Scenarios for Funding, Performance, and Needs Analysis

Planning scenarios are used to assess (or simulate) the impact of various decisions and investment strategies, and investigate a wide range of trade-offs. "What if" scenarios are defined for each individual asset class. Two types of planning scenarios can be defined (Figure 9): (1) funding scenarios to evaluate the impact of funding levels on systemwide performance and risk measures; and (2)



Figure 9: Types of "what if" investment scenarios

performance target scenarios to evaluate minimum funding requirements to achieve certain performance or risk targets. System-level performance and risk measures are calculated using a weighted average based on some asset-specific attribute. For example, system-level average condition of a bridge inventory can be calculated using the deck area as a relative asset weight. Similarly, the total lane-mile of pavement segments can represent relative weights for pavements. The objective functions in the optimization model assure that:

• For a budget scenario, the recommended treatments would provide the best possible performance at the given budget; and


• For a performance target scenario, the recommended treatments would meet the performance or risk target at the lowest possible cost.

Scenario analysis is used to support decisions to allocate funding among competing projects across different asset classes, taking into consideration different types of asset treatment needs, performance objectives, and financial constraints. Analysis can be undertaken for the entire system-wide asset class or any set of specific assets, by district, region, corridor, or specific groups of assets, e.g., interstate, NHS. The following are some examples of using "what if" scenarios for analysis:

- Funding Level versus Performance Measures Trade-Offs. Scenario analysis determines the impact of funding levels on system-level performance measures over the planning horizon. It will determine the impact of varying funding levels on performance measures, and also determine the minimum funding requirements to meet defined performance targets (if feasible).
- 2. <u>Performance Target Setting.</u> Scenario analysis can be used to assess baseline performance measures, investigate the feasibility of performance targets under different financial constraints, and determine required investments to meet those targets. Comparing predicted performance measures against desired targets for different asset classes would also provide insights into required investment levels to meet targets, and can guide decisions on adjusting the targets if needed.
- 3. <u>Needs Analysis.</u> Scenarios can be used to evaluate treatment needs (or backlog) identified for different asset classes, and calculate performance outcomes and required funding to meet these needs. Needs records include information on treatment type, estimated costs, and proposed treatment date. For this analysis, the list of needs can be "forced" into the scenarios, and the analysis will determine the expected performance outcomes as well as the funding requirements and optimal timing for each need. It will also determine additional treatments that can be used.
- 4. <u>Evaluate Impact of Current and Planned Projects on Performance Measures.</u> Ongoing or committed projects can be considered, or forced-to, the scenario analysis. For these "forced" projects, the treatment types and times of these projects will take precedence over optimized treatments.

Figure 10 shows the use of asset class-specific scenarios to support system-level and program-level trade-off analysis. The following two sections describe two types of system-level analysis:

- 1. Capital versus Maintenance Investment Trade-off Analysis (Section 7.2).
- 2. Cross-Asset Budget Allocation Trade-off Analysis (Section 7.3).

Results of scenario analysis for Caltrans SHS bridges and pavements are used to demonstrate these system-level analyses in the next sections. Therefore, it is recommended that readers review Appendices A and B prior to reading the next sections.





Figure 10: Using asset class-specific scenario results to support cross-asset analysis



## 7.2 Capital versus Maintenance Investment Levels Trade-off Analysis

One of the important investment trade-offs concerns achieving the right balance between capital expenditures (or CapEx) and operational and maintenance expenditures (or OpEx) levels of investment. Decreasing capital investments for assets rehabilitation and reconstruction will lead to an increase in required maintenance funding due to increased need for emergency and unforeseen repairs (Figure 11). An optimal balance between capital and maintenance investment would achieve the best overall system-level performance at the lowest total investment (or Totex, which is defined as CapEx +



Figure 11: Need for analyzing proper balance between capital and operational expenditures

OpEx). The treatments selected through the optimization of scenarios for a specific asset class can provide the basis for the CapEx/OpEx trade-off analysis.

The planning scenarios described in the previous sections represent asset class-specific CapEx investment levels, which result in specific performance measures for each asset over the planning timeframe. These performance measures can be used to estimate corresponding annual maintenance and operational needs (or OpEx) based on historical records and local expertise. Knowing the CapEx and corresponding OpEx investment levels for each scenario, the overall cost (Totex) versus the associated system-level performance measure can be examined to find the best balance.

For each asset class, the results from each scenario can be used to calculate an annual average cost and an annual average system-level condition. Figure 12 shows a conceptual trade-off between CapEx and OpEx expenditures and possible impact on system-level performance. Analyzing this trade-off can be performed by calculating the expected operational expenditure (OpEx) for each defined CapEx planning scenario. OpEx is estimated in two parts: fixed cost and maintenance cost components. The fixed cost component is assumed to include all operation costs independent of assets condition (e.g., staff, equipment, ongoing operations costs).

The maintenance cost can be defined as a function of asset condition, which can be estimated based on historical maintenance records. In our analysis, an average unit cost was assumed for assets within a certain condition state. The impact of different combinations on the average system-level condition was then determined, where the lowest Totex value would indicate the ideal CapEx/OpEx balance.



In absence of historical maintenance costs in our analysis, we made assumptions for the two asset classes we considered. For bridges, we assumed two types of maintenance activities: major and minor maintenance. Major maintenance cost is assumed to be \$50 / sq. ft. of deck area, which is close to the cost of deck overlay, whereas minor maintenance cost is assumed to be \$8/sq. ft., which is close to the typical cost of deck repair. The average condition index of bridges requiring minor





maintenance was assumed to range between 20 and 30, whereas major maintenance would be applicable for bridges with condition index less than 20, using the condition rating scale that ranges between 0 (fail) and 55 (as new), as described in detail in Appendix A on bridges lifecycle modeling and shown in Equation 1.

Bridge Condition Index = 55 - (A+B+C+E)

Equation 1

Where, A, B, C, and E are reduction factors based on the condition of the superstructure, substructure, deck, and inventory load rating, respectively.

Based on these assumptions, the average annual maintenance cost was calculated for each bridge planning scenario. Figure 13 shows the average annual expected capital and maintenance costs expected for each of the bridge scenarios. Table 2 shows the values of average annual costs for each planning scenario, and expected average annual system-level condition index of the SHS bridge inventory.

Table 2. Average CapEx,	OpEx, Totex,	, and Condition Inc	dex for Bridge S	Scenarios

Scenario	Annual Avg Capex	Annual Avg Opex	Annual Avg Totex	BCI
Do_Nothing	\$0	\$1,726,512,192	\$1,726,512,192	35.05
800_Million	\$798,364,379	\$1,157,314,470	\$1,955,678,848	37.33
ConditionIndex_43	\$6,484,520,558	\$58,257,364	\$6,542,777,922	42.4
SHOPP_10Yrs	\$577,056,480	\$1,262,699,352	\$1,839,755,832	36.91
1_B	\$994,579,374	\$1,098,391,976	\$2,092,971,350	37.64
600_Million	\$599,985,782	\$1,288,353,778	\$1,888,339,560	36.84
800M_1.5B	\$1,045,447,692	\$1,133,183,047	\$2,178,630,739	37.54
1B_2B	\$1,417,918,949	\$1,011,820,367	\$2,429,739,316	38.07
RiskIndex_32	\$5,117,173,973	\$153,343,319	\$5,270,517,293	41.71
Average	\$1,892,783,021	\$987,763,985	\$2,880,547,006	38.17





Figure 14 shows the CapEx/OpEx trade-offs for each planning scenario. It can be seen that the \$1.0 billion scenario achieves the best balance.

Figure 13: Average Annual CapEx and OpEx Costs for Analyzed Bridge Scenarios





Figure 14: CapEx/OpEx Trade-Offs of SHS Bridge Scenarios

Similar analysis was performed for SHS pavement scenarios. We assumed two types of pavement maintenance activities: major and minor maintenance. Major maintenance cost is assumed to be \$400,000 / lane mile, which is close to the cost of medium overlay. Minor maintenance cost is assumed to be \$200,000 / lane mile, which is close to the typical cost of thin overlay. The average pavement condition index requiring minor maintenance was assumed to range between 30 and 50, whereas major maintenance would be applicable for pavement segments with condition index less than 30, using the PCI\_2 condition rating scale (0: fail to 100: as new), which is calculated as shown in Equations 2 and 3, for AC and concrete pavement, respectively, and described in detail in Appendix B on pavement lifecycle modeling.

- PCI\_2<sub>AC</sub> = 0.4\* Roughness Index +0.4\* Cracking Index + 0.2\* Rutting Index Equation 2
- PCI\_2JPCP and CRCP = 0.4\* Roughness Index +0.4\* Cracking Index + 0.2\* Faulting Index Equation 3

Based on these assumptions, the average annual maintenance cost was calculated for each planning scenario. Figure 15 shows the average annual expected capital and maintenance costs expected for each of the pavement scenarios. Table 3 shows the values of average annual costs for each planning scenario, and expected average annual system-level condition index of the SHS pavement inventory. Figure 16 shows the CapEx/OpEx trade-offs for each pavement scenario. It can be seen that the SHOPP 4-Year scenario achieves the best balance.





Figure 15: Average Annual SHOPP (CapEx) and Maintenance (OpEx) Costs for Pavement Scenarios



Scenario	Annual Avg Capex	Annual Avg Opex	Annual Avg Totex	PCI
DoNothing	\$0	\$4,216,666,907	\$4,216,666,907	60.39
1B	\$999,999,762	\$738,036,683	\$1,738,036,445	75.72
SHOPP_4yrs	\$1,126,749,633	\$282,313,911	\$1,409,063,544	76.38
800M	\$799,999,719	\$1,379,934,914	\$2,179,934,634	72.13
600M	\$599,999,633	\$2,035,785,773	\$2,635,785,407	68.98
Pavement_SHOPP_10yrs	\$1,190,941,533	\$569,184,084	\$1,760,125,617	78.34
CI_75	\$1,206,451,495	\$947,023,165	\$2,153,474,660	75.01
Average	\$846,305,968	\$1,452,706,491	\$2,299,012,459	72.42

Table 3. Average Annual CapEx/OpEx/Totex and Condition Index for Pavement Scenario



Figure 16: Capex/OpEx Trade-Offs of SHS Pavement Scenarios

Analysis of capital and maintenance trade-offs shows the most balanced investment scenarios with respect to CapEx/OpEx trade-offs. These scenarios will be considered for further analysis in subsequent steps.



## 7.3 Cross-Asset Budget Allocation Trade-off Analysis

In this step, we go beyond asset class silos to assess trade-offs of investment distributions among different asset classes. While assessing the performance of a specific asset class can be performed using well-known and widely accepted measures and analysis methods, assessing the performance of a portfolio of disparate assets is not as straightforward. There have been a number of efforts to develop a consistent approach to deal with this challenge [18]. One approach [19] recommended transforming different assets into "equivalent" asset (e.g., transforming bridges as equivalent pavement segments), and then use performance measures for the equivalent assets to allocate budget. Another approach [20] suggested formulating the problem as a linear combination of objectives and constraints for each asset type. In addition to the lack of details in the literature or evidence of validating these approaches, no clear methodology for practical application was provided in available literature.

Current practices for allocating budgets among multiple asset classes are still largely based on legacy or historical basis, which may not reflect the actual performance needs if the asset portfolio is considered in its entirety. In this project, we propose an optimization approach to allocate the overall available budget among different asset classes based on the maximization of the overall performance of the entire asset portfolio. In essence, this approach finds the ideal balance of funding allocation across different asset classes. The cross-asset trade-off analysis utilizes the results of various planning scenarios that have been generated in the previous steps (Figure 17).



Figure 17: Using scenario results to optimize budget allocation among multiple asset classes



We propose a 3-step procedure for finding optimal portfolio budget allocation (Figure 18). Starting with the set of scenarios previously analyzed for each asset class, this procedure finds the best split of available total budget among different asset classes to maximize the overall portfolio performance. In essence, this procedure determines the optimal combination of scenarios (one scenario per asset class) that maximize the assets portfolio overall performance at any given total budget. The impact of varying budget allocations to different asset classes on the overall portfolio performance is then examined. Figure 18 shows the three main steps that are performed to determine optimal cross-asset budget allocation. A summary of these steps is provided below.





#### 7.3.1 Determine Relative Weighting of Asset Classes for Portfolio Level Analysis

The definition of a normalized cross-asset performance measure requires the consideration of a relative weighting of asset classes. The weightings represent the relative value, importance, size, criticality, or impact of a particular asset class on the performance of the entire asset portfolio. Although quantifying assets relative weightings can be easily performed for assets in the same class (as was done for bridges and pavement), determining a relative weighting of different asset classes would require the use of a semi-heuristic approach. In essence, the purpose of this weighting is to answer the question: which asset class is the most important under the defined criteria, and what is the relative ranking of these classes based on their contribution to the entire asset portfolio.

Assigning weightings to asset classes can be performed using the analytic hierarchy process (AHP) approach [21], where qualitative pairwise ratings or preference can be defined. However, in an attempt to employ a more objective approach, we used a simple model to determine these weightings based on quantitative metrics such as the asset class replacement value and the average annual lifecycle cost required to maintain the asset class in a state of good repair or meet performance targets. In our analysis, we



considered two factors to calculate relative asset class weights. The following subsections describe these factors.

#### 7.3.1.1 Assets Average Annual Life Cycle Cost

The average annual lifecycle cost (AALC) can be calculated based on the planning scenarios for maintaining current condition state or the minimum investment level to achieve performance targets. For both SHS bridges and pavements classes, we generated a set of scenarios to assess minimum funding levels required to maintain current (2020) status-quo system-level weighted average condition measure, as discussed in Appendices A and B. The CI\_43 bridge scenario and the CI\_75 pavement scenario determined the annual investment levels required to maintain average status quo condition state over 10-year planning horizon (Average BCI of 43 and average PCI of 75). These scenarios showed that the AALC for bridge and pavement inventory are \$6.1 billion and \$1.2 billion, respectively (Table 4).

Asset Class	10-Year Status Quo Condition Scenario	AALC
Bridges	CI_43	\$6.1 billion
Pavement	CI_75	\$1.2 billion

 Table 4. Summary of AALC Calculated for SHS Bridge and Pavement Inventory

### 7.3.1.2 Assets Replacement Value

This factor implicitly assumes that the needs to maintain and improve assets is proportional to their replacement value. The current replacement value of SHS bridges and pavements asset classes were calculated using a simplified asset valuation approach, based on the estimated remaining service life and the current replacement cost of each asset class. The remaining service life has been estimated based on the average useful life of assets and their current age, or based on the current condition state of the assets (where remaining service life is estimated based on assets condition).

For example, Caltrans SHS bridge inventory has approximately 244 million square feet of deck area, and an average age of 37.5 years. Assuming an average 60 years of service life for a typical bridge (i.e., the current remaining service life is approximately 38%), and \$635 per square foot of new replacement with a modern equivalent bridge, the current replacement value of the bridge inventory considering accumulated depreciation would be approximately \$58 billion.

A similar age-based approach was used to estimate the remaining service life of pavement assets. Caltrans SHS includes 37,355 lane miles of AC pavement, with replacement cost of \$1.002 million per lane mile, and 12,932 lane miles of JPCP and CRCP pavement, with replacement cost of \$2.6 million per lane mile, as described in the pavement treatment models Appendix B. The approximate service life of AC and



concrete surfaces was estimated to be 20 and 40 years, respectively [22]. The total replacement cost of the AC and concrete inventory with modern equivalent pavement assets is approximately \$37.4 billion and \$33.6 billion, respectively (total \$71 billion). Estimating the current age of pavement surfaces can be derived from the condition (in absence of the last resurface or construction year in the data set). The current distribution of pavement condition, as described in Appendix B, was found to be: 45% good, 53% fair, and 2% poor for AC pavement; 36% good, 61% fair, and 4% poor for JPCP pavement; and 52% good, 45% fair, and 3% poor for CRCP pavement. Considering the average remaining life based on condition state to be 85%, 70%, and 20% for pavement in good, fair, and poor condition, respectively, the average remaining service life can be calculated as shown in Table 5 below. Therefore, the current replacement value of the SHS pavement assets under consideration can be estimated to be \$53 billion. Therefore, the portfolio total replacement value comes to \$111 billion, and the total average annual lifecycle cost is \$7.3 billion.

Asset Class	Avg Service Life	Avg Age	Avg Rem. Life %	Total Qty	Unit Cost	As New Value	Replacemen t Value
Bridges	60	37.5	38%	244 Million sq. ft	\$635/sq. ft	\$155 billion	\$58.8 billion
HMA	20	4.5	76%	37,356 Lane Miles	\$1.002 M/ Lane Mile	\$37.4 billion	\$28.4 billion
JPCP	40	10.4	74%	12,115 Lane Miles	\$2.6 M/ Lane Mile	\$31.5 billion	\$23.3 billion
CRCP	40	9.5	76%	817 Lane Miles	\$2.6 M/ Lane Mile	\$2.1 billion	\$1.6 billion

Table 5. Total Replacement Value calculation for SHS Bridges and Pavements

### 7.3.1.3 Calculation of Relative Asset Class Weights

Once the two weighting factors are calculated for each asset class, relative asset class weights can be calculated using Equation 4.

$$W_{j} = \frac{AALC_{j}}{\sum_{i=0}^{N} AALC_{i}} * W_{AALC} + \frac{Replacement \, Value_{j}}{\sum_{i=0}^{N} Relacement \, Value_{i}} * W_{Replacement \, Value}$$
 Equation 4



where,

 $W_j$  = Relative weight of asset class j

N = Number of asset classes considered in the analysis

 $AALC_j$  and  $Replacment Value_j$  are the average annual lifecycle cost and replacement value of asset class j

 $W_{AALC}$  and  $W_{Replacement Value}$  are optional weightings that could be assigned for each of the two factors considered to estimate asset class relative weightings. respectively.

 $W_{AALC}$  and  $W_{Replacement Value}$  are optional user-defined weightings for each of the parameters considered. Assuming equal weighting (50%) for the AALC and Replacement Value parameters, the relative weight for SHS bridge and pavement asset classes can be calculated as follows:

$$W_{Bridges} = \frac{58}{111} * 0.5 + \frac{6.1}{7.3} * 0.5 = 0.67$$
$$W_{Pavement} = \frac{53}{111} * 0.5 + \frac{1.2}{7.3} * 0.5 = 0.32$$

However, we could choose to assign weightings for the parameters if they have different impact on the relative importance of asset classes on the overall asset portfolio performance. For example, if we assume 70% and 30% relative weighting for the AALC and Replacement Value parameters, the relative weight for SHS bridge and pavement asset classes will be calculated to be 0.62 and 0.38, respectively. Assigning relative weights to asset class factors may be more important when considering a larger set of asset classes, with significantly different impact on the overall portfolio performance.

#### 7.3.2 Cross-Asset Scenarios Trade-off Analysis

In our analysis, we used a normalized performance measure of the asset portfolio that can be rolled-up from the performance measures of individual assets, based on the weightings assumed for each asset type. For example, bridges and pavements used different condition rating scheme that ranged between 0 (fail) and 55 (new) for bridges, and between 0 (fail) and 100 (new) for pavements. A portfolio performance measure has been calculated by linearly scaling the condition index in each asset class to a common normalized portfolio performance measure (e.g., on a scale between 0 and 10), considering the relative weightings assumed for each asset class.

The scaled asset class condition index (ACI) can be calculated using Equation 5:

 $ACI_{Scaled} = Portfolio\_CI_{Failed Index} + (ACI - ACI_{Failed Index}) *$   $Portfolio\_CI_{New Index} - Portfolio\_CI_{Failed Index}$ 

ACI<sub>New Index</sub>- ACI<sub>Failed Index</sub>

Equation 5

where,

Portfolio\_CI<sub>Failed Index</sub> = Assumed "fail" portfolio index (i.e., when all assets are in fail condition)



Portfolio\_CI<sub>New Index</sub>

= Assumed "new" portfolio index (i.e., when all assets are in new condition)

ACI<sub>Failed Index</sub> = Assumed "fail" condition index for the asset class

ACI<sub>New Index</sub> = Assumed "new" condition index for the asset class

Considering an example of a bridge with a condition index BCI (S1 value) of 40, and a defined portfolio scale between 0 (fail) and 100 (new), its scaled condition index can be calculated as follows:

Bridge 
$$CI_{scaled} = 0 + (40 - 0) * \frac{100 - 0}{55 - 0} = 72.7$$

After calculating the scaled condition index for each asset class, the average normalized portfolio performance measure can then be calculated based on the scaled condition index of assets multiplied by the relative weight of the respective asset class, as shown in Equation 6.

Portfolio Performance Measure =  $\sum_{i=0}^{N} Asset Class Average Scaled CI_i * W_{Asset Class i}$  Equation 6

where,

N = Number of asset classes considered

Asset Class Average Scaled CI<sub>i</sub>

= Average annual scaled condition index for all assets in class i

 $W_{Asset \ Class \ i} = Relative \ weight \ of \ asset \ class \ i$ 

Based on the optimized scenarios developed for each asset class, the cross-asset trade-off analysis is performed by investigating "all" possible cross-asset scenario combinations to determine the overall portfolio performance in each year in the planning horizon. A typical combination of scenarios across different asset classes represents a possible distribution of a portfolio total budget among different asset classes.

For each combination of cross-asset scenarios, the average annual total portfolio investment (over all asset classes) along with the average annual portfolio performance measure are calculated. Figure 19 shows an example of cross-asset scenario combinations. It is obvious that the best trade-offs or optimal budget allocation would lie on the Pareto front (shown as red dots). Therefore, given any defined portfolio total budget, the optimal budget distribution can be determined, establishing the optimal investment levels (or scenario) for each asset class in the portfolio.





Figure 19: Evaluating all scenario combinations to optimize cross-asset budget allocation

#### 7.3.3 Finding Optimal Budget Allocation Among Asset Classes

This step involves finding the best distribution of the total portfolio budget among different asset classes to provide the maximum overall portfolio performance. Considering the planning scenarios defined for SHS bridge and pavement inventory, and estimating a relative class weight of 0.6 and 0.4 for bridges and pavement, respectively, Figure 20 shows the distribution of the average annual portfolio performance measure and the average annual investment level for each bridge and pavement scenario combination. Each dot in this chart represents a unique combination of two scenarios, one for bridges and one for pavement. The following bridges and pavements scenarios were considered in this analysis:

- Bridges: \$600 million, \$800 million, \$1 billion, \$800 million stepped to \$1.5 billion, \$1 billion stepped to \$2 billion, and SHOPP 10 years.
- Pavements: \$600 million, \$800 million, \$1 billion, SHOPP 10 years, SHOPP 4 years.

For example, using an assumed total portfolio annual investment budget of \$2.2 billion, the optimal scenario combination (or budget splitting) can be determined (shown in red). The optimal scenario combination was found to be \$1 Billion for bridges, and the SHOPP 10-year scenario for pavement, which resulted in an average annual portfolio performance index of 72.4. It can be noticed that four other scenario combinations with approximately the same average annual investment of \$2 billion, however they produce a lower overall portfolio performance. One of these combinations (shown on the bottom right table) is \$800 million- \$1.5 billion bridge scenario and the pavement SHOPP 10-



year pavement scenario, which collectively produced a portfolio average annual performance of 72.29.



Figure 20: Example for optimizing budget allocation across Caltrans bridge and pavement asset classes given an average portfolio annual budget of \$2.2 billion (optimal allocation shown in red)

# 8 Bundling Analysis

Cross-asset treatment types and timing identified from previous scenario optimization and needs analysis have been optimized considering trade-offs of performance and cost of individual asset classes. However, many of these individual treatments would have spatial and/or temporal relationships that would allow for improving efficiencies by bundling these treatments into common projects. Bundling these treatments into practical projects is an important step for determining and scoping project candidates. A number of benefits can be realized due to bunding, including:

- 1. Reducing work zone cost and risk, public disruption, agency and user costs;
- 2. Improving projects efficiency and coordination;
- 3. Allowing cost sharing across programs or organizations (e.g., local agencies); and
- 4. Achieving a positive impact on the public and environment.



Criteria for bundling of treatments typically include proximity and timing of individual treatments. Treatments on smaller or less expensive assets, such as guardrails and signs, can be bundled with adjacent larger projects (e.g., bridge or pavement rehabs). Multiple treatments on the same asset or on a set of assets in close proximity are often programmed into the same project to increase efficiencies by reducing mobilization and traffic management costs, public impact, and risks. Given the overhead costs, project scopes are required to be of practical size to be justified and programmed.

In this project, we implemented an innovative density-based spatial clustering algorithm to bundle treatments spatially and temporally. Bundling is based on measuring the spatial proximity of individual treatments, as well as the difference between the proposed years of these treatments. Bundles typically include treatments on multiple classes; however, they may also include treatments on different assets in the same asset class (e.g., deck repairs or overlay on adjacent bridges). Figure 21 shows an example of bundling parameters for bridge and pavement treatments identified under the state-wide SHOPP 10-year scenarios. Bundles were created to include treatments within 2-mile radius, that are recommended within the 10-year planning horizon (2021-2030). Bundling criteria may also specify specific asset groups or specific treatment types. Figure 22 shows an example map including bundles and treatments.

Create bundle layer								×
Bundle source Scenarios	•							
Start year 2021	Final year 2030	•	Distance threshold 2		Units Miles		Project     5	ts per cluster 🛛 🔻
Select asset class BRIDGES	•	Select scenari SHOPP_10	° )Yrs_2020 ▼	Select treatme Selected: 6	<sup>ents</sup> 5 of 7	•	Select groups Selected: All	• 🕀
Select asset class Highway		Select scenari Pavement	° SHOPP_10Yrs_2020▼	Select treatme Selected: 1	ents 11 of 12		Select groups Selected: All	- D
Sequence by year		Align 1	o program				<b>#* *:</b>	Re-build bundles
Cluster layer name SHOPP-10Yr-Bundles							Marker size	•
Show label							Canad	Crosta
							Cancel	GCreate

Figure 21: Example of cross-asset project bundles based on spatial and temporal constraints



Attributes of individual treatments within a bundle can be adjusted from the original optimization-based recommendation to fit practical project delivery requirements. Work types, scope, timing, and cost of individual treatments can be modified before grouping them into one project. For example, the total cost can be adjusted to reflect expected savings. Also, individual treatment work type, scope, or timing can be aligned. Project timing may require adjustment for funding availability, resource constraints, or need to coordinate with other projects (e.g., local agencies).



Figure 22: Example of cross-asset treatment bundles for bridge and pavement treatments recommended by the SHOPP 10-year planning scenario.

Identified treatment bundles can then be added to a pool of candidates, to be further evaluated for prioritization and possible nomination into programs. Bundled treatments can further be (re)evaluated using scenario analysis to assess the impact on performance measures and costs, taking into consideration any changes which may



have been introduced to the original treatment type, timing, or costs (e.g., treatment deferrals). Similar to the process used for needs evaluation, the list of bundled treatments is "forced" into the scenario, which will compute funding levels and performance implications of the candidates.

# 9 Programming and Budgeting Process

Effective programming and budgeting decisions require the integration of project-level analysis and system-level cross-asset analysis. The proposed methodology achieves this integration through the use of asset class-level predictive performance models, system-level cross-asset scenario trade-off analysis, and bundling analysis to guide the identification of optimal project candidates, which are subsequently evaluated and prioritized using MODA value functions.

Multiple programs and funding sources can be defined, tracked, and managed. Programs are typically defined to focus on specific performance objectives, asset classes, work types, or to meet certain financial rules and constraints. Funding sources would include a variety of federal, state, or other funding to be allocated to different programs. Projects nominated into any program are analyzed and prioritized based on MODA program-level criteria and performance objectives. As projects progress and funds are committed and consumed, the status of projects and funds are continuously tracked and updated to allow for continuous evaluation or adjustments to the programs, and to enable timely decisions to ensure efficient project delivery and accurate reporting.

Figure 23 shows a proposed 8-step process for program development. The main steps of this process include:

1. Define program goals, objectives, and performance targets.

Set up the program timeframe, objectives hierarchy, and determine appropriate MODA value functions and relative weightings. Define a set of feasible performance targets based on previous trade-off analyses as well as organizational objectives.

2. Define program funding sources and rules.

Identify eligible funding sources, and determine or forecast initial funding levels and annual allocations to each program.

#### 3. Assemble initial set of project candidates.

Assemble a list of annual project candidates based on analyses of optimized treatments and treatment bundles identified from previous scenarios, cross-asset trade-off analysis, needs analysis, and bundling analysis. Project candidates are identified with consideration of program performance objectives and funding rules.

#### 4. Calculate project benefits.



Based on program-specific performance objectives and project-level MODA value functions, gather project parameters and estimate project benefits.

#### 5. Perform project-level trade-off analysis.

Using project-level MODA, evaluate trade-offs of different project candidates, and select highest-value candidates in each program year.

#### 6. Evaluate project candidates.

Project candidates are evaluated against defined performance targets and funding limits using what-if scenario analysis. Analysis results would validate that performance accomplishments of the project portfolio meet the targets, and that estimated projects' costs are within allowed funding constraints.

#### 7. Finalize and nominate list of project candidates.

The project candidate list is revised by adding or removing projects or modifying projects scope, expected performance outcomes, and/or costs until performance targets are met within funding limits. Modifications of the project portfolio may require re-evaluation of benefits using MODA. Finalized project portfolio can then be nominated for program.

#### 8. Manage programs and budgets, and make adjustments as needed.

Projects and budgets are tracked and managed based on a pre-defined workflow throughout their delivery lifecycle, from nomination and approval through closure and acceptance. Projects' progress is continuously tracked, updated, and evaluated to ensure attainment of expected performance outcomes within available funding constraints. Funding sources and allocations to different programs and projects are also tracked and managed. Scenario analysis is used to perform periodic program evaluation, and guide decisions on any required program or budget adjustments.

The following sections describe some of the steps in more details.



1. Define Program Goals, Objectives & Performance Targets	2. Define Program Funding Sources	3. Assemble Initial Project Candidates	4. Calculate Projects Benefits	5. Projects Trade-off Analysis	6. Evaluate Identified Project Candidates	7. Finalize List of Project Candidates	8. Manage Programs & Budgets
What value functions to use for monetization of project benefits? What feasible performance targets to use?	Which funding sources to use and at what levels?	From optimized treatments & needs, which (bundled) treatments to nominate and when?	Based on the MODA value functions, what are the benefits of each project candidate?	Using benefit- cost analysis, which project candidates deliver maximum value?	Use scenarios to determine if project candidates achieve performance targets within funding limits?	Revise and re- evaluate project candidates as needed. Prepare nomination list and budgets for program approval.	Manage projects & re-evaluate performance & budgets periodically. Adjust as needed, following defined workflows.

Figure 23: Key Steps for Program Development in the Proposed Methodology



## 9.1 Setting Performance Targets and Assembling Project Candidates

Performance objectives, along with defined targets, are used to justify program investments, and guide project selections and budgeting decisions. Several categories of performance objectives are typically used [23]. Performance objectives can be defined for the entire system or for a sub-system (e.g., on a district level or for a specific functional class).

Program performance measures include assets specific performance accomplishments such as asset preservation and condition improvements, enhanced capacity, or mitigating known risks and assets vulnerabilities. Asset-level performance measures are calculated for each individual asset, and then aggregated to system-level using appropriate asset weightings. Program performance objectives often span one or more organizational goals, that may not be directly associated with any specific assets (e.g., mobility, safety, sustainability). Some system-level measures are typically related to project benefits, which are used in MODA models. Other objectives may represent certain aspects of organizational performance such as levels of investment that promote transportation equity, environmental sustainability, and regional coordination.

Performance targets are important to monitor, benchmark, and report on performance accomplishments, and to ensure that the program is on track to meet performance targets. However, sometimes, performance targets are defined based on historical or desired performance, which may not be feasible or realistic to attain for the asset inventory within available funding. Without robust prediction of assets lifecycle performance, setting feasible targets may be a challenge, that may result in frequent changes of the targets or inability to attain the targets.

What-if scenario analysis is an effective tool for setting and evaluating performance targets. Scenario analysis can help identify feasible performance targets under various funding constraints, investigate the impact of alternative investment decisions on these targets, and to determine funding requirements that can realistically achieve and sustain the targets. Figure 24 shows an example of using a scenario to evaluate %Good, %Fair, %Poor performance outcomes and compare against performance targets over a 20-year planning horizon.

The set of optimized asset-specific treatments and treatment bundles identified from what-if scenarios, cross-asset trade-off analysis, needs analysis, and bundling analysis are assembled into project candidates. Project candidates should satisfy both program objectives and funding constraints. However, types and timing of these treatments may not be optimal or practical for project delivery, and therefore additional criteria may need to be considered when project candidates are assembled.







Figure 24: An example of using scenario analysis to compare %Good, %Fair, %Poor performance outcomes against set targets based on a 20-year plan



A project candidate includes one or more treatments, which may span one or more assets and/or asset classes. Candidates may also be added to address specific requirements or risks not addressed by scenarios or identified needs (e.g., for regulatory compliance or coordination). Furthermore, candidates may be added from external management systems (e.g., pavement or bridge management systems).

Each project candidate defines a set of basic attributes such as Project ID, Project Number, location, description, planned year, workflow status, and annual funds allocated from various sources. In addition, a project candidate includes all information pertaining to children work tasks (or treatments) such as work types, estimated costs, list of asset IDs and their associated information, status, allocated funds from different sources, funding commitment years, performance objectives, and expected performance accomplishments, among other attributes. Project costs and other attributes are rolledup from the costs and attributes of individual treatments.

What-if scenario analysis can also be used to evaluate portfolios of projects or project candidates to accurately determine expected performance outcomes, and provide guidance on adjusting performance targets, or modifying programs and funding allocations to ensure alignment with asset class-specific performance targets and funding constraints.

## 9.2 MODA-Based Project-Level Trade-off Analysis

Multi-objective decision analysis (MODA) is a popular tool to support project prioritization and selection by assessing the relative benefits of alternative projects. Project benefits are estimated based on a set of performance objectives and associated utility functions. Projects are scored and ranked according to their relative value-to-cost ratios. The MODA approach has the advantage of considering a wide range of asset-generic organizational performance measures (health, safety, efficiency, sustainability, etc.), promoting consistency and transparency in project evaluations, and establishing a quantitative and repeatable process for assessing project benefits.

#### 9.2.1 Caltrans Multi-Objective Decision Analysis (MODA) Model

Caltrans' MODA model prioritizes project candidates based on monetization of project benefits with respect to a set of organizational performance objectives. Figure 25 shows Caltrans' objectives hierarchy based on 2015-2020 Strategic Management Plan, which was used to define MODA objective functions in this study.

In 2016, the SHOPP Asset Management Pilot Program further improved the initial MODA model objectives and value functions, and applied the model to prioritize a set of 37 nominated projects [24]. An Excel-based prototype was also developed to facilitate the use of the model.









The MODA model parameters and results from the 2016 project prioritization have been subsequently evaluated by a panel of experts [24], who provided a number of recommendations for possible improvements. Two main recommendations were given:

- Need for further work on how various goals should be weighted and evaluated in the value functions.
- Explore the implementation of an optimization approach to complement the MODA model.

The expert review performed a sensitivity analysis (using the 37 test projects) to assess the impact of changes in input variables (e.g., annual average daily traffic, average annual daily truck traffic, project length, unit costs) on calculated project scores. The sensitivity analysis indicated that significant changes in key input variables have often resulted in small changes in project scores. The review also indicated that some of the value functions may require "a complete overhaul," and suggested the use of a monetization approach to quantify all project benefits. This finding highlights the difficulty of developing "ideal" value functions to quantify benefits and prioritize statewide capital projects, given the wide range of variations these projects typically have, especially when diverse asset classes are considered. More importantly, this finding also underscores the limitations of relying solely on project-level MODA models for project selections, and the need to utilize true optimization models, similar to the one used in this project.

The expert review investigated the application of two potential optimization approaches to extend the current MODA model, namely a single-objective knapsack optimization (maximize total cumulative project benefit subject to the given budget) and a multi-objective goal programming (maximize benefits for each goal subject to defined goal targets and budget). The two approaches were applied to the same projects data set. However, the two approaches did not yield a significant improvement on the current MODA prioritization results. The study also recommended further work to assist in determining weights and targets of the five different goals, emphasizing the need to develop a multi-objective optimization approach.

Similar to our cross-asset budget allocation method for normalizing cross-asset performance measure (discussed in Section 7.3.1), MODA models also rely on normalizing performance measures for different asset types by defining a set of common utility functions that are applicable across asset types. However, while the MODA approach provides cross-asset project-level trade-off analysis, it does not provide guidance on system-level budget allocation across multiple asset classes.

As a project-level trade-off analysis tool, MODA models are not integrated with predictive performance and risk models and planning scenarios, and therefore, does not allow for analyzing trade-offs and comparing long-term impact of project portfolios on system-level performance measures or to guide decisions among different asset classes or sub-systems. For example, while showing and comparing project-level performance accomplishments, MODA models cannot show the long-term impact of the project



portfolio on system-level performance measures (e.g., %Good, %Poor) over the program years. MODA models do not account for project timing and typically evaluate projects value functions at the current planning year, and therefore, do not capture changes in values in subsequent years. Project values that may change due to time-dependent factors, e.g., asset condition, are not captured in the project analysis.

To overcome this limitation, our proposed methodology integrates MODA models with asset and system-level lifecycle modeling, multi-objective cross-asset optimization, and trade-off analysis to optimize the development of project candidates. Under the proposed methodology, project candidates that are evaluated by the MODA model have already been optimized based on asset class-level and system-level trade-off analysis.

#### 9.2.2 Evaluation of Project Candidates using Caltrans MODA Model

Project candidates assembled from optimized scenarios, system-level cross-asset tradeoff analysis, and bundling analysis are further evaluated against project-level MODA performance measures to further analyze trade-offs between projects costs and benefits, in terms of organizational performance objectives.

Calculation of MODA value functions for each candidate project requires project and site-specific data attributes that are typically gathered during the project development stage, such as safety statistics, economic benefits, emissions, travel time, health and sustainability benefits. The benefits with respect to each of the defined objectives are evaluated using defined value functions. The total benefits are then calculated and used to calculate a benefit/cost (B/C) ratio score for each project. Projects with the highest B/C ratio are then selected. On each program year, project selection goes from top to bottom until the total annual budget is used. Selected projects are then nominated for programming.

An example for evaluating MODA objectives for some project candidates, a subset of Caltrans MODA goals and objective functions have been defined. Figure 26 shows the definition of three MODA goals as well as the definition of the value functions to estimate system performance benefits, which include: annual freight corridor benefit, annual travel time benefit, and annual fuel savings. While some input variables may be based on readily available asset data (e.g., traffic and truck traffic volume data, VMT), other input variables include a set of statewide or regional constants, such as those provided in Cal B/C including average cost per crash, average fuel cost, and average emissions costs by region. To show the example analysis, assumptions were made for other input variables, which are typically assessed or gathered based on specific site or project parameters.



MODA Analysis MODA Goals		
System Performance and Economy System Performance and Economy		+ Add objective
Dbjective Fields		Expression
Annual Freight Corridor Benefit FreightIm	actProgramFactor,FuelSavings_Autos,Fu	FreightImpactProgramFactor * FreightBenefitMult 🧪 🧵
Annual Travel Time Benefit DailyRedu	tionInDelayAndBufferTime,AverageCostP	DailyReductionInDelayAndBufferTime * AverageCos
Annual Fuel Savings FuelSavin	s_Autos,FuelSavings_Trucks,FuelCost_A	FuelSavings_Autos * FuelCost_Autos + FuelSaving
Update Annual Freight Corridor Benefit objective	X Update Annual Travel Time Benefit objective	Vpdate Annual Fuel Savings objective
Objective Annual Freight Corridor Benefit	Objective Annual Travel Time Benefit	Objective Annual Fuel Savings
Description	Description	Description
Add field	Add field	Add field
FreightImpactProgramFactor 🕄 FuelSavings_Autos 😒	DailyReductionInDelayAndBufferTime 🛞 AverageC	CostPerHour CostPerHour FuelSavings_Autos CostPerHour FuelSavings_Autos CostPerHour Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Cost_Autos Co
FuelEconomy_Autos S FuelEconomy_Autos FuelEconomy_Autos S FuelEconomy_Trucks S	Expression DailyReductionInDelayAndBufferTime * AverageCostP	PerHour * 365
AverageCostPerHour (E)         FreightBenefitMultiplier (E)		FuelSavings_Autos * FuelCost_Autos + FuelSavings_Trucks * FuelCost_Trucks
Expression FreightimpactProgramFactor * FreightBenefitMultiplier * ( (FuelSavings Autos * FuelEconomy Autos + FuelSavings Trucks *		<i>ll</i> .
FuelEconomy_Trucks) + (DailyReductionInDelayAndBufferTime * AverageCostPerHour * 365) )	Expression Library	Cancel Update
	di.	E Expression Library - Cancel Update
Expression Library - Cancel Up	ate	

Figure 26: Example of Setting up a Subset of Caltrans MODA Goals and Objective Functions

Figure 27 shows an example for defining project-specific data to estimate value functions under a specific MODA goal. For example, calculation of the annual vehicle safety savings is based on expected annual crash cost savings, using the following formula:

Annual Vehicle User Safety Savings = 365 \* VMT \* CC \* Reduction in Crash Rate

VMT is calculated based on project length (in miles) and AADT, and CC is the average cost per crash (\$185,600 based on Cal-B/C). Reduction in crash rate is site-specific and needs to be calculated from existing crash rate (by type of crash) at the project site and expected reduction as a result of the project. In this analysis, this value is assumed to be 0.18 crash per million VMT.

Another example is the calculation of annual fuel savings, which is based on reduced fuel consumption, average fuel economy, and fuel cost for autos and trucks, using the following formula.

Annual Fuel Savings (FS) = FS<sub>A</sub> \* C<sub>AF</sub> + FS<sub>T</sub> \* C<sub>TF</sub>



 $FS_{A} \text{ (gallon/year)} = EFR_{A} * 365 * \frac{VMT * \frac{AADT - AADTT}{AADT}}{MPG_{A}}$   $FS_{T} \text{ (gallon/year)} = EFR_{T} * 365 * \frac{VMT * \frac{AADTT}{AADT}}{MPG_{T}}$ 

 $C_{AF}$  is fuel cost for autos (\$2.65/gallon based on Cal-B/C),  $C_{TF}$  is fuel cost for trucks (\$2.40/gallon based on Cal-B/C), MPG<sub>A</sub> is average fuel economy for autos (26.04 miles/gallon based on Cal-B/C), and MPG<sub>T</sub> is average fuel economy for trucks (12.18 miles/gallon based on Cal-B/C). EFR<sub>T</sub> and EFR<sub>T</sub> are effective fuel reduction for autos and trucks. In this analysis, the effective fuel reduction is assumed to be 1% for both autos and trucks.

2001			Project ID		
ystem Performance and	Economy	•	PID42E58	37F4	
Annual Freight Co	rridor Benefit	//= ··· · · · · ·			Result 537758.50
reigntimpactProgramFactor uelSavings_Trucks * FuelEco	* FreightBenefitMultiplier * onomy_Trucks) + (DailyRedu	( (FuelSavings_Aut ictionInDelayAndBu	os * FuelEcon IfferTime * Av	omy_Autos + erageCostPerHour * 365) (	)
FreightImpactProgramFactor	FuelSavings_Autos 1010	FuelEconomy 2.65	Autos	FuelSavings_Trucks 125	FuelEconomy_Trucks 2.4
DailyReductionInDelayAndB 315	AverageCostPerHour 23.36	FreightBenefit 0.2	Multiplier		
Annual Fuel Savin	gs				Result 2976.50
Annual Fuel Saving	<b>gs</b> t_Autos + FuelSavings_Trucl	ks * FuelCost_Truc	ks		Result 2976.50
Annual Fuel Saving FuelSavings_Autos * FuelCos FuelSavings_Autos 1010	<b>gs</b> t_Autos + FuelSavings_Truck FuelSavings_Trucks 125	ks * FuelCost_Truc FuelCost_Auto 2.65	<b>ks</b> os	FuelCost_Trucks 2.4	Result 2976.50
Annual Fuel Saving TuelSavings_Autos * FuelCos FuelSavings_Autos 1010	gs t_Autos + FuelSavings_Truck FuelSavings_Trucks 125	ks * FuelCost_Truc FuelCost_Auto 2.65	ks	FuelCost_Trucks 2.4	Result 2976.50
Annual Fuel Saving iuelSavings_Autos * FuelCos FuelSavings_Autos 1010 Annual Travel Tim	gs t_Autos + FuelSavings_Truck FuelSavings_Trucks 125 e Benefit	ks * FuelCost_Truc FuelCost_Auto 2.65	ks	FuelCost_Trucks 2.4	Result 2976.50 Result 2685816.00
Annual Fuel Saving FuelSavings_Autos * FuelCos FuelSavings_Autos 1010 Annual Travel Tim DailyReductionInDelayAndBu	gs t_Autos + FuelSavings_Trucks 125 e Benefit fferTime * AverageCostPerH	ks * FuelCost_Truc FuelCost_Auto 2.65	ks <sup>28</sup>	FuelCost_Trucks 2.4	Result 2976.50 Result 2685816.00

Figure 27: Example input of project parameters for estimating MODA value functions

After defining the project input variables for each value functions, the total benefits of each project are calculated. The MODA project rankings are then calculated based on the benefit-cost ratio. Highest ranking projects within defined funding constraints are then selected and nominated for programming. Figure 28 shows an example of benefits calculations and ranking of project candidates, to be used for nominating projects to programs. Project evaluations and ranking may be modified as a result of adjusting project parameters (e.g., scope, timing, etc.). Furthermore, identified or nominated



candidates may be evaluated using scenario analysis to verify that system-level performance objectives will be still met over the duration of the program.

≡ 🐴	Caltrans							(?) Help	📒 F	eedback	idsplanner 🗸	Ξ
	nalysis 📄 MODA Goa	ls										
Re-calculate	MODA Ranking 🗙 Mark 8 unsele	ected								Update sel	ected program proje	cts ┥
Drag here t	o set row groups											
Project ID	Work Type	Project Status	Year	Estimated Cost	Safety $\downarrow$	Air Quality and He	System Perform	Benefi	Ranking	Selected	Annua	l Non-
PID42E587F4	DeckRepair, Thin_Overlay	PRE-PLANNING	2022	\$3,169,680	4001836.23	113482155	3226551	38.08	1	~	374	<b>^</b> 0
PID0F581149	DeckRepair,ConcreteOverla	PRE-PLANNING	2021	\$70,173,493	1507098.91	181.93	3026507.64	0.06	4	~	345	lumn
PID0E30CDA0	DeckRepair, Widening, Pave	POST-PLANNING	2021	\$38,786,794	1464858.25	345.76	2133298.49	0.09	2	~	88	u.
PID0B60F454	DeckReplacement	PROPOSED	2023	\$15,986,157	486402.88	153.64	645622.92	0.07	3	~	24	
PID049EEF37	DeckRepair	PROPOSED	2021	\$46,771,127	381110.38	185.22	535579.26	0.02	8	~	26	
PID04F5EF36	DeckRepair	IN-PROGRESS	2022	\$18,158,062	360802.51	83.23	182748.66	0.03	5	~	21	
PID02C70091	DeckRepair	PROPOSED	2021	\$8,595,144	159753.35	256.03	35567.7	0.02	7	~	13	
PID02E0F5B4	DeckRepair	PROGRAMMED	2023	\$6,883,540	148191.51	215.2	39228.18	0.03	6	~	11	
PIDCBC42F8A	DeckRepair	PROPOSED	2022	\$13,562,289	0	0	0	0.00	38	-	0	
PIDC5181162	DeckRepair	NOMINATED	2022	\$10,271,734	0	0	0	0.00	26		0	
PIDB86A72F3	DeckRepair	IN-PROGRESS	2021	\$4,444,480	0	0	0	0.00	35	-	0	
PIDA8CBD926	Concrete_Overlay	IN-PROGRESS	2021	\$42,784,226	0	0	0	0.00	30	-	0	
PIDA46620C0	DeckReplacement	PROGRAMMED	2021	\$23,387,854	0	0	0	0.00	21	-	0	
PID9F63CEAF	DeckRepair	PROPOSED	2023	\$3,926,064	0	0	0	0.00	9	-	0	~
•									1 to -	40 of 40	< Page 1 of 1	3 51
Budget profile											Update budget	t profile
1 250M												_
												=
1.000M												
750M												
(B)												
0 C												
500M												
1000000												
250M												
0		-02 <sup>1</sup>			10	-022			.023			
		23.				25° Year			25			
							2					

Figure 28: Ranking project candidates based on B/C ratio and nominating highest value projects for programming. Highest-Value Candidate Projects for Program Nomination

We initially used the Cross-Asset Resource Allocation Tool (CARAT) web service [25] to perform MODA analysis. The CARAT REST service was integrated with Asset Optimizer to automate data exchange and MODA ranking. Developed as part of the NCHRP 08-91 project, the CARAT tool employs Data Envelopment Analysis (DEA) to calculate a relative efficiency for each project, which is subsequently used to rank projects based on benefit values. For testing purposes, we used the CARAT tool to analyze a small set of projects (Figure 29).



CARAT	Edit								Mhall	awy@ids.consulti
e carat 🗸	Project ID Description	Cost	Safety	Air Quality and Health	Stewardship and Efficiency	System Performance and Economy	Sustainability and Livability	Relative Efficiency	Selected	Add
Load	1031 15716-Safety - Collision Reduction	3,360,000	0.04538	0	0	0.00033	0	1.00		1
Edit	1037 17782-Roadside	13,701,000	0.001326	Û	0	Ó	0.06702	1.00		1 🗊
Visualize	1025 20299-Mobility	14,383,000	0.023306	0.018057	0	0.093855	0	1.00		1
About 🗸	1112 16832-Bridge Seismic	8,600,000	0.000008	0	0.326298	0	0	1.00		1
Carat	1042 17370-Safety - SI	75,314,000	1	0	0	0.001902	0 000270	0.98		0 1
Carat Services	1016 16167-Mobility	38,547,000	0.020278	0.017809	0	0.096444	0.000370	0.40		0 1
Contact Us	1028 17162-Mobility	23,673,000	0.008895	0.008634	0	0.057314	0	0.37		0 🔟
	1044 16381-Mobility	7,907,000	0.032759	0.000476	0	0.003604	0.000025	0.36		1
	1021 16210-Sustainability/Climate Change	e 15,020,000	0.000619	0	0	0	0.022061	0.30		0 🔟
	1026 16712-Sustainability/Climate Change	e 3,227,000	0.000003	0	0	0	0.004671	0.30		1
	1027 16143-Mobility	25,102,000	0.000104	0.000141	0	0.047511	0	0.29		0 1
	1056 16830-Bridge Seismic 17714-Pavement II Capital Preventiv	10,438,000	0.00002	U	0.104644	U	U	0.26		1 1
	1004 Maintenance	6,755,000	0.016051	0.000204	0.00122	0.000433	0.000649	0.22		1 🔟
	1059 20896-Drainage	1,562,000	0.000182	0	0	0	0.001523	0.21		1 1
	13679-Pavement II Capital Preventiv	0,324,000	0	0	0.043300	0	0	0.13		
	1057 Maintenance	16,099,000	0.002097	0.002539	0.004881	0.014525	0.003331	0.19		0
	1005 13303-Bridge Seismic	12,654,000	0.000974	0	0.086691	0	0.000001	0.19		0 1
	1039 19399-bnoge	23.390.000	0.000247	0	0.14724	0 000033	0 000001	0.17		0 1
Project ID	Description					Efficienc	v C	ost		
1003	16628-Pavemen	t-II-Capital-Prev	entive-Mai	ntenance		0.12	2,	704,000		
1004	17714-Pavemen	t-II-Capital-Prev	entive-Mai	ntenance		0.22	6,	755,000		
1007	13838-Roadside					0.13	2,	590,000		
1025	20299-Mobility					1.00	14	4,383,000		
1026	16712-Sustainal	bility-Climate-Ch	ange			0.30	3,	227,000		
1031	15716-Safety-Co	ollision-Reductio	n			1.00	3,	360,000		
1037	17782-Roadside					1.00	13	3,701,000		
1041	16240-Mobility					0.10	4,	484,000		
1044	16381-Mobility					0.36	7,	907,000		
1056	16830-Bridge-Se	eismic				0.26	10	0,438,000		
1059	20896-Drainage					0.21	1,	562,000		
1090	13636-Bridge-Se	eismic				0.19	6,	924,000		
1106	16315-Advance-	Mitigation				0.46	3			
1112	16832-Bridge-Se	eismic				1.00	8,	600,000		
	18351 Other					0.09	2	165,000		

Figure 29: Example use of the CARAT Service for a Small Set of Projects

Experiments with the CARAT service showed some scalability limitations. The tool performed well when the number of projects was in the range of 300. However, we experienced some limitations when a larger number of candidate projects (e.g., in a 10-year program) were evaluated. To overcome this limitation, we decided to implement MODA calculations and ranking using benefit-cost ratio in the Asset Optimizer tool, instead of using CARAT service.



## 9.3 Managing and Tracking of Programs and Budgets

Funding for programs and projects are typically allocated from multiple sources, over the program years, within certain limits and according to specific rules. Prior to allocating funds, funding sources should be set up with their available annual limits. Figure 30 shows an example of setting up a funding source, and defining program annual funding allocation.

As multiple funds can be allocated to multiple programs over different years, continuous tracking and management of funds as they are allocated, deallocated, rolled-over, or consumed over programs' lifecycle can become a complex task. Fund consumption are typically tracked through recording of actual project costs, which is typically achieved using a project management system. At any point in time, allocated, remaining, and consumed funds should be balanced across all programs and funding sources. Figure 31 shows an example of a program summary, and annual funding allocations from multiple sources to different projects.

Different programs may require different workflow processes to streamline program execution and determine the requirements for developing and advancing projects through their lifecycle. Advancement of projects status across different stages from nomination, to pre-planning, planning, post-planning, programming, and delivery stages typically involves a series of submission and approval processes. Each of these processes would typically have a set of prerequisites and documentation, and trigger specific actions, notifications, or changes in project status. Figure 32 shows an example of a generic program workflow.

Throughout the program lifecycle, it is critical to monitor and track projects delivery to ensure alignment with performance and budget expectation. Deviations from initial performance and funding forecasts are common occurrences in projects, and therefore the need for program adjustments and updates often arises due to new or unforeseen aspects of actual expenditures, asset needs, funding constraints, or compliance requirements. Figure 33 shows an example program management interface showing the project portfolio and details of a selected project, which include the list of tasks (treatments), allocated funds, and workflow status.

Program changes may trigger the need to re-evaluate the project portfolio, which may result in adding, removing, or swapping projects to meet performance and funding constraints. Ideally, project updates should be automatically synchronized between the program management and project management systems to reflect project updates in real-time throughout the delivery lifecycle, which allows for timely decisions on any required adjustments as well as accurate reporting on program status. Figure 34 shows an example of a program status dashboard, showing fund allocation, cost estimates, and actual expenditures.





Figure 30: An example of setting up a funding source in the example program



													_
Add candida	ates or projects 5== Allocate program funds	🖧 Rollover funds 🦘 Re	fund funds										
	Date Range 2021 - 2030		Estimated (\$1,235,02)	<sup>Cost</sup> 0,316		Progr. \$736,	am Funds <b>790,000</b>			\$1	Actual Co	<sup>ost</sup> 2, <mark>365</mark>	
Funding Sourc	e Year Pro	gram Total	Allocated	Unallocated	Î.		Pro	gram Fundir	ng Profil	e			
Federal Fund	2021	\$90,000,000	\$25,750,000	\$64,250,000	^						He	old shift to p	an wh
state Fund	2021	\$10,000,000	\$3,000,000	\$7,000,000	125M								
Federal Fund	2022	\$100,000,000	\$13,700,000	\$86,300,000				1.00					
State Fund	2022	\$10,000,000	\$860,000	\$9,140,000	TUOM					-			
Federal Fund	2023	\$93,000,000	\$43,200,000	\$49,800,000	6 75M							_	
State Fund	2023	\$5,000,000	\$1,000,000	\$4,000,000	, in the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second se								
Federal Fund	2024	\$100,500,000	\$7,500,000	\$93,000,000	е ₩ 50М	_	11 de					L	
State Fund	2024	\$4,000,000	\$1,000,000	\$3,000,000									
Federal Fund	2025	\$96,000,000	\$11,700,000	\$84,300,000	25M								
ederal Fund	2026	\$90,500,000	\$4,500,000	\$86,000,000				- <b>1</b>					
Federal Fund	2027	\$75.000.000	50	575 000 000									
		a contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction	20	\$75,000,000	0				1.	1		0	
Federal Fund	2028	\$75,000,000	50 S0	\$75,000,000	0	2021 202	2 2023	2024 2025	2026	2027	2028	2029	\$
ederal Fund	2028	\$75,000,000 \$849,000,000	\$0 \$112,210,000	\$75,000,000	~	2021 202	2 2023	2024 2025	2026 Year	2027	2028	2029	>
ederal Fund Total	2028	\$75,000,000 \$849,000,000	\$0 \$0 \$112,210,000 1 to 14 of 14	\$75,000,000 \$75,000,000 \$736,790,000 \$736,790,000	*	2 <sup>521</sup> 2 <sup>52</sup> Allocat	ک <sub>ک</sub> وک <sup>ی</sup> ted to projects	2 <sup>02<sup>h</sup></sup> 2 <sup>02<sup>5</sup></sup> • Available for	20 <sup>26</sup> Year projects	2021	2028 Ilocated to	2 <sup>029</sup> program	2
ederal Fund otal	2028 Work Type	\$75,000,000 \$849,000,000 Funding Source	\$0 \$0 \$112,210,000 1 to 14 of 14 <b>2021</b>	\$75,000,000 \$75,000,000 \$736,790,000 \$736,790,000 \$736,790,000	2023	2 <sup>02<sup>1</sup></sup> 2 <sup>02</sup> Alloca 2024	ک <sub>ک</sub> وک <sup>ی</sup> ted to projects 2025	201 <sup>24</sup> 2025 • Available for 2026	ک <sup>وری</sup> Year projects 2027	2 <sup>021</sup> Total a	ک <sup>وی</sup> اllocated to 2029	202 <sup>9</sup> program 20	\$
Federal Fund Total Project ID PID0F581149	2028 Work Type DeckRepair, ConcreteOverlay, SealCoat	575,000,000 5849,000,000 Funding Source Federal Fund	\$0 \$112,210,000 1 to 14 of 14 \$650,000	\$75,000,000 \$756,790,000 \$736,790,000 \$736,790,000 \$736,790,000 \$2022 \$3,500,000	2023	20 <sup>21</sup> 20 <sup>22</sup> Allocat 2024 \$500,000	ک <sub>ک</sub> وک <sup>2</sup> ted to projects 2025 \$5,000,000	202 <sup>A</sup> 202 <sup>5</sup> • Available for 2026 \$500,000	202 <sup>6</sup> Year projects 2027 S0	20 <sup>21</sup> <ul> <li>Total a</li> <li>z</li> <li>\$0</li> </ul>	ک <sup>وری</sup> اlocated to 2029 50	2012 program 20 \$0	
Federal Fund Total Project ID PID0F581149 PID0F581149	2028 Work Type DeckRepair, ConcreteOverlay, SealCoat DeckRepair, ConcreteOverlay, SealCoat	575,000,000 S849,000,000 Funding Source Federal Fund State Fund	50 50 5112,210,000 1 to 14 of 14 2021 5650,000 50	S75,000,000 S7536,790,000 S736,790,000 S736,790,000 S33500,000 S500,000	2023 \$26,000,000 \$1,000,000	20 <sup>22</sup> 20 <sup>22</sup> Allocat 2024 \$500,000 \$1,000,000	<sup>2</sup> ک <sup>2</sup> ted to projects 2025 \$5,000,000 \$0	202 <sup>A</sup> 202 <sup>S</sup> Available for 2026 \$500,000 \$0	2026 Year projects 2027 \$0 \$0	20 <sup>21</sup> Total a 2 S0 S0	2028 Illocated to 2029 S0 S0	20 <sup>23</sup> program 20 50 50	5
Federal Fund Total Project ID PID0F581149 PID0F581149 PID0F581149	2028 Work Type DeckRepair, ConcreteOverlay, SealCoat DeckRepair, ConcreteOverlay, SealCoat DeckRepair, Thin_Overlay	\$75,000,000 \$849,000,000 Funding Source Federal Fund State Fund Federal Fund	50 50 5112,210,000 1 to 14 of 14 2021 5650,000 50 50	\$75,000,000 \$75,000,000 \$736,790,000 \$736,790,000 \$2022 \$3,500,000 \$500,000 \$200,000	2023 \$26,000,000 \$1,000,000 \$0	2024 2024 \$5500,000 \$1,000,000 \$0	2025 \$5,000,000 \$3,000,000	2024 2025 • Available for 2026 \$500,000 \$0 \$0 \$0	2025 Year <b>projects</b> 2027 S0 S0 S0	2021 Total a 2 \$0 \$0 \$0 \$0	<sup>ع</sup> تو <sub>2</sub> <b>ot bescoll</b> <b>ecos</b> 02 02 02	2023 program 20 50 50 50	3
Federal Fund Total Project ID PID0F581149 PID0F581149 PID0F581149 PID04582149	2028 Work Type DeckRepair, ConcreteOverlay, SealCoat DeckRepair, ConcreteOverlay, SealCoat DeckRepair, Thin_Overlay DeckRepair, Widening, PavementOverlay	\$75,000,000 \$849,000,000 Funding Source Federal Fund State Fund Federal Fund Federal Fund Federal Fund	50 50 5112,210,000 1 to 14 of 14 2021 5650,000 50 50 50 50 50	\$75,000,000 \$75,000,000 \$736,790,000 \$736,790,000 \$33,500,000 \$33,500,000 \$500,000 \$200,000 \$10,000,000	2023 \$26,000,000 \$1,000,000 \$0 \$5,000,000	2024 2024 \$500,000 \$1,000,000 \$0 \$6,500,000	ک مرک <sup>2</sup> <b>ted to projects</b> <b>2025</b> (55,000,000 50 (53,000,000 50	2024 2025 Available for 2026 \$500,000 \$0 \$0 \$4,000,000	2025 Year projects 2027 \$0 \$0 \$0 \$0 \$0 \$0	2021 Total a 2 S0 S0 S0 S0 S0	کری کری کری کری کری کری کری	20 <sup>23</sup> program 20 50 50 50 50	3
Federal Fund Total Project ID PID0F581149 PID0F581149 PID0F581149 PID02587F4 PID0230CDA0	2028 Vork Type DeckRepair,ConcreteOverlay,SealCoat DeckRepair,ConcreteOverlay,SealCoat DeckRepair,Thin_Overlay DeckRepair,Widening,PavementOverlay DeckRepair,Widening,PavementOverlay	\$75,000,000 \$849,000,000 Funding Source Federal Fund State Fund Federal Fund Federal Fund State Fund State Fund	50 50 5112,210,000 1 to 14 of 14 2021 5650,000 50 50 50 50 50 50 50 50 50	\$75,000,000 \$755,000,000 \$736,790,000 \$736,790,000 \$33,500,000 \$300,000 \$200,000 \$200,000 \$100,000,000 \$140,000	2023 2023 526,000,000 \$1,000,000 \$0 \$5,000,000 \$0 \$0 \$0	2024 2024 5500,000 51,000,000 50 56,500,000 50	2025 ted to projects 2025 \$5,000,000 \$3,000,000 \$3,000,000 \$30 \$3,000,000 \$30 \$3,000,000 \$30 \$3,000,000 \$30 \$3,000,000 \$30 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$5	202 <sup>A</sup> 202 <sup>S</sup> Available for 2026 \$500,000 \$0 \$0 \$4,000,000 \$0 \$0 \$0	2027 Year projects 2027 S0 S0 S0 S0 S0 S0 S0	2027 Total a 2 SO SO SO SO SO SO SO	کی کردیک معنا ( ) می می کرد می کرد می	20 <sup>12</sup> program 20 50 50 50 50 50 50 50	\$
Federal Fund Total Project ID PID0F581149 PID0F581149 PID42587F4 PID42587F4 PID43052DA0 PID0630CDA0 PID05305D8	2028 2028 Work Type DeckRepair, ConcreteOverlay, SealCoat DeckRepair, ConcreteOverlay, SealCoat DeckRepair, Thin_Overlay DeckRepair, Widening, PavementOverlay DeckRepair, Widening, PavementOverlay BridgeReplacement	\$75,000,000 \$849,000,000 Funding Source Federal Fund State Fund Federal Fund Federal Fund State Fund Federal Fund Federal Fund	50 50 5112,210,000 1 to 14 of 14 2021 5650,000 50 50 50 50 50 50 50 50 50	\$75,000,000 \$756,790,000 \$736,790,000 \$2022 \$3,500,000 \$500,000 \$200,000 \$200,000 \$10,000,000 \$140,000 \$0	2023 2023 226,000,000 \$1,000,000 \$0 \$5,000,000 \$0 \$5,000,000 \$0 \$2,200,000	2024 2024 2024 5500,000 51,000,000 50 50,500,000 50 50,500,000 50 50 50 50	2025 ted to projects 2025 55,000,000 50 53,000,000 50 50 53,700,000	202 <sup>A</sup> 202 <sup>S</sup> Available for 2026 \$500,000 \$00 \$00 \$4,000,000 \$00 \$00 \$00 \$00 \$00 \$00	۲۰۵۲ ۲ear ۲opiects ۲00 ۲00 ۲00 ۲00 ۲00 ۲00 ۲00	2027 Total a 2 SO SO SO SO SO SO SO	2025 Ilocated to 2029 S0 S0 S0 S0 S0 S0 S0	20 <sup>12</sup> program 20 50 50 50 50 50 50 50	9
Federal Fund Total PrOJECT ID PIDOF581149 PIDOF581149 PID42587F4 PID42587F4 PID4305DA0 PID4305D2C58 PID45652C58	2028 Vork Type DeckRepair, ConcreteOverlay, SealCoat DeckRepair, ConcreteOverlay, SealCoat DeckRepair, Thin_Overlay DeckRepair, Widening, PavementOverlay DeckRepair, Widening, PavementOverlay BridgeReplacement BridgeReplacement	\$75,000,000 \$849,000,000 Funding Source Federal Fund State Fund Federal Fund Federal Fund State Fund Federal Fund State Fund State Fund	50 50 5112,210,000 1 to 14 of 14 2021 5650,000 50 50 50 510,000,000 53,000,000 53,000,000 53,000,000 50	\$75,000,000 \$75,000,000 \$736,790,000 \$736,790,000 \$2022 \$3,500,000 \$500,000 \$200,000 \$200,000 \$10,000,000 \$140,000 \$0 \$220,000	2023 22023 226,000,000 51,000,000 50 55,000,000 50 57,200,000 50	2024 2024 5500,000 51,000,000 50 50 50,500,000 50 50 50 50 50	2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         3         2         0         2         3         2         3         2         3         2         3         2         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3	202. <sup>A</sup> 202 <sup>S</sup> Available for 2026 5500,000 500 500 500 500 500 500	۲۵۵ <sup>۲۵</sup> Year <b>projects</b> 2027 S0 S0 S0 S0 S0 S0	2027 Total a 2 SO SO SO SO SO SO SO	کری <sup>کی</sup> الامحدوط to 2002   2003   2003   2003   2003   2003   2003   2003	20 <sup>12</sup> program 20 50 50 50 50 50 50 50 50 50 50	

Figure 31: Example program summary of fund allocations from multiple sources to different projects.





Figure 32: An example of a generic program workflow for project advancement



C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C <t< th=""><th>idsplanner 🖌 🗮</th></t<>	idsplanner 🖌 🗮
	E Candidates
Project Name       Provide Name       Name       Official of Name       Official of Name       Official of Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Name       Nam	C ×
Poincetto         Wark Type         Yare         Extended est         Official Cest         Actual Cest         Poincetto tabular         I lating         I lating <thi lating<="" th=""> <thi lating<="" th="">         I la</thi></thi>	
PODDRISHA     Desktopering     Data     Status     Status     PodDRISHA     PoddRISHA     Desktopering     Desktopering <thdesktopering< th=""> <thdesktopering< th=""> <thdesktop< td=""><td>r funds 🡆 Refund funds</td></thdesktop<></thdesktopering<></thdesktopering<>	r funds 🡆 Refund funds
PD0545926     Deckloper     202     S1315/00	Amount
P004400C1     Pockfapair     321     \$1,57,146     \$1,57,146     \$1,32,143     P4PR0_GESS     P       P005200A0     Peckfapair,Wideing/Reement     221     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,57,146     \$1,55,17     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116     \$1,51,116 <td>\$650.000</td>	\$650.000
POR230000     Deckspat/Midening/Nerment     201     SSR,76,74     SSR,74     SSR,76,74 <t< td=""><td>\$3,500,000</td></t<>	\$3,500,000
plo43974     plo24997     slo2499     slo2499 <td>\$500,000</td>	\$500,000
p005311940x84spai (concett/orders/s)0x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,7495x171,749 </td <td>\$26,000,000</td>	\$26,000,000
902677099F     9169964000000000000000000000000000000000	\$1,000,000
pinkcode     Queikage     Queik	\$1,000,000
Diologeneration       Quadity       Statisty	\$500,000
Piblogeneration     Qeading and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and main and	\$5,000,000
PICAGC691     GedRapid     G201     SE 84847     SE 84847     SE 84847     SE 84847     M PROCERS     P       PID2EDFIDGC     GedRapid     G201     S27,429     S29,640     PROCESS     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S     S<	\$500,000
PD02E1F190C       DeckRepair       2021       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,74.99       \$27,757       \$27,757       \$27,757       \$27,757       \$27,757       \$27,757       \$27,757       \$27,757       \$27,757       \$27,757       \$27,757       \$27,757       \$27,757       \$27,757       \$27,757       \$27,757       \$27,757       \$27,757       \$27,757       \$27,757       \$27,777       \$27,757       \$27,757 <td>\$38,650,000</td>	\$38,650,000
IDD2C27091       QeckRepir       Q221       Sk8,595,14       S69,695       R0POD9D5       Image: Constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the constrained on the co	< Page 1 of 1 (5) (5)
Pipeopergoodsse         DeckRepair         2021         S444,883,345         S443,883,345         S443,883,345         S443,883,345         S444,883,345	-
Number of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state	
Image: Point with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second with the second withe second with the second with the second withe	•
Image: Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pione Pion	-
Asset Da       Mork Type       Year       Estimate Cost       Actual Cost       Cityat       Folde Log       Submit PID0FS81149 to be approved for PLANNING         06 0015       RNDGES       DeckRepair       2022       \$73,178       50	-
Asset DaMork TypeYearEstimated CostActual CostEstimated CostStatus: PRE-PLANNING06 0015BRIDGESDeckRepair2022\$73,178GostCityue06 0156DRIDGESDeckRepair2022\$110,559GostGost61 9405113HighwayHMA_Thin_Overlay2025\$1,216,081GostGost61 9405134HighwayHMA_Thin_Overlay2025\$1,217,051StatusFree Planning61 940514HighwayHMA_Thin_Overlay2025\$1,217,051StatusFree Planning61 940514HighwayHMA_Thin_Overlay2025\$1,217,051StatusFree Planning61 940514HighwayHighwayHMA_Thin_Overlay2025\$1,217,051StatusFree Planning61 940514HighwayHighwayHighway2025\$1,217,051StatusFree Planning61 940514HighwayHighwayHighway2025\$1,217,051StatusFree Planning61 940514HighwayHighwayHighwayStatusFree PlanningFree Planning61 940514HighwayHighwayHighwayHighwayStatusFree Planning61 940514HighwayHighwayHighwayHighwayStatusFree Planning61 940514HighwayHighwayHighwayHighwayStatusFree Planning61 940514HighwayHighwayHighwayHighwayHighwayHighwayHighway61 94051	•
06 0015       BRIDGES       DeckRepair       2022       \$73,178       \$0         06 0015       DRIDGES       DeckRepair       2022       \$73,178       \$0         06 0156       DRIDGES       DeckRepair       2022       \$110,569       \$0         619405113       Highway       HMA_Thin_Overlay       2025       \$1,216,081       \$0         61940514       Highway       HMA_Thin_Overlay       2025       \$491,351       \$0         619405344       Highway       HMA_Thin_Overlay       2025       \$1,270,501       \$0	
06 0156DRDCCSDeckRepair2022\$110,569\$0619405113HighwayHMA_Thin_Overlay2025\$1,216,081\$0619405144HighwayHMA_Thin_Overlay2025\$491,351\$061940514HighwayHMA_Thin_Overlay2025\$1,270,501\$0	
619405113       Highway       HMA_Thin_Overlay       2025       \$1,216,081       \$0         619405114       Highway       HMA_Thin_Overlay       2025       \$491,351       \$0         619405344       Highway       HMA_Thin_Overlay       2025       \$1,270,501       \$0	
619405114         Highway         HMA_Thin_Overlay         2025         \$491,351         \$0           619405344         Highway         HMA_Thin_Overlay         2025         \$1,270,501         \$0	
619405344 Highway HMA_Thin_Overlay 2025 \$1,270,501 \$0	
< >	

Figure 33: An example project portfolio showing details of a specific project including the list of tasks (treatments), allocated funds, and workflow status.




Figure 34: Example summary program status showing annual allocated funds, estimated costs, and actual expenditures.



What-if scenario analysis can be used for evaluating and predicting asset class-specific performance measures of a given project portfolios based on predictive performance models. The impact of changes in project statuses during program delivery phases can be evaluated, along with analyzing trade-offs of possible adjustments that can be introduced to ensure alignment with performance targets and funding constraints. Based on this analysis, program and project adjustments can be made and justified.

# 10 Comparison of Analysis Results and SHOPP Projects

In an attempt to compare the results of the proposed methodology against the actual SHOPP projects, a review of Caltrans SHOPP projects was undertaken. Appendix C includes a spreadsheet showing comparison of SHOPP projects and the results of planning scenarios simulating SHOPP 10-year investment levels for SHS bridges and pavements. To compare bridge projects, Caltrans bridge needs spreadsheet (updated on October 2019) and the official 2020 SHOPP project list were reviewed (Figure 35). Figure 36 shows a map of the bridge needs and SHOPP projects.

Bridge needs included 6,252 projects in total, with 1,369 records having associated SHOPP Tool ID values. The records were joined with corresponding projects in the official 2020 SHOPP project list using common SHOPP Tool ID. Approximately 711 needs projects had matching SHOPP IDs in the official plan. The resulting records were subsequently joined with the scenario result from SHOPP 10-years scenario (2021-2030) using bridge structure numbers as a common key. The SHOPP 10-year scenario assumed the same 4-year budget of the SHOPP program (\$722 million, \$766 million, \$452 million, \$551 million), and then assumed a constant budget of \$551 million for the remaining years.

The SHOPP 10-year planning scenario has approximately 198 bridge projects related to the SHOPP projects, mostly related to e.g., Bridge health, deck rehab, deck methacrylate treatments. However, the treatments definition and cost estimates varied widely between the recommended projects and official projects. The treatment types considered in the optimization scenario aligned with only a small subset of the treatments defined in the needs sheet. While the optimization algorithm considered six main treatments (bridge replacement, deck replacement, deck repair, concrete overlay, bridge widening, and prestressed beam end repair), the needs project list included several treatments that are not considered in the scenario, such as railing repair/upgrade, seismic retrofit, scour mitigation, substructure and superstructure rehabilitation, etc.



| al B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | C                                   | D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | E             | F                                                                               | G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | н                                                                                                                                                                                                                                         | 1                                                                                                                                                                                                                                                                                                                                           | 1                                                                                                                                                                                                                                                                                                       | K                                                                                                          | L M                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0                           | P                                                                                                                                                                                                                                                                                         | Q                                                                                                | R                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | T                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | U                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Z                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | AA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                         |                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                             |                                                                                                                                                                                                                                                                                           |                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 1 BrEA from SMI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Bridge Foun                         | d BridgeNo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | SHOPP tool ID | Dist I                                                                          | EFIS ID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | A                                                                                                                                                                                                                                         | County                                                                                                                                                                                                                                                                                                                                      | Route                                                                                                                                                                                                                                                                                                   | Begin E                                                                                                    | and PM Main Activity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          
                                                                                                                                                                                                                                                                                                                                                                                                | ategory Advertisem                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Construction Con            | n Funding So                                                                                                                                                                                                                                                                              | ou SMI Health P                                                                                  | DKRATING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SUPRATING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | SUBRATING                                                                                                                                                                                                                                                                                                                                                                                      
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | CULVRATING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SMI Scour P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SCOURCRIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SMI Seisr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | n SMI GM I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Pr SMI Rail Pre C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | on Health Pos                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | t-Condi Scour P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 2 01 00030B090                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 01 0003                             | 01 0003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 13126         | 1                                                                               | 100020444                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0B090                                                                                                                                                                                                                                     | Del Norte                                                                                                                                                                                                                                                                                                                                   | 101                                                                                                                                                                                                                                                                                                     | 8.2                                                                                                        | 8.7 Bridge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    
                                                                                                                                                                                                                                                                                                                                                                                                | 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 44825.7375                  | SHOPP                                                                                                                                                                                                                                                                                     | Good                                                                                             | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 8                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Poor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 3 01 00040F400                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 01 0004                             | 01 0004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | N/A           | 1                                                                               | 116000007                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0F400                                                                                                                                                                                                                                     | HUM                                                                                                                                                                                                                                                                                                                                         | VAR                                                                                                                                                                                                                                                                                                     |                                                                                                            | HM3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                | 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 43104                       | HM                                                                                                                                                                                                                                                                                        | Good                                                                                             | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 8                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 4 01 00060J860                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 01 0006                             | 01 0006                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | N/A           | 1                                                                               | 119000116                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 03860                                                                                                                                                                                                                                     | DN                                                                                                                                                                                                                                                                                                                                          | 199                                                                                                                                                                                                                                                                                                     |                                                                                                            | HM3 SHA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                | 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 45231                       | HM                                                                                                                                                                                                                                                                                        | Good                                                                                             | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 7                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5 01 00090J860                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 01 0009                             | 01 0009                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | N/A           | 1                                                                               | 119000116                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 03860                                                                                                                                                                                                                                     | DN                                                                                                                                                                                                                                                                                                                                          | 199                                                                                                                                                                                                                                                                                                     |                                                                                                            | HM3 SHA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                | 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 45231                       | HM                                                                                                                                                                                                                                                                                        | Fair                                                                                             | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 6 01 00160J860                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 01 0016                             | 01 0016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | N/A           | 1                                                                               | 119000116                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 03860                                                                                                                                                                                                                                     | DN                                                                                                                                                                                                                                                                                                                                          | 199                                                                                                                                                                                                                                                                                                     |                                                                                                            | HM3 SHA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                | 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 45231                       | HM                                                                                                                                                                                                                                                                                        | Fair                                                                                             | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 7 01 00200/180                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 01 0020                             | 01 0020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | N/A           | 1                                                                               | 118000186                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | J180 I                                                                                                                                                                                                                                    | HUM                                                                                                                                                                                                                                                                                                                                         | VAR                                                                                                                                                                                                                                                                                                     |                                                                                                            | HM3 SB1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                | 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 44501                       | HM                                                                                                                                                                                                                                                                                        | Fair                                                                                             | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Poor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Poor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Poor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Poor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 8 01 002043640                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 01 0020                             | 01 0020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 9014          | 1                                                                               | 100000193                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3640                                                                                                                                                                                                                                      | Del Norte                                                                                                                                                                                                                                                                                                                                   | 101                                                                                                                                                                                                                                                                                                     | 36.1                                                                                                       | 0 Bridge - Heal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                | th 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 45933,70833                 | SHOPP                                                                                                                                                                                                                                                                                     | Good                                                                                             | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 7                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Poor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Poor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Poor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 9 01 00230A100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 01 0023                             | 01 0023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | N/A           | 1                                                                               | 112000023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | A100                                                                                                                                                                                                                                      | DN                                                                                                                                                                                                                                                                                                                                          | 101                                                                                                                                                                                                                                                                                                     | 35.8                                                                                                       | 35 77 20 XX 201 113                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                | 2016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 42983 70833                 | SHOPP                                                                                                                                                                                                                                                                                     | Good                                                                                             | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 8                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Poor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 10 01 002301860                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 01 0023                             | 01 0023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | N/A           | 1                                                                               | 110000116                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 01860                                                                                                                                                                                                                                     | DN                                                                                                                                                                                                                                                                                                                                          | 100                                                                                                                                                                                                                                                                                                     | 00.0                                                                                                       | HM3 SHA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                | 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 42505.70055                 | HM                                                                                                                                                                                                                                                                                        | Good                                                                                             | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | r.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 11 01 002508000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 01 0025                             | 01 0025                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 12126         | 1                                                                               | 100020444                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0000                                                                                                                                                                                                                                      | Del Norte                                                                                                                                                                                                                                                                                                                                   | 101                                                                                                                                                                                                                                                                                                     | 0.2                                                                                                        | 9.7 Bridge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    
                                                                                                                                                                                                                                                                                                                                                                                                | 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 43231                       | SHODD                                                                                                                                                                                                                                                                                     | Good                                                                                             | 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 6                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Roor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 12 01 004504100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 01 0046                             | 01 0025                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | N/A           | 1                                                                               | 112000020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | A100                                                                                                                                                                                                                                      | DN                                                                                                                                                                                                                                                                                                                                          | 101                                                                                                                                                                                                                                                                                                     | 25.0                                                                                                       | 25 77 20 YY 201 113                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                | 2015                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 42083 70833                 | SHOPP                                                                                                                                                                                                                                                                                     | Good                                                                                             | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Poor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 13 01 0058E04100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 01 0058F                            | 01 0058F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | N/A           | 1                                                                               | 112000023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | A100 1                                                                                                                                                                                                                                    | DN                                                                                                                                                                                                                                                                                                                                          | 101                                                                                                                                                                                                                                                                                                     | 35.8                                                                                                       | 35 77 20 XX 201 113                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                | 2016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 42983 70833                 | SHOPP                                                                                                                                                                                                                                                                                     | Good                                                                                             | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 12                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Poor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 14 01 006304100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 01 0063                             | 01 0053                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | N/A           | 1                                                                               | 112000023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | A100                                                                                                                                                                                                                                      | DN                                                                                                                                                                                                                                                                                                                                          | 101                                                                                                                                                                                                                                                                                                     | 35.8                                                                                                       | 35 77 20 XX 201 113                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                | 2016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 42983 70833                 | SHOPP                                                                                                                                                                                                                                                                                     | Good                                                                                             | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 6                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Poor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 15 01 007005400                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 01 0079                             | 01 0070                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | N/A           | 1                                                                               | 116000023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | DE400                                                                                                                                                                                                                                     | HUM                                                                                                                                                                                                                                                                                                                                         | VAD                                                                                                                                                                                                                                                                                                     | 33.0                                                                                                       | UM2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                | 2010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 42505.70055                 | HM                                                                                                                                                                                                                                                                                        | Good                                                                                             | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 6                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Cood                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 16 02 000241120                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0003                             | 01 00/3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | N/A           | 2                                                                               | 210000007                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1400                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                             | VAD                                                                                                                                                                                                                                                                                                     |                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                | 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 44105                       | LIM                                                                                                                                                                                                                                                                                       | Good                                                                                             | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Enic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Cood                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Cood                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Enir                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 17 02 0002411130                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0002                             | 02 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 14100         | 2                                                                               | 210000134                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 11130                                                                                                                                                                                                                                     | Ciabiuau                                                                                                                                                                                                                                                                                                                                    | VAR                                                                                                                                                                                                                                                                                                     | 2.5                                                                                                        | 2 Paides Heal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 
                                                                                                                                                                                                                                                                                                                                                                                                | 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 44103                       | CHORD                                                                                                                                                                                                                                                                                     | Good                                                                                             | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Cali                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | S Ke                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Cand                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 19 02 0002111400                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0002                             | 02 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 14102         | 2                                                                               | 210000015                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 100                                                                                                                                                                                                                                       | Ciekiyou                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                         | D15.2 0                                                                                                    | J Dridge - ried                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                | un 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 40022.70033                 | SHOPP                                                                                                                                                                                                                                                                                     | Good                                                                                             | Ye .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Te.                                                                                                                                                                                                                                                                                                                                                                                            
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Cood                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Coord                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Fdii<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 10 02 000404540                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0004L                            | 02 0004L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 11244         | 2                                                                               | 215000004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 11050                                                                                                                                                                                                                                     | SISKIYOU                                                                                                                                                                                                                                                                                                                                    | Vez                                                                                                                                                                                                                                                                                                     | KID.5 H                                                                                                    | (16.5 bridge - Heal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                | th 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 445/5./0855                 | SHUPP                                                                                                                                                                                                                                                                                     | Fair                                                                                             | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 19 02 0004R1H950                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0004R                            | 02 0004R                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | N/A           | 2                                                                               | 216000159                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LH950 3                                                                                                                                                                                                                                   | 515                                                                                                                                                                                                                                                                                                                                         | Var                                                                                                                                                                                                                                                                                                     | Var V                                                                                                      | ar HM3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        
                                                                                                                                                                                                                                                                                                                                                                                                | 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 43413                       | HM                                                                                                                                                                                                                                                                                        | Fair                                                                                             | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 6                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 20 02 0004R4F540                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0004R                            | 02 0004R                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 11244         | 2                                                                               | 213000004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | +1-540                                                                                                                                                                                                                                    | SISKIYOU                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                         | R15.3 F                                                                                                    | 16.5 Bridge - Heal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            
                                                                                                                                                                                                                                                                                                                                                                                                | th 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 44575.70833                 | SHOPP                                                                                                                                                                                                                                                                                     | Fair                                                                                             | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 6                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 21 02 001526480                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0015                             | 02 0015                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 11161         | 2                                                                               | 200000586                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 26480                                                                                                                                                                                                                                     | SISKIYOU                                                                                                                                                                                                                                                                                                                                    | 263                                                                                                                                                                                                                                                                                                     | 56.8                                                                                                       | 57.2 Bridge - Heal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            
                                                                                                                                                                                                                                                                                                                                                                                                | th 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 44515.70833                 | SHOPP                                                                                                                                                                                                                                                                                     | Fair                                                                                             | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | r.                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Poor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 22 02 00224F600                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0022                             | 02 0022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 9269          | 2                                                                               | 213000012 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | +F600                                                                                                                                                                                                                                     | Irinity                                                                                                                                                                                                                                                                                                                                     | 299                                                                                                                                                                                                                                                                                                     | 0                                                                                                          | 0 Bridge - Heal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                | th 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 44845.70833                 | SHOPP                                                                                                                                                                                                                                                                                     | Good                                                                                             | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 23 02 00274F600                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0027                             | 02 0027                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 9269          | 2                                                                               | 213000012 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1F600                                                                                                                                                                                                                                     | Trinity                                                                                                                                                                                                                                                                                                                                     | 299                                                                                                                                                                                                                                                                                                     | 0                                                                                                          | 0 Bridge - Heal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                | th 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 44845.70833                 | SHOPP                                                                                                                                                                                                                                                                                     | Fair                                                                                             | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 6                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 24 02 0032L4G240                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0032L                            | 02 0032L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | N/A           | 2                                                                               | 213000095                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | G240                                                                                                                                                                                                                                      | SIS                                                                                                                                                                                                                                                                                                                                         | 005                                                                                                                                                                                                                                                                                                     | 24.9                                                                                                       | 25.59 20.XX.201.322                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                | 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 44119.70833                 | SHOPP                                                                                                                                                                                                                                                                                     | Good                                                                                             | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 7                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 25 02 0032R4G240                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0032R                            | 02 0032R                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | N/A           | 2                                                                               | 213000095                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | IG240                                                                                                                                                                                                                                     | SIS                                                                                                                                                                                                                                                                                                                                         | 005                                                                                                                                                                                                                                                                                                     | 24.9                                                                                                       | 25.59 20.XX.201.322                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                | 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 44119.70833                 | SHOPP                                                                                                                                                                                                                                                                                     | Good                                                                                             | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 7                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 26 02 0036R3H320                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0036R                            | 02 0036R                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 16682         | 2                                                                               | 217000097                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3H320                                                                                                                                                                                                                                     | Siskiyou                                                                                                                                                                                                                                                                                                                                    | 5                                                                                                                                                                                                                                                                                                       | 2.7 F                                                                                                      | R15.9 Pavement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
                                                                                                                                                                                                                                                                                                                                                                                                | 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 46342.70833                 | SHOPP                                                                                                                                                                                                                                                                                     | Good                                                                                             | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 7                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 27 02 00424G440                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0042                             | 02 0042                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 16609         | 2                                                                               | 214000013 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | G440                                                                                                                                                                                                                                      | Siskiyou                                                                                                                                                                                                                                                                                                                                    | 3                                                                                                                                                                                                                                                                                                       | 38                                                                                                         | 38.6 Bridge - Heal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            
                                                                                                                                                                                                                                                                                                                                                                                                | th 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 44573.70833                 | SHOPP                                                                                                                                                                                                                                                                                     | Fair                                                                                             | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 8                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 28 02 00441H950                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0044                             | 02 0044                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | N/A           | 2                                                                               | 216000159                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LH950                                                                                                                                                                                                                                     | SIS                                                                                                                                                                                                                                                                                                                                         | Var                                                                                                                                                                                                                                                                                                     | Var \                                                                                                      | /ar HM3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                | 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 43413                       | HM                                                                                                                                                                                                                                                                                        | Good                                                                                             | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 7                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 29 02 00464F550                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0046                             | 02 0046                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 11245         | 2                                                                               | 213000005 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4F550                                                                                                                                                                                                                                     | Siskiyou                                                                                                                                                                                                                                                                                                                                    | 89                                                                                                                                                                                                                                                                                                      | 20.9                                                                                                       | 21.2 Bridge - Heal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            
                                                                                                                                                                                                                                                                                                                                                                                                | th 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 43453                       | SHOPP                                                                                                                                                                                                                                                                                     | Poor                                                                                             | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                         |                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                             |                                                                                                                                                                                                                                                                                           | -3.23                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>7</b>                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 30 02 00652H080                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065                             | 02 0065                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               | 2                                                                               | 216000096                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2H080                                                                                                                                                                                                                                     | SHA                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                         |                                                                                                            | HM3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                | 2016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 42458                       | HM                                                                                                                                                                                                                                                                                        | Fair                                                                                             | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | /                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Fair                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 30 02 00652H080<br>31 02 00661H950                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066                  | 02 0065                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | N/A           | 2                                                                               | 216000096 :<br>216000159 :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2H080 !                                                                                                                                                                                                                                   | SHA<br>SIS                                                                                                                                                                                                                                                                                                                                  | Var                                                                                                                                                                                                                                                                                                     | Var N                                                                                                      | HM3<br>/ar HM3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
                                                                                                                                                                                                                                                                                                                                                                                                | 2016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 42458<br>43413              | HM<br>HM                                                                                                                                                                                                                                                                                  | Good                                                                                             | 8<br>7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 7                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N<br>N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | N/A<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good<br>Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Good<br>Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Good<br>Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Fair<br>Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | N/A<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 30 02 00652H080<br>31 02 00661H950                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B             | 02 0065<br>02 0066<br>C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | N/A           | 2<br>2<br>D                                                                     | 216000096<br>216000159<br>E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2H080 1                                                                                                                                                                                                                                   | SHA<br>SIS<br>F                                                                                                                                                                                                                                                                                                                             | Var                                                                                                                                                                                                                                                                                                     | Var \<br>G                                                                                                 | HM3<br>/ar HM3<br>H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                | 2016<br>2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 42458<br>43413<br>J         | HM                                                                                                                                                                                                                                                                                        | Good<br>K                                                                                        | 8<br>7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | N/A<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good<br>Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Good<br>Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Good<br>Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Fair<br>Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | N/A<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 30 02 00652H080<br>31 02 00661H950                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B             | 02 0065<br>02 0066<br>C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | N/A Rou       | 2<br>2<br>D                                                                     | 216000096 :<br>216000159 :<br>E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2H080 1                                                                                                                                                                                                                                   | SHA<br>SIS<br>F                                                                                                                                                                                                                                                                                                                             | Var                                                                                                                                                                                                                                                                                                     | Var V<br>G                                                                                                 | HM3<br>/ar HM3<br>H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                | 2016<br>2018<br>I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 42458<br>43413<br>J         | HM<br>HM                                                                                                                                                                                                                                                                                  | Fair<br>Good<br>K                                                                                | 7<br>7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | N/A<br>N/A<br>V4.0 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | N<br>N<br>D20 SHOP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good<br>Good<br>P Proje                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good<br>Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Good<br>Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Fair<br>Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | N/A<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 30 02 00652H080<br>31 02 00661H950<br>A<br>1 SHOPP ID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B<br>District | 02 0065<br>02 0066<br>C<br>County                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | N/A<br>Rou    | 2<br>2<br>D<br>Jte B                                                            | 216000096 :<br>216000159 :<br>E<br>egin Mile                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2H080 1<br>1H950 1<br>End                                                                                                                                                                                                                 | SHA<br>SIS<br>F<br>Mile                                                                                                                                                                                                                                                                                                                     | Var<br>Activity                                                                                                                                                                                                                                                                                         | Var V<br>G                                                                                                 | HM3<br>/ar HM3<br>HM3<br>Planning_or_P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        
                                                                                                                                                                                                                                                                                                                                                                                                | 2016<br>2018<br>I<br>ost_Adertised Year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 42458<br>43413<br>J<br>Cost | HM<br>HM<br>SB                                                                                                                                                                                                                                                                            | Good<br>K<br>1_Priority                                                                          | <sup>8</sup><br>7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | N/A<br>N/A<br>V4.0 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good<br>Good<br>P Proje                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good<br>Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Good<br>Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Fair<br>Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | N/A<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 30         02         00652H080           31         02         00661H950           A         1         SHOPP ID           2         20275                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B<br>District | 02 0065<br>02 0066<br>C<br>County<br>1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | N/A<br>Rou    | 2<br>2<br>D<br>Jte B<br>101                                                     | 21600096 :<br>216000159 :<br>E<br>egin Mile                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2H080 1<br>1H950 1<br>End<br>0                                                                                                                                                                                                            | SHA<br>SIS<br>F<br>Mile<br>46.5                                                                                                                                                                                                                                                                                                             | Var<br>Activity<br>Drainage                                                                                                                                                                                                                                                                             | Var V<br>G                                                                                                 | HM3<br>/ar HM3<br>Hanning_or_P<br>Planning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    
                                                                                                                                                                                                                                                                                                                                                                                                | 2016<br>2018<br>I<br>ost_Adertised Year<br>2026_27                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 42458<br>43413<br>J<br>Cost | SB<br>Ve                                                                                                                                                                                                                                                                                  | Fair<br>Good<br>K<br>1_Priority<br>S                                                             | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8<br>8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 7                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | N/A<br>N/A<br>V4.0 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | N<br>20 SHOP<br>Alame<br>(\$1.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good<br>Good<br>P Proje<br>eda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Good<br>Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Good<br>Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Fair<br>Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | N/A<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 30 02 00652H080<br>31 02 00661H950<br>A<br>1 SHOPP ID<br>2 20275<br>3 22305                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B<br>District | 02 0065<br>02 0066<br>County<br>1 Del Norte<br>1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | N/A<br>Rou    | 2<br>2<br>Jte Be<br>101<br>101                                                  | 21600096 :<br>216000159 :<br>E<br>egin Mile                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | End<br>0<br>8.2                                                                                                                                                                                                                           | SHA<br>SIS<br>F<br>Mile<br>46.5                                                                                                                                                                                                                                                                                                             | Var<br>Activity<br>Drainage<br>Bridge                                                                                                                                                                                                                                                                   | Var V<br>G                                                                                                 | HM3<br>/ar HM3<br>Planning_or_P<br>Planning<br>Post-Planning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  
                                                                                                                                                                                                                                                                                                                                                                                                | 2016<br>2018<br>Jost Adertised Year<br>2026_27<br>2021_22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 42458<br>43413<br>J<br>Cost | SHM<br>SB<br>Ye:<br>438 Ye:                                                                                                                                                                                                                                                               | Fair<br>Good<br>K<br>1_Priority<br>S                                                             | Dist-Pos                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Co-Rte<br>t Mile<br>NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Locati                                                                                                                                                                                                                                                                                                                                                                                         
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N<br>N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | N/A<br>N/A<br>V4.0 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | N<br>N<br>D20 SHOP<br>Alama<br>(\$1,00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good<br>Good<br>P Proje<br>eda<br>bo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good<br>Good<br>Ct List                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Good<br>Good<br>Allor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Fair<br>Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | N/A<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 30 02 00652H080<br>31 02 00661H950<br>A<br>1 SHOPP ID<br>2 20275<br>3 22305<br>4 16494                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B<br>District | 02 0065<br>02 0066<br>County<br>1 Del Norte<br>1 Del Norte<br>1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | N/A<br>Rou    | 2<br>D<br>ute B<br>101<br>101<br>101                                            | 21600096 :<br>216000159 :<br>E<br>egin Mile                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2H080 1<br>1H950 1<br>End<br>0<br>8.2<br>12                                                                                                                                                                                               | SHA<br>SIS<br>F<br>Mile<br>46.5<br>8.7<br>15.5                                                                                                                                                                                                                                                                                              | Var<br>Activity<br>Drainage<br>Bridge<br>Maior Dan                                                                                                                                                                                                                                                      | G<br>G                                                                                                     | HM3<br>/ar HM3<br>Planning_or_P<br>Planning<br>Post-Planning<br>rmane Post-Planning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                | 2016<br>2018<br>st, Adertised Year<br>2026_27<br>2021_22<br>2030_31                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 42458<br>43413<br>J<br>Cost | 6 HM<br>6 HM<br>5B<br>7e<br>438 Ye<br>10075                                                                                                                                                                                                                                               | Fair<br>Good<br>K<br>1_Priority<br>S<br>S                                                        | Dist-<br>Pos<br>Proj<br>Ot-Alo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Co-Rte<br>t Male<br>t Male<br>t D<br>meda-84                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Locatie<br>Vear Sunol, at                                                                                                                                                                                                                                                                                                                                                                      
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N<br>N<br>on/Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | N/A<br>N/A<br>V4.0 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | N<br>N<br>D20 SHOP<br>Alama<br>(\$1,00<br>D3550                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good<br>Good<br>P Proje<br>eda<br>NO)<br>Capital<br>R/W: 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Good<br>Good<br>Ct List                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Good<br>Good<br>Alloc<br>Alloc<br>ED: \$1,863 Pi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good<br>OS<br>Protion<br>PY Million                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | N/A<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 30 02 00652H080<br>31 02 00661H950<br>A<br>1 SHOPP ID<br>2 20275<br>3 22305<br>4 16494<br>5 21946                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B<br>District | 02 0065<br>02 0066<br>County<br>1 Del Norte<br>1 Del Norte<br>1 Del Norte<br>1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | N/A Rou       | 2<br>2<br>Jute Be<br>101<br>101<br>101<br>101                                   | 21600096 :<br>216000159<br>E<br>egin Mile                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | End<br>0<br>8.2<br>12                                                                                                                                                                                                                     | SHA<br><u>F</u><br>Mile<br>46.1<br>8.7<br>15.5<br>12.5                                                                                                                                                                                                                                                                                      | Var<br>Activity<br>Drainage<br>Bridge<br>Major Dan                                                                                                                                                                                                                                                      | G<br>G<br>nage - Pe                                                                                        | HM3<br>/ar HM3<br>Hanning_or_P<br>Planning<br>Post-Planning<br>rmane Post-Planning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            
                                                                                                                                                                                                                                                                                                                                                                                                | 2016<br>2018<br>I<br>ost, Adertised Year<br>2026_27<br>2021_22<br>2030_31<br>2023_24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 42458<br>43413<br>J<br>Cost | 8 HM<br>8 HM<br>SB<br>Ye<br>438 Ye<br>10075                                                                                                                                                                                                                                               | Fair<br>Good<br>K<br>1_Priority<br>s<br>s                                                        | B<br>Pos<br>Proj<br>Od-Ala<br>17.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Co-Rte<br>FMae<br>FMae<br>NO<br>ect ID<br>meda-84<br>2/17.4 E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Locatio                                                                                                                                                                                                                                                                                                                                                                                        
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N<br>N<br>On/Description<br>Arroyo De La<br>20043.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | N/A<br>N/A<br>V4.0 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | N<br>220 SHOP<br>Alama<br>(\$1,00<br>00<br>Year<br>0,0550<br>0021-22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good<br>Good<br>P Proje<br>eda<br>bo)<br>Capital<br>R/W: 1<br>Con: \$13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good<br>Good<br>Ct List                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Good<br>Good<br>Allow<br>Allow<br>ED: \$1,863 P<br>8.E: \$3,600 P<br>w: \$1250 P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good<br>Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | N/A<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 30 02 00652H080<br>31 02 00651H950<br>A<br>1 SHOPP ID<br>2 20275<br>3 22305<br>4 16494<br>5 21946                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B<br>District | 02 0065<br>02 0066<br>C<br>County<br>1 Del Norte<br>1 Del Norte<br>1 Del Norte<br>1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | N/A<br>Rou    | 2<br>2<br>Jte B4<br>101<br>101<br>101<br>101                                    | 21600096 :<br>216000159 :<br>E<br>egin Mile                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | End<br>0<br>8.2<br>12<br>2.6                                                                                                                                                                                                              | SHA<br><u>F</u><br>Mile<br>46.5<br>8.7<br>15.5<br>13.4                                                                                                                                                                                                                                                                                      | Var<br>Activity<br>Drainage<br>Bridge<br>Major Dan<br>Major Dan                                                                                                                                                                                                                                         | Var N<br>G<br>nage - Pe<br>nage - Pe                                                                       | HM3<br>/ar HM3<br>Planning_or_P<br>Planning<br>Post-Planning<br>rmane Post-Planning<br>rmane Planning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         
                                                                                                                                                                                                                                                                                                                                                                                                | 2016<br>2018<br>1<br>ost, Adertised Year<br>2026_27<br>2021_22<br>2030_31<br>2023_24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 42458<br>43413<br>J<br>Cost | 5 HM<br>5 HM<br>5 SB<br>7 Ye<br>438 Ye<br>10075                                                                                                                                                                                                                                           | Fair<br>Good<br>K<br>1_Priority<br>s<br>s                                                        | 8<br>7<br>Pot<br>Proj<br>04 Alo<br>17<br>04<br>0414                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Co-Rie<br>f Mile<br>ect ID<br>meda-84<br>//12.4<br>81M<br>5000012                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Locatio<br>Locatio<br>Near Sunol, at<br>Inidge No, 33-<br>amitigation, brite<br>isinging a total                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N<br>N<br>On/Description<br>Arroyo De La<br>Dotă.<br>biliste holdge<br>dge rall upgra                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | V/A<br>N/A<br>V4.0 20<br>The product of the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second se                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | N<br>220 SHOP<br>Alama<br>(\$1.00<br>5 Your<br>0.0550<br>0.021-22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good<br>Good<br>P Proje<br>eda<br>Capital<br>R/W: 1<br>Con: \$13<br>dat. \$13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Good<br>Good<br>Ct List                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Good<br>Good<br>Altor<br>Ppport<br>ED: \$1,863 P<br>&E: \$3,500 P<br>\$250 P<br>9 yp: \$3,500 21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Good<br>Good<br>Cos<br>Costion<br>FY Mile<br>R/W Ce<br>Begin Co                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | N/A<br>N/A<br>Caltrans<br>Restores<br>D: 10/1/2020<br>rt: 31/1/2022<br>rr: 11/30/2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 30         022         00652H080           31         02         00661H950           A         1         SHOPP ID           2         20275         3           3         22305         4         16494           5         21946         6         17537                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B<br>District | 02 0065<br>02 0066<br>County<br>1 Del Norte<br>1 Del Norte<br>1 Del Norte<br>1 Del Norte<br>1 Del Norte<br>1 Del Norte<br>1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | N/A Rou       | 2<br>2<br>Jute Br<br>101<br>101<br>101<br>101<br>101                            | 21600096<br>216000159<br>E<br>egin Mile<br>1<br>2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | End<br>0<br>8.2<br>12<br>2.6<br>1.2                                                                                                                                                                                                       | SHA<br>SIS<br>F<br>Mile<br>46.5<br>8.7<br>15.5<br>13.2                                                                                                                                                                                                                                                                                      | Var<br>Activity<br>Drainage<br>Bridge<br>Major Dan<br>Major Dan                                                                                                                                                                                                                                         | Var V<br>G<br>nage - Pe<br>nage - Pe                                                                       | HM3<br>/ar HM3<br>Planning_or_P<br>Planning<br>Post-Planning<br>rmane Post-Planning<br>rmane Planning<br>rmane Post-Planning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  
                                                                                                                                                                                                                                                                                                                                                                                                | 2016<br>2018<br>1<br>1<br>2026_27<br>2021_22<br>2030_31<br>2023_24<br>2020_21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 42458<br>43413<br>J<br>Cost | 8 HM<br>8 HM<br>5 SB<br>7 Ve<br>438 Ye<br>10075<br>18227                                                                                                                                                                                                                                  | Fair<br>Good<br>K<br>1_Priority<br>S<br>S                                                        | B<br>Pos<br>Proj<br>OdrAda<br>12/<br>04<br>0414<br>Com                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Co-Rte<br>f Mile<br>rNO<br>ecf ID<br>media-84<br>2/12.4<br>BIM<br>000012<br>r<br>yover                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Locatie<br>Near Sunol, at<br>Inidge No. 33-3<br>Zepture Antone<br>miligation, brite<br>elemic retrofit                                                                                                                                                                                                                                                                                         
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N<br>N<br>On/Descriphi<br>Arroyo De La<br>0043.<br>bilitate huidge<br>dge rall upgra                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | V/A<br>N/A<br>V4.0 20<br>In Pr<br>Loguno<br>for social<br>de and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | N<br>N<br>D20 SHOP<br>Alama<br>(\$1.00<br>00 Year<br>0.0550<br>0.021-22<br>Subte<br>Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good<br>Good<br>P Proje<br>eda<br>bo)<br>Capital<br>R/W: \$<br>Con: \$13<br>Project Ca                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Good<br>Good<br>Ct List<br>List<br>Soo PAE<br>R/W S<br>Con S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Good<br>Good<br>Alter<br>poort<br>51,860 P<br>4E: 51,860 P<br>4E: 53,600 21<br>59,313<br>52,813                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Fair<br>Good<br>Section<br>Fry Mi<br>R/W Ce<br>Begin Co                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | N/A<br>N/A<br>Caltrans<br>Bestones<br>Ap: 10/1/2020<br>HT: 31/1/2022<br>Th: 41/2022<br>Str: 11/30/2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 30         022065214080           31         0220066114950           2         20066114950           31         220075           3         22305           4         16494           5         21946           6         17537           7         16236                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B<br>District | 2 2005<br>02 2006<br>County<br>1 Del Norte<br>1 Del Norte<br>1 Del Norte<br>1 Del Norte<br>1 Del Norte<br>1 Del Norte<br>1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | N/A Rou       | 2<br>2<br>Jute Br<br>101<br>101<br>101<br>101<br>101<br>101                     | 21600096<br>216000159<br>E<br>egin Mile<br>1<br>2<br>2<br>2<br>2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | End<br>0<br>8.2<br>12<br>2.6<br>1.2<br>5.6                                                                                                                                                                                                | SHA<br>SIS<br>F<br>Mile<br>46.5<br>8.7<br>15.5<br>13.4<br>27.3                                                                                                                                                                                                                                                                              | Var<br>Activity<br>Drainage<br>Bridge<br>Major Dan<br>Major Dan<br>Major Dan<br>Mobility -                                                                                                                                                                                                              | Var V<br>G<br>nage - Pe<br>nage - Pe<br>nage - Pe<br>ADA                                                   | HM3<br>/ar HM3<br>Planning_or_P<br>Planning<br>Post-Planning<br>rmane Post-Planning<br>rmane Post-Planning<br>Post-Planning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   
                                                                                                                                                                                                                                                                                                                                                                                                | 2016<br>2018<br>ost, Adertised Year<br>2026_27<br>2021_22<br>2030_31<br>2023_24<br>2020_21<br>2029_20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 42458<br>43413<br>J<br>Cost | 8 HM<br>8 HM<br>5 B<br>7 e<br>438 Ye<br>10075<br>18227<br>10157                                                                                                                                                                                                                           | Fair<br>Good<br>K<br>1_Priority<br>S<br>S                                                        | B<br>Dist-<br>Pos<br>Proj<br>Od-Alio<br>17,<br>04<br>0414<br>Con                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Co-Rie<br>f Mile<br>NO<br>ect ID<br>meda-84<br>000012                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Locatie<br>Near Sunol, at<br>Inidge No, 33-<br>Zeptuse Arbito<br>Inifigation, brite<br>elemic retrofit                                                                                                                                                                                                                                                                                         
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N<br>N<br>On/Descriphi<br>Arroyo De La<br>2043.<br>biliste holdge<br>dge rall upgra                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | N/A<br>N/A<br>V4.0 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | N<br>N<br>D20 SHOP<br>Alama<br>(\$1.00<br>D20 SHOP<br>(\$1.00<br>D20 SHOP<br>(\$                                                                                                                                                                                                                                                                                                                                                                          | Good<br>Good<br>P Proje<br>eda<br>bo)<br>Capital<br>R/W: 1<br>Con: \$13<br>Project Ca                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Good<br>Good<br>Ct List<br>Soo PAL<br>Soo PAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Good<br>Good<br>ED: \$1,860<br>ED: \$1,860<br>ED: \$1,860<br>Ppport<br>S2,800<br>S22,813                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Good<br>Good<br>Section<br>Nor<br>PASE<br>R/W Ce<br>Begin Co                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | N/A<br>N/A<br>Calbrans<br>Bestenes<br>D: 10/1/2020<br>D: 10/1/2022<br>D: 11/20/2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 30 02 00652H080<br>31 02 00651H950<br>▲ A<br>1 SHOPP ID<br>2 20275<br>3 22305<br>4 16494<br>5 21946<br>6 17537<br>7 16236<br>8 22446                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B<br>District | 22 0065<br>02 0066<br>County<br>1 Del Norte<br>1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | N/A Rou       | 2<br>2<br>D<br>101<br>101<br>101<br>101<br>101<br>101<br>101<br>101             | 21600096<br>216000159<br>E<br>egin Mile<br>1<br>2<br>2<br>2<br>3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | End<br>0<br>8.2<br>12<br>2.6<br>1.2<br>5.6<br>1.2                                                                                                                                                                                         | SHA<br><u>SIS</u><br><u>F</u><br>Mile<br><u>46.5</u><br>8.7<br>15.5<br>13.2<br>27.3<br>39.6                                                                                                                                                                                                                                                 | Var<br>Activity<br>Drainage<br>Bridge<br>Major Dan<br>Major Dan<br>Major Dan<br>Major Dan<br>Safety Imo                                                                                                                                                                                                 | Var V<br>G<br>nage - Pe<br>nage - Pe<br>nage - Pe<br>ADA<br>provemei                                       | HM3<br>/ar HM3<br>Planning_or_P<br>Planning<br>Post-Planning<br>mane Post-Planning<br>post-Planning<br>post-Planning<br>post-Planning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   
                                                                                                                                                                                                                                                                                                      | 2016<br>2019<br>2019<br>2026_27<br>2021_22<br>2030_31<br>2023_24<br>2020_21<br>2023_20<br>2019_20<br>2021_22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 42458<br>43413<br>J<br>Cost | 5 HM<br>5 HM<br>5 SB<br>7 Ve<br>438 Ye<br>10075<br>18227<br>10157                                                                                                                                                                                                                         | Fair<br>Good<br>I_Priority<br>S<br>S                                                             | Dist-<br>Por<br>Proj<br>Od Xia<br>Od 1/2<br>0 014<br>Can                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Co-Rte<br>f Mile<br>r Mile<br>oct ID<br>//1/.4<br>bitM<br>cocol12<br>ryover                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Locatie<br>Vear Sunol, at<br>Indige No. 33-<br>Der Dire / Indige No. 33-<br>Der Dire / Indige<br>Indiget India                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | N<br>N<br>Arroyo De La<br>0043.<br>hulitate kuinge<br>ge rail upgra                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | N/A<br>V4.0 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | N<br>220 SHOP<br>Alama<br>(\$1,00<br>EA<br>og Year<br>OJS80<br>OJS80<br>OJS80<br>Subte<br>Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Good<br>Good<br>P Proje<br>eda<br>bo)<br>Copilal<br>R/W: 1<br>Con: \$13<br>Project Co<br>Prog                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Good<br>Good<br>Cool<br>Cool<br>Cool<br>Cool<br>Cool<br>Cool<br>Cool<br>C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Good<br>Good<br>Allor<br>2000<br>ED: \$1,863<br>ED: \$1,863<br>E           | Fair<br>Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | N/A<br>N/A<br>N/A<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contrars<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>Contra<br>C                                                               |
| 30 022 00652H080<br>31 02 00661H950<br>A<br>1 SHOPP ID<br>2 20275<br>3 22305<br>4 16494<br>5 21946<br>6 17537<br>7 16236<br>8 21446<br>9 9 9014                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B<br>District | 2 2005<br>02 2006<br>County<br>1 Del Norte<br>1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | N/A Rou       | 2<br>2<br>D<br>101<br>101<br>101<br>101<br>101<br>101<br>101                    | 21600096 :<br>216000159 :<br>E<br>egin Mile<br>1<br>2<br>2<br>2<br>3<br>3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | End<br>0<br>8.2<br>1.2<br>5.6<br>1.2<br>5.8                                                                                                                                                                                               | SHA<br>SIS<br>F<br>Mile<br>46.5<br>8.7<br>15.5<br>13.2<br>27.3<br>39.6<br>36.9                                                                                                                                                                                                                                                              | Var<br>Activity<br>Drainage<br>Bridge<br>Major Dan<br>Major Dan<br>Major Dan<br>Major Dan<br>Safety Imp<br>Bridge                                                                                                                                                                                       | G<br>G<br>nage - Pe<br>nage - Pe<br>nage - Pe<br>ADA<br>provemen                                           | HM3<br>HM3<br>HM3<br>HM3<br>Planning or p<br>Planning<br>Post-Planning<br>rmane Post-Planning<br>Post-Planning<br>Post-Planning<br>Post-Planning<br>Post-Planning<br>Post-Planning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      
                                                                                                                                                                                                                                                                                                      | 2016<br>2019<br>2019<br>2026_27<br>2021_22<br>2030_31<br>2023_24<br>2020_21<br>2020_21<br>2019_20<br>2021_22<br>2020_1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 42458<br>43413<br>J<br>Cost | 8 HM<br>8 HM<br>5B<br>7e<br>438 Ye<br>10075<br>18227<br>10157<br>84989 Ye                                                                                                                                                                                                                 | Fair<br>Good<br>K<br>1_Priority<br>S<br>S                                                        | B<br>Diat-<br>Por<br>Proj<br>od Xio<br>17<br>od Alid<br>Can                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 8<br>8<br>1 Miles<br>1                                                                                                           | Locatie<br>Vegr Sunol, at<br>Indiae No. 333<br>Septence/reho<br>Higgetton. brit<br>elismic retrotit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | N<br>N<br>N<br>Arroyo De La<br>2043.<br>Billitate Indige<br>rall upgro                                                                                                                                                                                                                                                                                                     
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N/A<br>N/A<br>V4.0 20<br>Daguna<br>for social<br>de and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | N<br>220 SHOP<br>Alama<br>(\$1,00<br>EA<br>og Year<br>0J800<br>0J800<br>Suble<br>Total<br>Pro                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Good<br>Good<br>P Proje<br>eda<br>NO)<br>Capilal<br>R/W: 1<br>Con: \$13<br>Project Co<br>Prog<br>glect Output                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Good<br>Good<br>Ct List<br>Stop PA&<br>Stop                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Good<br>Good<br>Good<br>Altor<br>Apport<br>ED: \$1,843 P<br>Altor<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830<br>\$2,830 | Cos<br>cos<br>cost<br>cost<br>cost<br>cost<br>cost<br>cost<br>cos                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
N/A<br>N/A<br>Cafbrans<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Bestones<br>Best                                                                                                                                                                                                   |
| 30         02         00652H800           31         02         00651H800           2         202075         3           2         202075         3           4         16494         5           5         21946         6           7         16236         8           8         21446         9           9         9044         9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B<br>District | 02 0065<br>02 0066<br>County<br>1 Del Norte<br>1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | N/A Rou       | 2<br>2<br>D<br>101<br>101<br>101<br>101<br>101<br>101<br>101<br>101             | 215000096<br>215000159<br>E<br>egin Mile<br>1<br>2<br>2<br>2<br>2<br>3<br>3<br>3<br>3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | End<br>0<br>8.2<br>12<br>2.6<br>1.2<br>5.6<br>1.2<br>5.8                                                                                                                                                                                  | SHA<br>SIS<br>F<br>Mile<br>46.:<br>15.:<br>13.:<br>27.:<br>39.:<br>36.:                                                                                                                                                                                                                                                                     | Var<br>Activity<br>Drainage<br>Bridge<br>Major Dan<br>Major Dan<br>Major Dan<br>Major Dan<br>Safety Imp<br>Bridge                                                                                                                                                                                       | Var N<br>G<br>nage - Pe<br>nage - Pe<br>nage - Pe<br>ADA<br>provemen                                       | HM3<br>HM3<br>Planning, or_P<br>Planning<br>Post-Planning<br>mane Post-Planning<br>mane Post-Planning<br>post-Planning<br>post-Planning<br>post-Planning<br>Post-Planning<br>Post-Planning<br>Post-Planning<br>Post-Planning<br>Post-Planning<br>Post-Planning<br>Post-Planning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         
                                                                                                                                                                                                                                                                                                      | 2016<br>2019<br>2015<br>2026_27<br>2021_22<br>2030_31<br>2023_24<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 42458<br>43413<br>J<br>Cost | 8 HM<br>8 HM<br>8 SB<br>9 Ye<br>438 Ye<br>10075<br>18227<br>10157<br>84989 Ye:                                                                                                                                                                                                            | Fair<br>Good<br>K<br>1_Priority<br>S<br>S                                                        | 8<br>7<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 8<br>8<br>5<br>5<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Locati<br>Vear Sunal, at<br>Bridge Ho, 33-1<br>Bridgelon, Johnson<br>Higgelon, brin<br>Bridgelon, brin<br>Bridgelon, brin<br>Bridgelon, brin<br>Bridgelon, brin<br>Bridgelon, brin<br>Bridgelon, brin<br>Bridgelon, bridgelon, bridgelo                                                                                                                                                                                                                                                  
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | N<br>N<br>Arroyo De La<br>Dotă.<br>Silente horiga<br>Îge rali ungra                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | N/A<br>V4.0 20<br>Laguna<br>for socur<br>de and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | N<br>N<br>200 SHOP<br>Alama<br>(\$1,00<br>0050<br>0021-22<br>Subte<br>Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Good<br>Good<br>P Proje<br>eda<br>NO<br>Copilal<br>R/W: 1<br>Con: \$13<br>Project Co<br>Prog<br>gject Output                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Good<br>Good<br>Ct List<br>Soo PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000 PAE.<br>000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Good<br>Good<br>C<br>Aller<br>Apport<br>ED: \$1,863 P<br>Aller<br>\$2,31,863 P<br>With \$3,860 P<br>With \$3,860 P<br>\$2,31,863 P<br>With \$3,860 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,863 P<br>\$2,31,31 P<br>\$2,31,31 P<br>\$2,31,31 P<br>\$2,31,31 P<br>\$2,31,31 P<br>\$2,31,31 P<br>\$2,31,31 P<br>\$2,31,31 P<br>\$2,31,31 P<br>\$2,31,31 P<br>\$2,31,31 P<br>\$1,81,92 P<br>\$2,31,31 P<br>\$2,31,31 P<br>\$1,81,92 P<br>\$2,31,31 P<br>\$2,31,31 P<br>\$1,81,92 P<br>\$2,31,31 P<br>\$1,81,92 P<br>\$2,31,31 P<br>\$1,81,92 P<br>\$2,31,31 P<br>\$1,81,92 P<br>\$2,31,31 P<br>\$1,81,92 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91 P<br>\$1,91                                                                                                                                                                     | CS<br>COS<br>continue<br>cos<br>cos<br>cos<br>cos<br>cos<br>cos<br>cos<br>cos                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | N/A<br>N/A<br>Cartrans<br>Restones<br>Dr: 10/1/2022<br>Dr: 11/2022<br>Pr: 11/2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 30         02         00652H800           31         02         00652H930           4         1         SHOPP ID           2         20275         3           3         22305         4           4         16544         5           5         21946         6           6         17537         7           7         16236         8           9         9014         10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B<br>District | 02 0065           02 0066           C           County           1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N/A Rou       | 2<br>2<br>D<br>101<br>101<br>101<br>101<br>101<br>101<br>101<br>101<br>101      | 215000096<br>216000159<br>E<br>egin Mile<br>1<br>2<br>2<br>3<br>3<br>3<br>3<br>3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | End<br>0<br>8.2<br>12<br>2.6<br>1.2<br>5.6<br>1.2<br>5.8<br>9.8                                                                                                                                                                           | SHA<br>SIS<br>F<br>Mile<br>46.:<br>8<br>15.:<br>13<br>27.:<br>39.(<br>36.5)                                                                                                                                                                                                                                                                 | Var<br>Activity<br>Drainage<br>Bridge<br>Major Dan<br>Major Dan<br>Mobility -<br>Safety Imp<br>Bridge<br>Bridge                                                                                                                                                                                         | Var N<br>G<br>nage - Pe<br>nage - Pe<br>nage - Pe<br>ADA<br>provemen                                       | HM3<br>Var HM3<br>Planning, or_P<br>Planning<br>Post-Planning<br>mmane Post-Planning<br>mmane Post-Planning<br>Post-Planning<br>Post-Planning<br>Post-Planning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          
                                                      | 2016<br>2019<br>2026_27<br>2026_27<br>2021_22<br>2030_31<br>2023_24<br>2020_21<br>2019_20<br>2021_22<br>2020_21<br>2021_22<br>2020_21<br>2019_20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 42458<br>43413<br>J<br>Cost | 8 HM<br>8 HM<br>8 SB<br>9 Ye<br>438 Ye<br>10075<br>18227<br>10157<br>84989 Ye<br>10009 Ye                                                                                                                                                                                                 | Fair<br>Good<br>K<br>1_Priority<br>S<br>S<br>S                                                   | B<br>7<br>Dist-<br>Por<br>P<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 6<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1<br>7<br>4ear Sunol, at<br>bifuga Ino. 33<br>2epting Alaba<br>Migaalon, bifu                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | N<br>N<br>Amoyo De La<br>0043.<br>Billiote hurige<br>gige roll uppro                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | VA.020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | N<br>N<br>200 SHOPP<br>Alama<br>(\$1.00<br>0000<br>9 Year<br>0000<br>0001-22<br>Suble<br>Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Good<br>Good<br>P Proje<br>ada<br>So)<br>Capitol<br>R/W: S<br>Con: S13<br>Viol: S13,<br>Project Co                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Good<br>Good<br>Ct List<br>Soo PAE.<br>Soo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Good         Cool           Good         Good           Good         ABord           DD:         \$1,863         Pi           Stars         \$22,813         \$22,813           11         Bridge Scourt         1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Cos<br>Good<br>Cos<br>Cos<br>Cos<br>Cos<br>Cos<br>Cos<br>Cos<br>Cos<br>Cos<br>Cos                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | N/A<br>N/A<br>Calbons<br>Calbons<br>Do: 10/1/2020<br>H: 34/1/2022<br>W: 11/50/2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 30         02         00652H890           31         02         0661H950           2         20275         3         22305           4         16494         5         21946           6         17537         7         16236         8         21446           9         9014         10         16887         11         202071                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B<br>District | 02 0065<br>02 0066<br>County<br>1 Del Norte<br>1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | N/A Rou       | 2<br>2<br>D<br>101<br>101<br>101<br>101<br>101<br>101<br>101<br>101<br>101<br>1 | 215000096<br>216000159<br>E<br>egin Mile<br>1<br>2<br>2<br>3<br>3<br>3<br>3.9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | End<br>0<br>8.2<br>12<br>2.6<br>1.2<br>5.6<br>1.2<br>5.8<br>9.8                                                                                                                                                                           | SHA<br>SIS<br>F<br>Mile<br>46.5<br>8.7<br>15.5<br>13.7<br>27.3<br>39.6<br>23.6                                                                                                                                                                                                                                                              | Var<br>Activity<br>Drainage<br>Bridge<br>Major Dan<br>Major Dan<br>Major Dan<br>Mobility -<br>Safety Imp<br>Bridge<br>Bridge<br>Pavement                                                                                                                                                                | G<br>nage - Pe<br>nage - Pe<br>nage - Pe<br>ADA<br>provemen                                                | HM3<br>Var HM3<br>Planning, or_P<br>Planning<br>Post-Planning<br>mane Post-Planning<br>Post-Planning<br>Post-Planning<br>Post-Planning<br>Post-Planning<br>Post-Planning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         
                                                                                                                                                                                             | 2016<br>2018<br>2019<br>2025_27<br>2021_22<br>2030_311<br>2023_24<br>2020_21<br>2019_20<br>2021_22<br>2020_21<br>2019_20<br>2021_22<br>2020_21<br>2019_20<br>2024_25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 42458<br>43413<br>J<br>Cost | 8 HM<br>8 HM<br>8 SB<br>9 Ye<br>438 Ye<br>10075<br>18227<br>10157<br>84989 Ye<br>10009 Ye<br>42560 Ye                                                                                                                                                                                     | Fair<br>Good<br>K<br>1_Priority<br>S<br>S<br>S<br>S<br>S                                         | B<br>7<br>Dist-<br>Por<br>Pro<br>04 Alo<br>0411<br>Con<br>Con                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 8<br>8<br>1 Maio<br>1 Maio                                                                                                                                                                                                                                                                                                                                                                               | Locati<br>Karsional at<br>Markovani<br>Zande (attack<br>elemente retraiti                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | N<br>N<br>N<br>Amoyo De La<br>Ooda.<br>Inditate korige<br>ge roll ungra                                                                                                                                     
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | VA.020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | N<br>N<br>D20 SHOP<br>Alama<br>(\$1,00<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Good<br>Good<br>P Proje<br>ada<br>so)<br>Capital<br>R/W: S<br>Con: S13<br>Viat S13,<br>Project Ca                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Good<br>Good<br>Ct List<br>1 54<br>1500 PAE<br>500 PAE<br>8/W 5<br>500<br>esti                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Codd         Codd           Good         Allor           Approx1         Biol           ED: 11,643         P           Max         33,040           Part         33,040           S2,213         32,2413           11 Bridges Scourt         1 Bridges Scourt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | COS<br>GOOD<br>COS<br>COS<br>COS<br>COS<br>COS<br>COS<br>COS<br>COS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 30         02         0052/H80           31         02         0651/H80           2         20275         3         22305           4         16494         5         21946           5         21946         6         17537           7         16236         8         21446           9         9014         1         16887           10         16687         1         20207           11         202047         1         16414                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B<br>District | 02 0065           02 0066           C           County           1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Rou           | 2<br>D<br>Jte B<br>101<br>101<br>101<br>101<br>101<br>101<br>101<br>10          | 215000096<br>216000159<br>egin Mile<br>1<br>1<br>2<br>2<br>3<br>3<br>3<br>3.9<br>5.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | End 0<br>0<br>3.2<br>12<br>2.6<br>1.2<br>5.6<br>1.2<br>5.8<br>9.8<br>R5.6                                                                                                                                                                 | SHA<br>SIS<br>F<br>Mile<br>46.:<br>8.:<br>15.:<br>15.:<br>13.:<br>27.:<br>39.(<br>39.(<br>39.(<br>39.(<br>35.)                                                                                                                                                                                                                              | Var<br>Activity<br>Drainage<br>Bridge<br>Major Dan<br>Major Dan<br>Major Dan<br>Mobility -<br>Safety Imp<br>Bridge<br>Bridge<br>Pavement<br>Mobility -                                                                                                                                                  | Var N<br>G<br>nage - Pe<br>nage - Pe<br>nage - Pe<br>ADA<br>provemen                                       | HM3 //ar HM3 //ar HM3 Planning, or_P Planning Post-Planning rmane Post-Planning rmane Post-Planning post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning
Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning  | 2016<br>2019<br>2026_27<br>2026_27<br>2021_22<br>2030_31<br>2023_24<br>2020_21<br>2020_21<br>2021_22<br>2020_21<br>2021_22<br>2020_21<br>2021_22<br>2020_21<br>2021_22<br>2020_21<br>2021_22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 42458<br>43413<br>J<br>Cost | HM<br>HM<br>SB<br>Ye<br>438 Ye<br>10075<br>18227<br>10157<br>84989 Ye<br>10009 Ye<br>42560 Ye<br>4235                                                                                                                                                                                     | Fair<br>Good<br>K<br>1_Priority<br>S<br>S<br>S<br>S<br>S                                         | B<br>7<br>Dist-<br>Pay<br>Proj<br>Ostavio<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Carno<br>Car | Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste<br>Sourceste                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Locotie<br>Hear Sunci, at<br>Indige No. 33-3<br>Englisher, Alexan<br>Hiligation, bric<br>eleansic netholit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | N<br>N<br>N<br>Arroyo De Lo<br>2043.<br>Arroyo                                                                                                                          | VA     V4.0 20     V4.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | N<br>N<br>220 SHOP<br>Alama<br>(\$1,00<br>0,0550<br>0021-22<br>Suble<br>Total<br>Pre<br>the Unit<br>5.0 Square 10<br>0 Square 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Good<br>Good<br>P Project<br>da<br>Son<br>Copilal<br>R/W: 1<br>Con: \$13<br>Project Co<br>Prog<br>ject Output                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Good<br>Good<br>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Cod<br>Good<br>Line 2000<br>Line 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>Social 2000<br>S                                                                                                                                                                                                                                                   | CS<br>cod<br>continue<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compared<br>compo                                                                                                                                                                                                    | N/A<br>N/A<br>N/A<br>N/A<br>Restones<br>Co. 100/2020<br>Co. 10/2020<br>Co. 41/2022<br>The 41/2022                                                                                                                                                                                                                                                                                                                                                                                                                
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 30         02         00652H800           31         02         06651H950           4         1         SHOPP ID           2         20275         3           4         16494         5           5         21946         6           6         17537         7           7         16236         8           9         9014         10           10         16687         11           12         16414         13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B<br>District | 22 0065<br>32 0066<br>County<br>1 Del Norte<br>1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | N/A Rou       | 2<br>2<br>D<br>101<br>101<br>101<br>101<br>101<br>101<br>101                    | 21600096<br>216000159<br>E<br>egin Mile<br>1<br>2<br>2<br>3<br>3<br>3<br>3.9<br>5.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | End 0<br>End 0<br>8.2<br>12<br>2.6<br>1.2<br>5.6<br>1.2<br>5.8<br>9.8<br>R5.6                                                                                                                                                             | SHA<br>SIS<br>F<br>Mile<br>46.:<br>8.:<br>15.:<br>13.:<br>27.:<br>39.:<br>39.:<br>36.:<br>23.:<br>5                                                                                                                                                                                                                                         | Var<br>Activity<br>Drainage<br>Bridge<br>Major Dan<br>Major Dan<br>Major Dan<br>Mobility -<br>Safety Imp<br>Bridge<br>Bridge<br>Pavement<br>Mobility -<br>Drainage                                                                                                                                      | G<br>G<br>nage - Pe<br>nage - Pe<br>nage - Pe<br>ADA<br>provement<br>Operatio                              | HM3 //ar HM3 //ar HM3 Planning.or_P Planning Post-Planning rmane Post-Planning rmane Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning
Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning P | 2016<br>2018<br>2015<br>2026_27<br>2021_22<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2024_25<br>2021_22<br>2020_21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 42458<br>43413<br>Cost      | HM<br>SB<br>Ye<br>438 Ye<br>10075<br>18227<br>10157<br>84989 Ye<br>10009 Ye<br>42560 Ye<br>4235<br>3910 Ye                                                                                                                                                                                | Fair<br>Good<br>K<br>1_Priority<br>S<br>S<br>S<br>S<br>S<br>S                                    | 2<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Co-Stee<br>f Mae<br>read D<br>D/D4 c<br>D/D4 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/D5 c<br>D/ | 7<br>7<br>7<br>Near Sunci of<br>Near Sunci of<br>Near Sunci of<br>Near Sunci of Sunci<br>Near Sunci of Sunci<br>Near Sunci of Sunci<br>Sunci of Sunci of Sunci<br>Sunci of Sunci of Sunci<br>Sunci of Sunci of Sunci<br>Sunci of Sunci of Sunci of Sunci<br>Sunci of Sunci of Sunci of Sunci<br>Sunci of Sunci of Sunci of Sunci of Sunci<br>Sunci of Sunci of Sunci of Sunci of Sunci<br>Sunci of Sunci                                                                                                                                                                                                                                                                   
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | N<br>N<br>N<br>Ancyo De La<br>Data<br>Ancyo De La<br>Data<br>Inter Here<br>Age rail upgra<br>de la Li,77<br>o co<br>addition Eato                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | N/A           V4.0 20           m         Pr           Laguna         For social           de and         11,77           5.0         11,77           22,010         000000000000000000000000000000000000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | N<br>N<br>200 SHOP<br>Alama<br>(\$1,00<br>C<br>CA<br>cog Year<br>OJ850<br>OD21-22<br>Subto<br>Total<br>Free<br>Bite Unit<br>S0 Square F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Good<br>Good<br>P Projector<br>Copilat<br>R/W: 1<br>Con: \$13<br>Project Co<br>Prog<br>piect Output                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Good<br>Good<br>cct List<br>500 PAS<br>500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Cood         Cood           gpport         Alter           LD: 11.663         P           Virus: 13.600         P           39.22.813         S9.213           11 Bridge Scourt         1 Wridge(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Fair<br>Good<br>Contention<br>PY PALE<br>RVV Ca<br>RVV Ca<br>RVV Ca<br>RVV Ca<br>RVV Ca<br>RVV Ca<br>RVV Ca                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | N/A<br>N/A<br>N/A<br>Advance<br>Bostones<br>Do: 10/1/2020<br>Do: 10/1/2020<br>D                                                                                                                                                                                                                
                                                                                                                                                                                                                               |
| 30         02         0052/H80           31         02         0052/H80           4         0         0         0           2         20275         3         22305           4         16494         6         17337           7         16236         8         21446           9         9011         0         16887           10         16887         11         202047           12         16414         13         21431                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B<br>District | 2 0065<br>20 0065<br>20 0067<br>County<br>1 Del Norte<br>1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | N/A Rou       | 2<br>2<br>D<br>Ite B<br>101<br>101<br>101<br>101<br>101<br>101<br>101<br>10     | 21600096<br>21600059<br>eggin Mile<br>1<br>2<br>2<br>2<br>3<br>3<br>3.9<br>5.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | End 0<br>0<br>3.2<br>12<br>2.6<br>1.2<br>5.8<br>9.8<br>R5.6<br>1.1                                                                                                                                                                        | SHA<br>SIS<br>F<br>46.5<br>8.7<br>15.5<br>13.7<br>27.5<br>39.6<br>36.5<br>23.6<br>5                                                                                                                                                                                                                                                         | Var<br>Activity<br>Drainage<br>Bridge<br>Major Dan<br>Major Dan<br>Major Dan<br>Mobility -<br>Safety Imp<br>Bridge<br>Bridge<br>Pavement<br>Mobility -<br>Drainage                                                                                                                                      | Var V<br>G<br>nage - Pe<br>nage - Pe<br>ADA<br>orovemen<br>Operatio                                        | HM3 //ar HM3 //ar HM3 Planning, or_P Planning Post-Planning rmane Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning
Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-P | 2016<br>2018<br>2019<br>2025_27<br>2021_22<br>2030_31<br>2023_24<br>2020_21<br>2019_20<br>2021_22<br>2020_21<br>2019_20<br>2024_25<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_210<br>2020_210<br>2020_210<br>2020_210<br>2020_210<br>2020_210<br>2020_20000000000                                                                                                                                                                                                                                                                                           | 42458<br>43413<br>J<br>Cost | HM<br>SB<br>Ye<br>438 Ye<br>10075<br>18227<br>10157<br>84989 Ye<br>10009 Ye<br>42560 Ye<br>42560 Ye                                                                                                                                                                                       | Fair<br><u>Good</u><br><u>K</u><br><u>1</u> -Priority<br>S<br>S<br>S<br>S<br>S<br>S<br>S         | 8<br>7<br>7<br>0 A A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0 A Ma<br>0                                                                                                                                                           | 8         Co-Step           1 Mile         Mile           well ID         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         2000012           9         200012                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 7<br>7<br>7<br>16 or Sunol, of<br>16 or Sunol, of<br>16 or Sunol, of<br>16 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10
or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Sunol<br>10 or Suno                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | N<br>N<br>N<br>Arroyo De Lo<br>2043.<br>Ge roll upgro<br>de Logo<br>de Logo    | V4.0 20<br>v4.0                                                                                                                                                                    | N<br>N<br>D20 SHOP<br>Alama<br>(\$1.00<br>0.0550<br>0021-22<br>Suble<br>Total<br>Pre                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Good<br>Good<br>P Proje<br>eda<br>wo<br>Copiled<br>R/W: 3<br>Con: 313<br>Project Co<br>Prog<br>eda<br>stat 313<br>Project Co                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Good<br>Good<br>cct List<br>500 PAS<br>500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      
                                                                                                                                                                                                                                                                                                                    | Cood<br>Good<br>Good<br>Paperot<br>ED: 11,462<br>522,413<br>522,413<br>11 Bridges Scorer<br>1 Bridges Scorer<br>1 Bridges Scorer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | CS<br>cod<br>cod<br>cod<br>cod<br>cod<br>cod<br>cod<br>cod                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | NA<br>NA<br>NA<br>Autome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome<br>Botome |
| 30         02         00652H980           1         02         00651H980           2         202075         3         22305           4         16494         5         21946           5         21946         6         17537           7         16236         8         21446           9         9014         1         202071           11         202071         1         6414           12         16414         13         21413           14         21413         14         21420                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B<br>District | 220065<br>020065<br>020065<br>1201007<br>1 Del Norte<br>1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Rou           | 2<br>2<br>101<br>101<br>101<br>101<br>101<br>101<br>101<br>101<br>101           | 21600096 [<br>216000159]<br>E<br>egin Mile<br>11<br>2<br>2<br>2<br>3<br>3<br>3.9<br>5.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | End<br>0<br>3.2<br>12<br>2.6<br>1.2<br>5.8<br>9.8<br>8.8<br>8.8<br>8.8<br>8.5.6                                                                                                                                                           | SHA<br>SIS<br>F<br>Mile<br>46.:<br>46.:<br>15.:<br>13.:<br>27.:<br>39.(<br>36.:<br>5<br>2.:<br>5<br>2.:<br>36.:<br>36.:                                                                                                                                                                                                                     | Var<br>Activity<br>Drainage<br>Bridge<br>Major Dan<br>Major Dan<br>Major Dan<br>Mobility -<br>Safety Imp<br>Bridge<br>Bridge<br>Pavement<br>Mobility -<br>Drainage<br>Drainage                                                                                                                          | G<br>nage - Pe<br>nage - Pe<br>ADA<br>orovemen                                                             | HM3 //ar HM3 //ar HM3 Planning, or_P Planning Post-Planning rmane Post-Planning post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning
Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-P | 2016<br>2017<br>2017<br>2026_27<br>2021_22<br>2030_31<br>2023_24<br>2020_21<br>2021_22<br>2020_21<br>2021_22<br>2020_21<br>2024_25<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 42458<br>43413<br>J<br>Cost | HM<br>SB<br>Ye<br>438 Ye<br>10075<br>18227<br>10157<br>84989 Ye<br>10009 Ye<br>42560 Ye<br>4235<br>3910 Ye<br>5092 Ye                                                                                                                                                                     | Fair<br>Good<br>K<br>1_Priority<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S                | 8<br>7<br>7<br>0 Anite<br>10 Anit                                                                                                                                                                                                                                                                                                                                                    | Constant<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode<br>Mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Locate<br>Har Sunci at<br>Infigation. Ma<br>Infigation. Ma<br>I                                                                                                                                                                                                                                                                                                                                                                                                                                                             | N<br>N<br>N<br>Arroyo De Lo<br>043.<br>Bilitate horiga<br>gar cell ungaro<br>data Para<br>la Para<br>data Para<br>da                                                                                                                                                          | V4.0 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         
                                                                                                                                                                        | N<br>N<br>D20 SHOP<br>Alama<br>(31.00<br>0.0550<br>0021-22<br>Suble<br>Total<br>Pre                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Good<br>Good<br>PP Proje<br>ada<br>so)<br>Copilal<br>R/W: 1<br>Con: 513<br>Project Co<br>Preg<br>dect Output                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Good<br>Good<br>Ct List<br>1 St<br>1 S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Cood         Cood           Good         Good           Up all address         Social           Status         Social           Social         Social                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         
                                                                                                                                                                                                      | Pair<br>Good<br>ontion<br>Pr/<br>Boy<br>Strong Pr/<br>Boy<br>Strong Pr/<br>Boy<br>Strong Pr/<br>Boy<br>Strong Pr/<br>Boy<br>Strong Pr/<br>Boy<br>Strong Pr/<br>Boy<br>Strong Pr/<br>Strong                                                                                                                                                                                                                                                                                                                | N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 30         02         00052/H930           31         02         00652/H930           4         04         04           5         220075         3           4         16494         16494           5         21946         17537           7         16236         21446           9         90414         10         16687           10         16687         11         202047           12         16414         13         22413           14         21400         15         17515                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B<br>District | 22 0065           02 0066           02 0067           1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Rou           | 2<br>2<br>2<br>101<br>101<br>101<br>101<br>101<br>101<br>1                      | 216000096 (21000096)<br>216000159 (20000000)<br>eegin Mile<br>1<br>1<br>2<br>2<br>3<br>3<br>3.9<br>5.1<br>1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | End<br>0<br>3.2<br>12<br>2.6<br>1.2<br>5.8<br>9.8<br>8.8<br>8.8<br>8.8<br>8.8<br>8.8<br>8.8<br>8.8<br>8.8<br>8                                                                                                                            | SHA<br>SIS<br>F<br>Mile<br>46.5<br>8.7<br>15.7<br>13.7<br>27.7<br>39.6<br>39.6<br>36.5<br>23.6<br>5<br>2.1<br>36.5<br>10.7                                                                                                                                                                                                                  | Var<br>Activity<br>Drainage<br>Bridge<br>Major Dan<br>Major Dan<br>Major Dan<br>Mobility -<br>Safety Imp<br>Bridge<br>Bridge<br>Pavement<br>Mobility -<br>Drainage<br>Safety Imp                                                                                                                        | Var Y<br>G<br>nage - Pe<br>nage - Pe<br>ADA<br>Operatio                                                    | HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 | 2016<br>2018<br>2015 Adertised Year<br>2026 27<br>2021 22<br>2020 21<br>2023 24<br>2020 21<br>2023 24<br>2020 21<br>2020 21<br>2020 21<br>2024 25<br>2021 22<br>2020 21<br>2020 21<br>2021 20<br>2021
20<br>2021 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 42458<br>43413<br>J<br>Cost | HM           IHM           SB           Ye           438 Ye           10075           18227           10157           84989 Ye           10009 Ye           4235           3910 Ye           5092 Ye           2990                                                                       | Fair<br>Good<br>K<br>1_Priority<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S                          | 2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Location<br>HearSunol, at<br>higgs ho. 32<br>higgs ho. 32<br>higgs ho. 32<br>higgs ho. 32<br>higgs ho. 32<br>higgs ho. 32<br>higgs hours, at<br>higgs hou                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | N<br>N<br>N<br>Amoro De La<br>2043.<br>Initiate horiga<br>gia rail uppro<br>data<br>11,77<br>0.0 0.0<br>condition Past C<br>ordition Past C                                                                                                                                                                                                            
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | V4.0 20<br>v4.0 20<br>v4.0 20<br>resource<br>for social<br>for s                                                                                                                                                                                                                                                                                     | N<br>N<br>220 SHOPP<br>Alam<br>(\$1,00<br>00530<br>0051 22<br>50051 22<br>50051 22<br>Free<br>Bac Bail<br>500 Square 1<br>005310<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>0053104<br>00551004<br>00551004<br>00551000000000000000000000000000000000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Good<br>Good<br>P Project<br>Copilal<br>R/W: 1<br>Con: 513<br>Project Co<br>Prog<br>ject Output                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Good<br>Good<br>Good<br>CTLIST<br>Con 3<br>SCO<br>PALS<br>Con 3<br>SCO<br>SCO<br>SCO<br>SCO<br>SCO<br>SCO<br>SCO<br>SCO<br>SCO<br>SCO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Cood         Cood           Good         Alloc           Alloc         Status           Status         Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | COS<br>continen<br>PALE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SCHOCE<br>SC                                                                                                                                                                                                                                                                                                                                                                               | N/A<br>N/A<br>N/A<br>Bit stores<br>Bit stores<br>bit 2/1/2000<br>bit 11/2000<br>bit 11/2000<br>bit 2/1/2000<br>bit 11/2000<br>bit 2/1/2000<br>bit 11/2000<br>bit 2/1/2000<br>bit 11/2000<br>bit                                                                                                                                                                                                                                                                                                                                                                            |
| 30         02         00652/H890           1         02         00651/H890           2         202075         3         22305           4         16494         5         21944           5         21944         6         17537           7         16236         8         21446           9         9014         100         16887           10         16887         11         202071           11         202047         12         16414           13         21433         14         21401           15         17515         16         21687                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B<br>District | 2 0005<br>2 0005<br>2 0005<br>County<br>1 Del Norte<br>1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Rou           | 2<br>2<br>2<br>101<br>101<br>101<br>101<br>101<br>101<br>1                      | 21600095 21600095 21600095 21600095 21600095 21600095 21600015 21600015 21600015 21600015 21600005 21600005 21600005 21600005 21600005 21600005 21600005 21600005 21600005 21600005 2160005 2160005 2160005 2160005 2160005 2160005 2160005 2160005 2160005 2160005 2160005 2160005 2160005 2160005 2160005 2160005 2160005 2160005 2160005 2160005 216005 2160005 2160005 2160005 2160005 2160005 2160005 2160005 2160005 2160005 2160005 2160005 2160005 2160005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 2160005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 216005 2160005 2160005 2160005 210000005 2160005 21000005 210000005 210000005 2160005 21000000000000000 | End 0<br>5.8<br>5.8<br>8.8<br>8.5.6<br>1.1<br>5.8<br>8.8<br>8.8<br>8.5.6<br>1.1<br>5.3<br>0.2<br>0.7                                                                                                                                      | SHA<br>SIS<br>F<br>Mile<br>46.5<br>8.7<br>13.7<br>27.3<br>39.9<br>36.5<br>23.6<br>5<br>2.6<br>36.3<br>10.0<br>36.400                                                                                                                                                                                                                        | Var<br>Activity<br>Drainage<br>Bridge<br>Major Dan<br>Major Dan<br>Mobility -<br>Safety Imp<br>Bridge<br>Bridge<br>Pavement<br>Mobility -<br>Drainage<br>Safety Imp<br>Pavement                                                                                                                         | Var X<br>G<br>nage - Pe<br>nage - Pe<br>nage - Pe<br>ADA<br>Operatio                                       | HM3 //ar HM3 //ar HM3 Planning, or_P Planning Post-Planning Plants Post-Planning Plants Planning Plants Planning Planting  | 2016<br>2019<br>2025_27<br>2025_27<br>2021_22<br>2030_31<br>2022_24<br>2020_21<br>2019_20<br>2021_22<br>2020_21<br>2019_20<br>2024_25<br>2021_22<br>2020_21<br>2019_20<br>2024_25<br>2021_22<br>2020_21<br>2019_20<br>2019_20<br>2019_20<br>2026_27                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 42458<br>43413<br>J<br>Cost | HM<br>HM<br>SB<br>Ye<br>438 Ye<br>10075<br>18227<br>10157<br>84989 Ye<br>10009 Ye<br>42560 Ye<br>42560 Ye<br>42350 Ye<br>5092 Ye<br>2990<br>Ye                                                                                                                                            | Fair<br>Good<br>K<br>1_Priority<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S                | 8<br>7<br>7<br>0 cist-<br>9 r<br>9 r<br>9 cist<br>0 cist-<br>0 cist<br>0 cist                                                                                                                                                  | 8<br>Constant<br>Web 20<br>Constant<br>Web 20<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constant<br>Constan                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Locatie<br>KearSunol, at<br>bidger Ho. 33<br>mitigation, bri-<br>mitigation, bri-<br>mitigation, bri-<br>mitigation, bri-<br>mitigation, bri-<br>mitigation, bri-<br>mitigation, bri-<br>mitigation, bri-<br>mitigation, bri-<br>mitigation, bri-<br>bidget and bri-<br>bidget and bri-<br>scalar strateging in<br>scalar Sunot, at<br>scalar Scalar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | N<br>N<br>Amoyo De Lo<br>0043.<br>Salanda fareal unago<br>10 11,27<br>10 11,27<br>10 0 00<br>Carriedta Paste<br>Carriedta                                                                                                                                                                                                                                                                                                                                                                                           | VA.0 20<br>V4.0 20<br>Loguna<br>for sonue<br>for sonue<br>de and<br>5.0 11.77<br>22.010<br>andtione<br>sonue<br>the Bridge<br>in solding 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | N<br>N<br>1220 SHOP<br>Alama<br>(\$1.00<br>0021-22<br>South<br>Total<br>Pro<br>100<br>5.0 Square
1<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-24<br>0023-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good<br>Good<br>P Proje<br>eda<br>soy<br>Copiled<br>S/W: 5<br>Con: 513<br>Project Co<br>Prog<br>dect Output<br>set<br>set<br>set<br>set<br>set<br>set<br>set<br>set<br>set<br>se                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Good<br>Good<br>Good<br>Ct List<br>Con S<br>Con S<br>Con S<br>Con S<br>Con S<br>Con S<br>Con S<br>Con S<br>Con S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good         C           Good         Good           Allow         Allow           Allow         33.0.0           Port         30.00           Port         90.00           S22.013         11           Residue-I0         11           Provide         30.00           Port         30.00           S22.013         31.45.00           S13.45.00         S13.45.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Pair<br>Good<br>CS<br>CS<br>CS<br>CS<br>CS<br>CS<br>CS<br>CS<br>CS<br>CS<br>CS<br>CS<br>CS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 30         02         0052/H80           31         02         00652/H80           4         04         04           5         22365         22365           6         17537         16236           8         21446         9         9014           10         16887         11         20047           12         16414         21443         14         21441           14         21441         15         17515         16           16         21266         177         21751         16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B<br>District | 02 0005           02 0005           02 0005           County           1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Rou           | 2<br>2<br>2<br>101<br>101<br>101<br>101<br>101<br>101<br>1                      | 21600095 j<br>216000159 j<br>egin Mile<br>1<br>2<br>2<br>3<br>3.9<br>5.1<br>1<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | End 0<br>5.8<br>1.1<br>2.6<br>1.2<br>5.8<br>8.3<br>8.5<br>1.1<br>5.3<br>0.2<br>0.7<br>7.2                                                                                                                                                 | SHA<br>SIS<br>F<br>Mile<br>46.5<br>8.7<br>13.7<br>27.5<br>39.6<br>36.5<br>23.6<br>5<br>2.6<br>36.5<br>2.6<br>36.5<br>2.6<br>36.5<br>2.7<br>36.5<br>2.7<br>36.5<br>2.7<br>36.5<br>2.7<br>36.5<br>2.7<br>3.5<br>2.7<br>3.5<br>3.5<br>3.5<br>3.5<br>3.5<br>3.5<br>3.5<br>3.5                                                                   | Var<br>Activity<br>Drainage<br>Bridge<br>Bridge<br>Major Dan<br>Major Dan<br>Mobility -<br>Safety Imp<br>Bridge<br>Bridge<br>Pavement<br>Mobility -<br>Drainage<br>Safety Imp<br>Pavement<br>Safety Imp                                                                                                 | Var X<br>G<br>nage - Pe<br>nage - Pe<br>nage - Pe<br>ADA<br>Operation<br>Operation                         | HM3 Yar HM3 Yar HM3 Yar HM3 Planning, or, P Planning Post-Planning mmane Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning | 2016<br>2017<br>2026 27<br>2027 22<br>2030 31<br>2023 24<br>2020 21<br>2020 22<br>2020 21<br>2020 22<br>2020 21<br>2020 22<br>2020 22<br>20<br>2020 22<br>20<br>2020 22<br>20<br>2020
22<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>2                                                                                                                                                                                                                                                    | 42458<br>43413<br>J<br>Cost | HM           SB           Ye           438 Ye           10075           18227           10157           84989 Ye           10009 Ye           4235           3910 Ye           5092 Ye           2990           Ye                                                                        | Fair<br>Good<br>K<br>1_Priority<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S                | 8<br>7<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 8<br>Coulter<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Locasti<br>Harr Sunot, at<br>Indige No. 33-<br>Deploy prime<br>Indigetion, bei<br>annex nethall<br>Double Construction<br>Status Construction<br>Harr Sunot, at<br>Sunot Sunot Sunot<br>Harr Sunot, at<br>Sunot Sunot Sunot<br>Harr Sunot, at<br>Sunot Sunot Sunot<br>Harr Sunot, at<br>Sunot Sunot Sunot Sunot<br>Harr Sunot, at<br>Sunot Sunot Sunot Sunot<br>Sunot Sunot Sunot Sunot<br>Sunot Sunot Sunot Sunot Sunot<br>Sunot Sunot Sunot Sunot Sunot<br>Sunot Sunot Sunot Sunot Sunot<br>Sunot Sunot Sunot Sunot Sunot Sunot Sunot<br>Sunot Sunot Sunot Sunot Sunot Sunot Sunot Sunot<br>Sunot Sunot Sunot Sunot Sunot Sunot Sunot Sunot Sunot<br>Sunot Sunot Su                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | N<br>N<br>N<br>Anayo be to<br>body.<br>Anayo be to<br>body.<br>Anayo be to<br>body.<br>Anayo be to<br>body.<br>Anayo be to<br>body.<br>I 1.27<br>I 0.0<br>I 1.27<br>I 0.0<br>I 1.27<br>Control to part<br>Control to the to<br>control to                                                                                                                                                                                                                                                                                                                                                                                                                 | VA<br>V4.0 20<br>v4.0 20<br>tagund<br>tagund<br>to social<br>to  | N<br>N<br>220 SHOP<br>Atamic<br>(\$1,00<br>0,1550<br>0,021-22<br>South<br>Total<br>Pro-<br>Bits: Unit<br>5.0 Square
1<br>0,223-24<br>South<br>Total<br>0,223-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-24<br>South<br>1<br>0,253-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Good<br>Good<br>Copilation<br>Copilation<br>P Project<br>Copilation<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Progetical<br>Pr                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Good<br>Good<br>Good<br>CCTLIST<br>Store<br>State<br>Store<br>State<br>Store<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>State<br>S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Good         Cood           Good         Allor           Approx1         Status           Status         31.66.3           Status         31.66.3           Status         32.66.2           Status         31.66.3           Status         32.66.2           Status         33.66.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Pair<br>Good<br>Scotion<br>PALE<br>SCVC 2<br>SCVC 2     | N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 30         02         0052/H950           31         02         0065/H950           2         20275         3           2         20275         3         222305           4         16494         6         17537           7         16236         8         21446         9         9044           10         16887         11         20247         12         16414           13         221413         14         22047         15         17515         16         22687           17         127515         16         221687         17         21751                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0065<br>B<br>District | 2 2005<br>2 200<br>2 2005<br>2 2005 | Rou           | 2<br>2<br>2<br>101<br>101<br>101<br>101<br>101<br>101<br>1                      | 21600096 i<br>21600159 :<br>E<br>egin Mile<br>1<br>2<br>2<br>2<br>3<br>3<br>3.9<br>5.1<br>1<br>2<br>2<br>2<br>3<br>3.9<br>5.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | End 0<br>3.2<br>1.2<br>5.8<br>8.8<br>8.5.6<br>1.1<br>5.3<br>0.2<br>0.7<br>7.2<br>1.1<br>1.2<br>1.2<br>1.2<br>1.2<br>1.2<br>1.2<br>1                                                                                                       | SHA<br>SIS<br>F<br>46.5<br>8.7<br>15.5<br>13.7<br>27.7<br>39.0<br>36.5<br>23.0<br>5<br>2.0<br>36.5<br>2.0<br>36.400<br>2.7,0                                                                                                                                                                                                                | Var<br>Activity<br>Drainage<br>Bridge<br>Major Dan<br>Major Dan<br>Mobility -<br>Safety Imp<br>Bridge<br>Bridge<br>Pavement<br>Mobility -<br>Drainage<br>Safety Imp<br>Safety Imp<br>Safety Imp<br>Safety Imp<br>Safety Imp                                                                             | Var V<br>G<br>nage - Pe<br>nage - Pe<br>nage - Pe<br>ADA<br>orovemen<br>Operation                          | HM3 //ar HM3 //ar HM3 Planning, or_P Planning Post-Planning rmane Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Planning Planning Planning Post-Planning Planning Planning Post-Planning Planning Planning Post-Planning Planning Planning Post-Planning Planning P | 2016<br>2018<br>2015<br>2026_27<br>2021_22<br>2030_311<br>2023_24<br>2020_21<br>2019_20<br>2021_22<br>2020_21<br>2019_20<br>2024_25<br>2021_22<br>2020_21<br>2019_20<br>2024_25<br>2021_22<br>2020_21<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2026_27<br>2022_23<br>2021_22<br>2021_22<br>2020_21<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2029_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2000_200<br>2000_200<br>2000_200000000000                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 42458<br>43413<br>J<br>Cost | HM<br>HM<br>SB<br>Ye<br>438 Ye<br>10075<br>18227<br>10157<br>84989 Ye<br>10009 Ye<br>42560 Ye<br>4235<br>3910 Ye<br>5092 Ye<br>2990<br>Ye<br>9187                                                                                                                                         | Fair<br>Good<br>K<br>1_Priority<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S                | 5<br>7<br>7<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9                                                                                                                                                                                                                            
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 8         6           500         100           100         100           100         100           100         100           100         100           100         100           100         100           100         100           100         100           100         100           100         100           100         100           1000         100           1000         100           1000         100           1000         1000           10000025         100           10000025         100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Locati<br>Nacional di<br>Nacional di<br>Nacional di<br>Nacional di<br>Nacional di<br>Nacional di<br>Nacional di<br>Nacional di<br>Canadi<br>Nacional di<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto<br>Sancto | N<br>N<br>Arroyo De La<br>Odda<br>Jage roll ungero<br>dige roll ungero<br>d                                                                                                                                                                                                                                                                                                                                                                                                                   | A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A 
   A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A     A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | N<br>N<br>1220 SHOP<br>Alama<br>(\$1,00<br>00550<br>0021-22<br>Sobel<br>Total<br>Pro<br>100<br>50 Sauare F<br>00550<br>Sauare F<br>1000<br>Sauare S<br>Sobel<br>Sauare S<br>Sobel<br>Sauare S<br>Sauare S<br>Sauare S<br>Sobel<br>Sauare S<br>Sauare                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Good<br>Good<br>P Proje<br>eda<br>eda<br>con:<br>Sia<br>con: Sia<br>con: Sia<br>con: Sia<br>Project Co<br>Prog<br>etert Output                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Good<br>Good<br>Good<br>CT List<br>Soco PAS<br>Soco PA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Good         C           Good         Allist           Allist         31,843           Market         31,843           Market         31,843           Syz,a13         59,213           Syz,a13         59,213           Syz,a13         522,243           Syz,a13         522,243           Syz,a13         522,243           Syz,a14         11 Bridges Scourt           Syz,a15         512,454           Siz,454         512,454           Siz,454         512,454                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            
                                                                                                                                                                                                                                                                                                                                                                  | Pair<br>Good<br>Setion<br>PAAS<br>Setion<br>R/W Co<br>Setion<br>R/W Co<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>Setion<br>S | N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 30         02         0052/H80           31         02         00651/H80           4         0         0         0           2         20275         3         22305           4         16494         5         21946           5         21946         6         17537           7         16236         8         21446           9         9014         10         16837           10         16837         11         202075           11         20207         16414         13         21443           14         21401         15         17515         17515           16         21687         17         21751         18         16443                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0066<br>B<br>District | 2 0005<br>2 0005<br>3 0005<br>County<br>1 Del Norte<br>1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Rou           | 2<br>2<br>2<br>101<br>101<br>101<br>101<br>101<br>101<br>101<br>101<br>10       | 216000195  <br>216000159  <br>E<br>egin Mile<br>1<br>2<br>2<br>3<br>3<br>3<br>3<br>5.1<br>1<br>22<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | HH080 1<br>HH950 2<br>End<br>0<br>3.2<br>2.6<br>1.2<br>5.8<br>3.8<br>4<br>5.8<br>3.8<br>8<br>5.8<br>5.8<br>8<br>.8<br>6<br>.1.1<br>5.3<br>7.2<br>3.1<br>2<br>2.0<br>7.2<br>3.1                                                            | SHA<br>SIS<br>F<br>Mile<br>46.5<br>8.7<br>13.7<br>27.3<br>39.0<br>39.0<br>39.0<br>39.0<br>27.0<br>36.0<br>36.0<br>36.0<br>36.0<br>36.0<br>27.0<br>36.0<br>27.0<br>36.0<br>27.0<br>36.0<br>27.0<br>36.0<br>27.0<br>36.0<br>27.0<br>36.0<br>36.0<br>37.0<br>37.0<br>37.0<br>37.0<br>37.0<br>37.0<br>37.0<br>37                                | Var<br>Activity<br>Drainage<br>Bridge<br>Major Dan<br>Major Dan<br>Mobility -<br>Safety Imp<br>Bridge<br>Pavement<br>Mobility -<br>Drainage<br>Drainage<br>Safety Imp<br>Pavement<br>Safety Imp<br>Facilities                                                                                           | Var V<br>G<br>nage - Pe<br>nage - Pe<br>nage - Pe<br>ADA<br>rovemen<br>Operatio                            | HM3 //ar HM3 //ar HM3 Planning, or_P Planning Post-Planning  2016<br>2018<br>2025_27<br>2025_27<br>2021_22<br>2030_31<br>2023_24<br>2020_21<br>2019_20<br>2021_22<br>2020_21<br>2020_21<br>2021_22<br>2020_21<br>2024_25<br>2021_22<br>2020_21<br>2024_25<br>2021_22<br>2020_21<br>2019_20<br>2024_25<br>2021_22<br>2026_27<br>2022_23<br>2022_23<br>2021_22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 42458<br>43413<br>J<br>Cost | HM           HM           SB           Yee           438 Yee           10075           18227           10157           84989 Yee           10009 Yee           42560 Yee           4235           3910 Yee           5092 Yee           2990           Yee           81187                | Fair of K<br>K<br>1_Priority<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5    | 8<br>7<br>7<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Locasti<br>Hard Sundi at<br>Indige No. 33-3<br>explans / Indian<br>entropy of the sundi-<br>entropy of the sundi-<br>net sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sundi-<br>sund 
     | N<br>N<br>N<br>Arroyo De La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Deta La<br>Det | A Country<br>for provide and the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the angle of the an                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | N<br>N<br>1220 SHOP<br>Alarma<br>(\$1.00<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Good<br>Good<br>P
Proje<br>edd<br>edd<br>copilat<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilat<br>Sol<br>Copilato | Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood<br>Cood                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Cood         Cood           gopot         Alter           gopot         State                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
Pair<br>Good<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Continue<br>Co                                                                                                                                                                                                    | N/A<br>N/A<br>N/A<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coffeener<br>Coff                                                                                                                                                                                                                                                                     |
| 30         02         00052/H950           31         02         00652/H950           2         20275         3           3         22305         4         16544           4         16544         16546         6         17537           7         16236         8         21446         6         17537         7         16236         8         21446         9         9041         10         16887         11         20047         12         16411         13         21411         13         21411         13         21411         13         21411         13         21411         13         21411         13         21411         13         21411         13         21411         14         21401         15         17515         16         21687         17         21751         16         16443         19         21845         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0065<br>B<br>District | 2 2005<br>22 005<br>22 005<br>County<br>1 Del Norte<br>1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Rou           | 2<br>2<br>0<br>101<br>101<br>101<br>101<br>101<br>101<br>1                      | 215000096 i<br>215000159 ;<br>egin Mile<br>1<br>2<br>2<br>2<br>3<br>3<br>3.9<br>5.1<br>1<br>2<br>2<br>2<br>2<br>2<br>2<br>3<br>3<br>3.9<br>5.1<br>1<br>2<br>2<br>2<br>2<br>3<br>3<br>3.9<br>5.1<br>2<br>2<br>2<br>2<br>2<br>3<br>3<br>3.9<br>5.1<br>2<br>2<br>2<br>2<br>3<br>3.3<br>3.3<br>3.3<br>3.5<br>3.5<br>3.5<br>3.5<br>3.5<br>3.5<br>3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | End 0<br>5.8<br>8.8<br>8.5<br>8.8<br>8.5<br>8.5<br>8.5<br>8.5                                                                                                                                                                             | SHA<br>SIS<br>F<br>Mile<br>46.:<br>8<br>15.:<br>15.:<br>15.:<br>27.:<br>39.:<br>36.:<br>23.:<br>5<br>23.:<br>5<br>23.:<br>5<br>23.:<br>36.:<br>23.:<br>36.:<br>23.:<br>36.:<br>23.:<br>36.:<br>36.:<br>36.:<br>36.:<br>36.:<br>37.:<br>37.:<br>37.:<br>37.:<br>37.:<br>37.:<br>37.:<br>37                                                   | Var<br>Activity<br>Drainage<br>Bridge<br>Major Dan<br>Major Dan<br>Mobility -<br>Bridge<br>Bridge<br>Bridge<br>Bridge<br>Bridge<br>Drainage<br>Safety Imy<br>Pavement<br>Safety Imy<br>Facilities<br>Major Dan                                                                                          | Var X<br>G<br>nage - Pe<br>nage - Pe<br>ADA<br>Operatio<br>Operatio                                        | HM3 Var HM3 Var HM3 Var HM3 Var HM3 Var HM3 Var Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Post-Planning Planning Planning Post-Planning Planning Post-Planning Planning Post-Planning Po | 2016<br>2017<br>2026 27<br>2026 27<br>2021 22<br>2020 21<br>2020 22<br>2020 21<br>2020 22<br>2020 21<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2021 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020
22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 22<br>2020 20<br>2020 22<br>2020 20<br>2020 20<br>2000 2000 20<br>2000 2000 2000 20<br>2000 2000 2000 200000000                                           | 42458<br>43413<br>J<br>Cost | HM           HM           SB           Yee           438 Yee           10075           18227           10157           84989 Yee           10009 Yee           42560 Yee           42353           3910 Yee           5092 Yee           2990           Yee           8187           6220 | Fairo<br>Good<br>K<br>1_Priority<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S     | 2<br>7<br>7<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Locatili<br>Vera Sunol, at<br>birgan (n. 53<br>Vilgarion, bir<br>esiancie netrolit<br>0.010.0 0<br>0.010.0 0<br>5.010.0 0<br>5.010.0 0<br>5.010.0 0<br>5.010.0 0<br>5.010.0 0<br>5.010.0 0<br>5.010.0 0<br>5.010.0 0<br>5.000.0 0<br>5.0000.0 0<br>5.0000.0 0<br>5.000.0 0<br>5.0                                                                                                                                                                                                                                                          | N<br>N<br>Amoyo De Lo<br>Odd.<br>Amoyo De Lo<br>Odd.<br>In International<br>Amore and part<br>Amore and part<br>Amore and part                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 
                                                                  | NA<br>N/A<br>V4.0 20<br>Deguna<br>de and<br>de and<br>a <u>Deguna</u><br>de and<br>a <u>Deguna</u><br>de and<br>a <u>Deguna</u><br>de and<br>a <u>Deguna</u><br>de and<br>a <u>Deguna</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | N<br>N<br>220 SHOP<br>Alama<br>(\$1,00<br>00500<br>20<br>Souther<br>Total<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pro-<br>Pr                                                                                                                                                                                                                                                                                                                                                                                                                      | Good<br>Good<br>P Proje<br>Edd<br>Control<br>R/W 3<br>Control<br>R/W 3<br>Control<br>Sizer Output<br>edd<br>Project Output<br>edd<br>Sizer 37<br>Project Coup                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Cood         Cood           Good         Cood           Loco         PAA           Loco         PAA </td <td>Good         Cood           Good         Alter           Attract         Stand           Stand         Stand</td> <td>CS COOL<br/>CS CS td>
<td>N/A<br/>N/A<br/>N/A<br/>Ecology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>technology<br/>te</td>                                                                                                                                                                                                                                                | Good         Cood           Good         Alter           Attract         Stand           Stand         Stand                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | CS COOL<br>CS CS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
N/A<br>N/A<br>N/A<br>Ecology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>technology<br>te                                                                                                                                                                                                                                                                                                                           |
| 30         02         00052/H980           31         02         00651/H980           3         2         20075           3         2         20075           3         2         20075           4         16494         16494           6         17537         7         16236           8         221446         9         9014           10         16887         11         202047           12         16414         13         221413           14         221687         17515         16         22687           17         215413         16443         19         221845           20         164242         20         164243         19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0065<br>B<br>District | 2 2005<br>2 200<br>2 2005<br>2 2005 | Rou           | 2<br>2<br>D<br>101<br>101<br>101<br>101<br>101<br>101<br>101                    | 216000096 i<br>216000159 i<br>egin Mile<br>1<br>2<br>2<br>2<br>3<br>3<br>3.9<br>5.1<br>1<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>3<br>3<br>3.9<br>5.1<br>2<br>2<br>2<br>2<br>3<br>3<br>3<br>3.9<br>5.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | HOBO 1<br>HIJSO 2<br>End<br>0<br>3.2<br>2.6<br>1.2<br>2.6<br>1.2<br>5.8<br>9.8<br>8.5.8<br>9.8<br>8.5.8<br>9.8<br>8.5.8<br>1.1<br>5.3<br>0.2<br>0.7<br>7.2<br>3.1<br>3.5<br>3.5                                                           | SHA<br>SIS<br>F<br>Mile<br>46.5<br>13.7<br>15.5<br>13.7<br>27.7<br>39.0<br>36.9<br>23.0<br>5<br>2.0<br>36.9<br>2.0<br>36.9<br>2.0<br>36.9<br>2.0<br>36.9<br>2.0<br>36.9<br>2.0<br>3.0<br>3.0<br>3.0<br>3.0<br>3.0<br>3.0<br>3.0<br>3.0<br>3.0<br>3                                                                                          | Var<br>Activity<br>Drainage<br>Bridge<br>Major Dan<br>Major Dan<br>Mobility -<br>Safety Img<br>Pavement<br>Drainage<br>Drainage<br>Safety Img<br>Safety Img | Var V<br>G<br>nage - Pe<br>nage - Pe<br>nage - Pe<br>ADA<br>orovemen<br>orovemen<br>orovemen<br>nage - Err | HM3 //ar HM3 //ar HM3 Planning, or_P Planning Post-Planning Planning P | 2016<br>2018<br>2012<br>2026_27<br>2021_22<br>2030_311<br>2023_24<br>2020_21<br>2019_20<br>2021_22<br>2020_21<br>2019_20<br>2024_25<br>2021_22<br>2020_21<br>2019_20<br>2019_20<br>2026_27<br>2022_23<br>2021_22<br>2021_22<br>2021_22<br>2021_22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 42458<br>43413<br>J<br>Cost | HM<br>HM<br>SB<br>Ye<br>438 Ye<br>438 Ye<br>438 Ye<br>100075<br>18227<br>10157<br>10157<br>10157<br>10157<br>10157<br>24250 Ye<br>4256 Ye<br>4250 Ye<br>2990<br>Ye<br>8187<br>6220<br>4685                                                                                                | Fair<br>Good<br>K<br>1_Priority<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S                     | 8<br>7<br>7<br>8<br>8<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Locate<br>Hear Sunct, at<br>hidge fro. 33-<br>hidge fro. 34-<br>hidge from the<br>hidge from the                                                                                                                                                                                                                                                                                                                                                                                                                                                                | N<br>N<br>Arroyo De Lo<br>2043.<br>Allotate burger<br>fige roll unger<br>fige roll unger<br>fige roll unger<br>Control and the second<br>figer roll unger<br>Control and the second<br>Control an                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | N/A<br>V4.0.20<br>m Pro<br>Logono<br>4.0 2000<br>10,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000<br>11,000                                                                                                              | N<br>220 SHOP<br>Alama<br>(31 oc<br>CA<br>CA<br>CA<br>CA<br>CA<br>CA<br>CA<br>CA<br>CA<br>CA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Good<br>Good<br>-P Proje<br>ada<br>2000<br>-Project<br>Con S13<br>-Project Co<br>Prog<br>Project Co<br>Prog<br>Project Co<br>Prog<br>Project Co<br>Prog                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Cood         Cood           Good         Cood           L         Score           Score         PAL           Coone         PAL           Coone <td>Cood         Cood           Good         Aller           Sport         Aller           Sport         Sport           Sport         Sport</td> <td>Pair<br/>Good<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>Contention<br/>C</td> <td>N/A<br/>N/A<br/>N/A<br/>N/A<br/>N/A<br/>N/A<br/>N/A<br/>N/A<br/>N/A<br/>N/A</td> | Cood         Cood           Good         Aller           Sport         Aller           Sport         Sport                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Pair<br>Good<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>Contention<br>C                                                                                                                                                                                                                                                                                                                               | N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 30         02         0052/H690           31         02         00652/H690           4         1         5         2100           3         22305         3         22305           5         21946         6         17537           7         10236         8         21445           9         9014         10         16887           10         16887         11         20247           12         16414         21413         14         22401           15         17515         16         22647         16         22647           18         16443         19         21045         20         16424           20         16424         12         20265         16         16           21         20268         21         20268         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16 <th1< td=""><td>02.0065<br/>02.0065<br/>B<br/>District</td><td>220055<br/>020056<br/>County<br/>1 Del Norte<br/>1 Del Norte</td><td>Rou</td><td>2<br/>2<br/>D<br/>101<br/>101<br/>101<br/>101<br/>101<br/>101<br/>101</td><td>21600095 j<br/>216000159 j<br/>E<br/>egin Mile<br/>1<br/>2<br/>2<br/>3<br/>3.9<br/>5.1<br/>1<br/>22<br/>2<br/>2<br/>3<br/>3.9<br/>5.1<br/>2<br/>2<br/>2<br/>2<br/>3<br/>3<br/>3.9<br/>5.1</td><td>HH080 1<br/>HH950 2<br/>End<br/>0<br/>3.2<br/>12<br/>2.6<br/>1.2<br/>5.8<br/>9.8<br/>8.5<br/>8.8<br/>8.8<br/>8.8<br/>8.8<br/>8.8<br/>8.8<br/>8.8<br/>8.8<br/>8</td><td>SHA<br/>SIS<br/>F<br/>Mile<br/>46.5<br/>15.5<br/>13.5<br/>39.0<br/>39.0<br/>39.0<br/>39.0<br/>39.0<br/>39.0<br/>39.0<br/>39.0</td><td>Var<br/>Activity<br/>Drainage<br/>Bridge<br/>Major Dan<br/>Mobility -<br/>Safety Imy<br/>Bridge<br/>Bridge<br/>Pavement<br/>Mobility -<br/>Drainage<br/>Safety Imy<br/>Facilities<br/>Major Dan<br/>Safety Imy<br/>Facilities<br/>Safety Imy<br/>Facilities<br/>Safety Drainage</td><td>Var 1<br/>G<br/>nage - Pe<br/>nage - Pe<br/>ADA<br/>orovemen<br/>orovemen<br/>nage - Em</td><td>HM3 //ar HM3 /td><td>2016<br/>2017<br/>2026_27<br/>2027_22<br/>2030_31<br/>2023_24<br/>2020_21<br/>2021_22<br/>2020_21<br/>2021_22<br/>2020_21<br/>2019_20<br/>2024_25<br/>2020_21<br/>2019_20<br/>2019_20<br/>2019_20<br/>2019_20<br/>2019_20<br/>2019_20<br/>2019_20<br/>2019_20<br/>2020_21<br/>2020_21<br/>2020_21</td><td>42458<br/>43413<br/>J<br/>Cost</td><td>HM<br/>HM<br/>SB<br/>Ye<br/>438 Ye<br/>438 Ye<br/>10075<br/>18227<br/>10157<br/>84989 Ye<br/>42560 Ye<br/>Ye<br/>8187<br/>6220<br/>Ye<br/>8187<br/>6220<br/>Ye</td><td>Fair<br/>Good<br/>K<br/>1_Priority<br/>5<br/>5<br/>5<br/>5<br/>5<br/>5<br/>5<br/>5<br/>5<br/>5<br/>5<br/>5<br/>5</td><td>2<br/>7<br/>7<br/>7<br/>7<br/>7<br/>7<br/>7<br/>7<br/>7<br/>7<br/>7<br/>7<br/>7</td><td>Constitution         Constitution           Processing         Constitution</td><td>Locati<br/>Sear Sund, at<br/>bage (e.g. 30-<br/>any search of the super-<br/>elements retrain<br/><u>Search of the super-</u><br/>Count<br/>New Sund, at the<br/>explanation of the<br/>search of the super-<br/>count of the<br/>search of the super-<br/>super-super-super-<br/>super-super-super-super-super-<br/>super-super-super-super-super-super-super-<br/>super-super-super-super-super-super-super-<br/>super-super-super-super-super-super-super-super-<br/>super-super-super-super-super-super-super-super-super-<br/>super-super-super-super-super-super-super-super-super-super-super-super-<br/>super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super</td><td>N N<br/>N<br/>Arroyo De Lo<br/>2043.<br/>Sige roll ungra<br/>de roll ungra<br/>to transfer of the second<br/>transfer of the second<br/>transfer of the second<br/>condition Past C<br/>C<br/>C<br/>Alarmada Characa endigate<br/>atta Past</td><td>(VA     (VA     (VA</td><td>N<br/>N<br/>N<br/>C(3) OC<br/>C(3) OC<br/>C(3) OC<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>No<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>South<br/>Total<br/>Pro-<br/>So</td><td>Good<br/>Good<br/>P Project<br/>add<br/>00<br/>Compilation<br/>R/W 3<br/>Com 512<br/>Com 512<br/>Freiget Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register
Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Compilation<br/>Register Com</td><td>Cood         Solution           Good         A           Good         A           Solution         PAL           Mark         Solution           Mark         Solution           Solution         PAL           Mark         Solution           Mark         Solution</td><td>Cood         Cood           gopot         Alter           uppet         522,012           31,640         2           92,021         323,02           92,021         323,02           92,021         323,02           92,021         323,02           92,021         323,02           92,021         323,02           11         Brokgan (L)           93,040         223,02           93,046         233,02           93,046         233,02           93,3466         31,466           11         Brokgan (L)           12         Brokgan (L)</td><td>Pair<br/>Good<br/>Content of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the secon</td><td>N/A<br/>N/A<br/>N/A<br/>N/A<br/>Define<br/>to 10/1/2000<br/>to 10/1/</td></th1<> | 02.0065<br>02.0065<br>B<br>District | 220055<br>020056<br>County<br>1 Del Norte<br>1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Rou           | 2<br>2<br>D<br>101<br>101<br>101<br>101<br>101<br>101<br>101                    | 21600095 j<br>216000159 j<br>E<br>egin Mile<br>1<br>2<br>2<br>3<br>3.9<br>5.1<br>1<br>22<br>2<br>2<br>3<br>3.9<br>5.1<br>2<br>2<br>2<br>2<br>3<br>3<br>3.9<br>5.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | HH080 1<br>HH950 2<br>End<br>0<br>3.2<br>12<br>2.6<br>1.2<br>5.8<br>9.8<br>8.5<br>8.8<br>8.8<br>8.8<br>8.8<br>8.8<br>8.8<br>8.8<br>8.8<br>8                                                                                               | SHA<br>SIS<br>F<br>Mile<br>46.5<br>15.5<br>13.5<br>39.0<br>39.0<br>39.0<br>39.0<br>39.0<br>39.0<br>39.0<br>39.0                                                                                                                                                                                                                             | Var<br>Activity<br>Drainage<br>Bridge<br>Major Dan<br>Mobility -<br>Safety Imy<br>Bridge<br>Bridge<br>Pavement<br>Mobility -<br>Drainage<br>Safety Imy<br>Facilities<br>Major Dan<br>Safety Imy<br>Facilities<br>Safety Imy<br>Facilities<br>Safety Drainage                                            | Var 1<br>G<br>nage - Pe<br>nage - Pe<br>ADA<br>orovemen<br>orovemen<br>nage - Em                           | HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar
HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 | 2016<br>2017<br>2026_27<br>2027_22<br>2030_31<br>2023_24<br>2020_21<br>2021_22<br>2020_21<br>2021_22<br>2020_21<br>2019_20<br>2024_25<br>2020_21<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2019_20<br>2020_21<br>2020_21<br>2020_21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 42458<br>43413<br>J<br>Cost | HM<br>HM<br>SB<br>Ye<br>438 Ye<br>438 Ye<br>10075<br>18227<br>10157<br>84989 Ye<br>42560 Ye<br>Ye<br>8187<br>6220<br>Ye<br>8187<br>6220<br>Ye                                                                                                                                             | Fair<br>Good<br>K<br>1_Priority<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 | 2<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Constitution         Constitution           Processing         Constitution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Locati<br>Sear Sund, at<br>bage (e.g. 30-<br>any search of the super-<br>elements
retrain<br><u>Search of the super-</u><br>Count<br>New Sund, at the<br>explanation of the<br>search of the super-<br>count of the<br>search of the super-<br>super-super-super-<br>super-super-super-super-super-<br>super-super-super-super-super-super-super-<br>super-super-super-super-super-super-super-<br>super-super-super-super-super-super-super-super-<br>super-super-super-super-super-super-super-super-super-<br>super-super-super-super-super-super-super-super-super-super-super-super-<br>super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super-super                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | N N<br>N<br>Arroyo De Lo<br>2043.<br>Sige roll ungra<br>de roll ungra<br>to transfer of the second<br>transfer of the second<br>transfer of the second<br>condition Past C<br>C<br>C<br>Alarmada Characa endigate<br>atta Past                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA     (VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N<br>N<br>N<br>C(3) OC<br>C(3) OC<br>C(3)
OC<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>No<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>South<br>Total<br>Pro-<br>So | Good<br>Good<br>P Project<br>add<br>00<br>Compilation<br>R/W 3<br>Com 512<br>Com 512<br>Freiget Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Compilation<br>Register Com                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Cood         Solution           Good         A           Good         A           Solution         PAL           Mark         Solution           Mark         Solution           Solution         PAL           Mark         Solution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Cood         Cood           gopot 
       Alter           uppet         522,012           31,640         2           92,021         323,02           92,021         323,02           92,021         323,02           92,021         323,02           92,021         323,02           92,021         323,02           11         Brokgan (L)           93,040         223,02           93,046         233,02           93,046         233,02           93,3466         31,466           11         Brokgan (L)           12         Brokgan (L)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Pair<br>Good<br>Content of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the secon                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | N/A<br>N/A<br>N/A<br>N/A<br>Define<br>to 10/1/2000<br>to 10/1/                                                                                                                                                                                                                                                                                                                                                                                                               |
| 30         02         0052/H950           31         02         00652/H950           4         0         0         0           2         20275         3         22305           4         16494         6         17537           7         16236         8         21446           9         9014         10         16687           10         16687         11         20247           11         20247         12         16414           13         21416         21401         15         17515           16         21647         19         21845         16424           19         21845         20         16424         21         20036           20         16424         21         20036         16424         21         20036           20         16424         21         20036         16424         21         20036                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0065<br>B<br>District | 2 2005<br>2 2005<br>2 2005<br>County<br>1 Del Norte<br>1 Del Norte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Rou           | 2<br>2<br>101<br>101<br>101<br>101<br>101<br>101<br>101                         | 21600095 i<br>21600159 i<br>E<br>egin Mile<br>1<br>2<br>2<br>2<br>3<br>3<br>3.9<br>5.1<br>1<br>2<br>2<br>2<br>3<br>3<br>3.9<br>5.1<br>1<br>2<br>2<br>2<br>2<br>3<br>3<br>3.9<br>5.1<br>1<br>2<br>2<br>2<br>2<br>3<br>3<br>3.9<br>5.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | End 0<br>End 0<br>8.2<br>12<br>2.6<br>1.2<br>5.8<br>85.6<br>1.1<br>5.3<br>0.2<br>0<br>0<br>1.1<br>5.3<br>0.2<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                                             | SHA<br>SIS<br>F<br>Mile<br>46.5<br>13.3<br>27.3<br>39.6<br>36.5<br>23.6<br>5<br>23.6<br>5<br>36.5<br>23.6<br>33.5<br>33.4<br>9<br>33.5<br>33.5<br>27.7<br>23.6<br>5<br>23.6<br>5<br>23.6<br>5<br>23.6<br>5<br>23.6<br>5<br>23.6<br>5<br>23.6<br>5<br>23.6<br>5<br>23.6<br>5<br>23.6<br>23.6<br>23.6<br>23.6<br>23.6<br>23.6<br>23.6<br>23.6 | Var<br>Activity<br>Drainage<br>Bridge<br>Bridge<br>Bridge<br>Bridge<br>Bridge<br>Bridge<br>Bridge<br>Drainage<br>Safety Imy<br>Pavement<br>Mobility -<br>Drainage<br>Safety Imy<br>Safety Ing<br>Safety Ing<br>Safety Ing<br>Safety Drainage                                                            | Var V<br>G<br>nage - Pe<br>nage - Pe<br>nage - Pe<br>ADA<br>rovemen<br>Operation<br>orovemen<br>nage - Em  | HM3 Var HM3 Var HM3 Var HM3 Var HM3 Var HM3 Var HM3 Var Var Var Var Var Var Var Var Var Var                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
2016<br>2018<br>2017<br>2026_77<br>2021_22<br>2020_21<br>2023_24<br>2020_21<br>2023_24<br>2020_21<br>2021_22<br>2020_21<br>2024_25<br>2021_22<br>2020_21<br>2025_27<br>2022_23<br>2021_22<br>2025_27<br>2022_23<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22<br>2021_22 | 42458 43413 J Cost          | HM<br>HM<br>SB<br>Ve<br>438 Ye<br>438 Ye<br>10075<br>18227<br>10157<br>10157<br>10157<br>10250 Ye<br>4235<br>10009 Ye<br>2990<br>Ye<br>84887<br>6220<br>4685<br>Ye<br>13878                                                                                                               | Fair<br>Good<br>K<br>1_Priority<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S | 8<br>5<br>7<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 8         6           6         1           1000         1000           1000         1000           1000         1           1000         1           1000         1           1000         1           1000         1           1000         1           1000         1           1000         1           1000         1           1000         1           1000         1           1000         1           1000         1           1000         1           1000         1           1000         1           1000         1           1000         1           1000         1           1000         1           1000         1           1000         1           1000         1           1000         1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Locati<br>Kar Sunct, at<br>bigger (no. 33<br>bigger (no. 34<br>bigger), no. 34<br>bigger), no. 35<br>bigger (no. 34<br>bigger), no. 34<br>big                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N
N<br>N<br>Arroyo De Longo<br>Marine Longo<br>Arroyo De Longo<br>Marine Longo<br>Marine Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control Longo<br>Control L                                                                                                                                                                                                                                                                                                                                           | V4 0 20     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v     v                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | N<br>N<br>Alarmin<br>(3100<br>Souther for the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good<br>Good<br>P Project<br>Solo<br>Solo<br>Solo<br>Solo<br>Solo<br>Solo<br>Solo<br>Sol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Good         Good           Good         Good           List         A           State         State           Jos         A           Jos         State           Jos         PAA           Jos                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Cood         Cood           Good         Good           Alling         Alling           Value         31,364           Status         31,364           Status         32,302           Status         32,302           Status         32,323           Status         32,323           Status         32,323           Status         31,446           Status         31,446           Status         31,446           Status         31,446                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Pair<br>Good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | N/A<br>N/A<br>N/A<br>Ereformer<br>0 10/1/2020<br>10 10/1/2020<br>10 10/1/2020<br>10 10/1/2020<br>10 10/1/2020<br>10 10/1/2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 30         02         0052/H080           31         02         0065/H080           2         20275         3           2         202075         3         22305           4         16494         6         17537           7         16236         8         21446           9         9014         10         16837           10         16637         11         202047           11         202047         12         16414           13         21413         14         214015           16         21687         17         21587           18         16443         19         21845           19         21842         20         16424           20         16424         21         202086           22         16424         21         202086           22         16424         21         202086           22         16424         21         202086           23         24         24333         24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 02 0065<br>02 0065<br>B<br>District | 2 2005<br>2 2005<br>2 2005<br>2 2005<br>2 2005<br>County<br>1 Del Norte<br>1 Del Nor                                                                                                                                                                                                | Rou           | 2<br>2<br>D<br>101<br>101<br>101<br>101<br>101<br>101<br>101                    | 21600095 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 21600159 216000000000000000000000000000000000000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | HOBO 1<br>HH950 3<br>End<br>0<br>0<br>2.6<br>1.2<br>2.6<br>1.2<br>2.6<br>1.2<br>5.8<br>9.8<br>R5.6<br>1.1<br>5.3<br>0.2<br>0.07<br>7.2<br>3.1<br>3.5<br>0<br>0<br>0<br>1.1<br>2.6<br>1.2<br>1.2<br>1.2<br>1.2<br>1.2<br>1.2<br>1.2<br>1.2 | SHA<br>SIS<br>F<br>Mile<br>46.5<br>8.7<br>15.7<br>13.7<br>27.7<br>39.0<br>39.0<br>39.0<br>30.7<br>30.7<br>30.7<br>30.7<br>30.7<br>30.7<br>30.7<br>30                                                                                                                                                                                        | Var<br>Activity<br>Drainage<br>Bridge<br>Major Dan<br>Major Dan<br>Major Dan<br>Major Dan<br>Major Dan<br>Bridge<br>Pavement<br>Mobility -<br>Drainage<br>Safety Imy<br>Pacement<br>Safety Imy<br>Pacement<br>Safety Imy<br>Pacement<br>Safety Imy<br>Pacement<br>Safety Imy<br>Pacement<br>Safety - CC | Var \<br>G<br>nage - Pe<br>nage - Pe<br>ADA<br>Operatic<br>Operatic                                        | HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 //ar HM3 |
2016<br>2018<br>2019<br>2025_27<br>2021_22<br>2030_311<br>2023_24<br>2020_211<br>2019_20<br>2021_22<br>2020_211<br>2019_20<br>2024_25<br>2021_22<br>2020_21<br>2019_20<br>2026_27<br>2022_23<br>2021_22<br>2026_27<br>2022_23<br>2021_22<br>2029_20<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_21<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_21<br>2020_22<br>2020_21<br>2020_22<br>2020_21<br>2020_22<br>2020_21<br>2020_22<br>2020_21<br>2020_22<br>2020_21<br>2020_22<br>2020_21<br>2020_22<br>2020_21<br>2020_22<br>2020_21<br>2020_22<br>2020_21<br>2020_22<br>2020_21<br>2020_22<br>2020_21<br>2020_22<br>2020_21<br>2020_22<br>2020_21<br>2020_22<br>2020_21<br>2020_22<br>2020_22<br>2020_21<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>20200_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>2020_22<br>20200_200000000                                                                             | 42458<br>43413<br>J<br>Cost | HM<br>HM<br>S8<br>Ve<br>438 Ye<br>10075<br>18227<br>10157<br>84398 Ve<br>10009 Ve<br>42560 Ye<br>42560 Ye<br>2950<br>Ye<br>8187<br>6220<br>4685<br>Ye<br>13878                                                                                                                            | Fair<br>Good<br>K<br>1_Priority<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S | 8<br>7<br>7<br>8<br>8<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Coultee         Coultee           Coultee         From           Part Anne         Souther           Souther         Souther                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Locoth<br>Har Sunst at<br>bridge (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No.
33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No. 33-<br>investment)<br>investment (No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | N N<br>N<br>Arroya De Lo Capita<br>Arroya De Lo Capita<br>Marroya De Lo Capita<br>Arroya De Lo Capita                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Image: second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | N<br>N<br>N<br>2023 SHOP<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100<br>(3100)<br>(3100<br>(3100)<br>(3100)<br>(3100<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)<br>(3100)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Good<br>Good<br>P Project<br>eda<br>RXW: 1<br>Project Collect<br>Proget Collect<br>Prog                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Cood         Good           Good         Good           Loss         So           Loss         Factor           Loss         PAE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Good         C           Good         Aller           Aller         31,820           Pool         1,820           Value         3200           Value         33,460           S13,460         Scourt           Value         33,460                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Pair<br>Good<br>ordicon<br>with the second<br>with the second<br>diligation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

Figure 35: Screen capture of the 2019 bridge NEEDs sheet, and 2020 SHOPP projects and report (bottom) used for comparison.





Figure 36: Map of bridge NEEDs and official SHOPP projects used for comparison



The pavement coarse segmentation data set included PaveM treatment recommendations, without specifying the year or the cost. The pavement SHOPP 10year scenario assumed the same 4-year budget of the SHOPP program (\$689 million, \$586 million, \$1,845 million, \$1,387 million), and then assumed a constant budget of \$1,387 million for the remaining years. SHS pavement treatments generated by the optimization algorithm were generally in good agreement with the treatment types produced by PaveM, in spite of the apparent differences in the models and analysis methodology. The treatment types considered in the optimization scenarios were aligned with the types employed by Caltrans for both flexible and rigid pavement. The flexible pavement treatments included thin, medium, and thick overlays, seal coat, cold-in-place recycling, and full depth reclamation. The JPC pavement treatments included grinding, slab replacement, grinding and slab replacement, concrete overlay, and lane replacement. A similar comparison of pavement SHOPP projects and scenario recommendations was also performed for District 4 (Figure 37).

Considering the differences between modeling assumptions in the proposed methodology and the current techniques employed by Caltrans for selecting SHOPP projects, the comparison between scenario results and actual SHOPP projects demonstrated a reasonable level of agreement of project selections. Refining and aligning the modeling assumptions to better reflect Caltrans practices and decision criteria will lead to a higher degree of agreement, leading to more consistent results and optimized project recommendations.





Figure 37: Map of District 4 pavement projects used for comparison



# 11 Example District-Level Cross-Asset Budget Allocation

In addition to the statewide analysis, modeling and planning scenarios were also developed for District 4 bridge and pavement inventory. This was intended to demonstrate a use case for performing district-level lifecycle modeling, planning, and project nomination. Analysis of District 4 bridges and pavements was performed using the same risk-based approach and lifecycle models proposed for statewide analysis. The same treatment models were used as well.

Multiple planning scenarios for District 4 bridges and pavements have been developed. Ten-year scenarios were developed for the district bridge inventory assuming annual investment levels of \$100, \$150, \$200, and \$300 million. Pavement scenarios were also developed assuming annual investment levels of \$75, \$100, \$125, \$150 million. These scenarios were analyzed following the same steps used to analyze statewide inventories. Similar to statewide analysis, while discrepancies were found for bridge treatments, there was a good agreement between pavement treatments recommended by our methodology and those proposed in the current Caltrans program.

For cross-asset budget allocation trade-off analysis, the relative weighting of bridge and pavement asset classes was calculated. Table 6 shows the calculation of the replacement values using age-based and condition-based approaches.

The average annual lifecycle cost for pavement and bridge assets, which is estimated using scenarios to calculate the annual required investment to maintain average status quo condition, was found to be \$220 million and \$1,256 million for District 4 pavement and bridge inventories, respectively. The current depreciated replacement value of bridges and pavement were found to be \$16.38 billion and \$4.9 billion, respectively.

Age-based replacement value was used for estimating relative asset class weights, which was found to be 0.8 and 0.2 for bridge and pavement asset classes, respectively.

Figure 38 shows an example of cross-asset budget allocation trade-off analysis for bridge and pavement assets in District 4.



Asset Class	Avg Life	Avg Condition*	Avg Age	Remaining Life% (Age-based)	Remaining Life % (Condition- based)*	Total Quantity	Unit Cost	As New Value	Replace Value
Bridges	75	38% Good; 54% Fair; 8% Poor	37	51%	71%	52 Million sq. ft	\$635 /Sq. ft	\$33 Billion	\$16.83 Billion (\$23.6 Billion)*
Pavement (AC)	20	23.7% Good; 74.6% Fair; 1.7% Poor	8	60%	72%	4,579 Lane Miles	\$1.002 Million/ Lane Mile	\$4.59 Billion	\$2.75 Billion (\$3.3 Billion)*
Pavement (JPCP)	40	18.1% Good; 71.4% Fair; 10.6% Poor	10	75%	67.5%	1,098 Lane Miles	\$2.6 Million / Lane Mile	\$2.86 billion	\$2.15 Billion (\$1.93 Billion)*

 Table 6. Replacement Value Calculation for District 4 Bridge and Pavement Inventory

\* Calculation based on asset current condition, assuming percentage of remaining life for good, fair, and poor assets to be 85%, 70%, and 20% for good, fair, and poor condition, respectively.





Figure 38: Cross-Asset Budget Allocation Trade-Off Analysis for Bridges and Pavements in District 4.



# 12 Methodology Applicability to Other Asset Classes

In the course of this study, the proposed cross-asset optimization methodology has been applied to SHS bridges and pavements. However, the same methodology can also be applied to other asset types such as culverts, traffic management systems, and other ancillary assets. In fact, over several years, the proposed methodology has already been successfully applied to a range of asset types including municipal, transit, utility, and marine assets. The genericity of the proposed methodology may be explained in the following points:

- 1. The configuration of performance variables, deterioration and risk models can be adapted to support different types of assets with varying levels of data availability. These models can be defined using different statistical distributions for one or multiple groups of assets. The models can also be developed based on the level of data availability. For example, when historical data is available, as in the case of SHS bridges, more detailed deterioration models that consider historical deterioration rates and patterns for different groups of assets can be defined. Also, when asset distress data is available, performance models can be defined to forecast the progression of these distresses and the condition of the assets. However, when detailed inspection or historical data are not available (e.g., in the example of culvert or TMS assets), simple age-based models based on estimated service life can be used. The flexibility of the modeling approach to accommodate different levels of data availability allows wider application of the approach to other asset types.
- 2. Definition of the treatment models are standardized for all asset types. The proposed methodology allows the definition of any number of treatments (or treatment combinations) and associated cost and benefits models. Benefits are defined as incremental improvements to various performance variables. Each treatment can be associated with a set of rules (or constraints) that determines its feasibility. Most of the treatment criteria can be easily captured using these rules. Treatment models are defined using consistent models and format, irrespective of the asset class.
- 3. The multi-objective optimization algorithm is asset-agnostic, and can be applied to any set of assets, associated with any set of treatments. The optimization algorithm was formulated and implemented to require minimal configuration and to automatically adapt to the size of the problem to ensure convergence to an optimal solution within a reasonable timeframe.
- 4. The proposed techniques for CapEx/Opex trade-off, cross-asset budget distribution, and project bundling analyses are applicable to any asset type.
- 5. The programming and budgeting processes apply to projects, irrespective of the impacted types of assets. The same processes for managing program workflows, MODA, project nomination, funding allocation, and tracking of projects, are all applicable to any asset classes.



## 13 Conclusion

TAM programming decision-making is inherently an integrated cross-asset and multiobjective process that requires the assimilation of a multitude of data and models, involving system-level trade-offs to optimize project selections and budget allocations, while considering performance targets and risk levels across all asset classes. This project proposed a novel cross-asset optimization methodology to support Caltrans TAM programming and budgeting decisions and processes across the entire transportation asset portfolio. The proposed methodology integrates Caltrans' project-level MODA model, with cross-asset system-level optimization model that enables optimal development and management of programs and budgets. The application of the methodology has been demonstrated using the Asset Optimizer software tools, which was successfully applied on Caltrans' SHS bridges and pavements.

Based on robust optimization and analysis procedures, the proposed methodology integrated asset-level, system-level, and program-level analyses in a single framework. Combining these multiple types of trade-off analyses was extremely useful in supporting efficient information flow between inter-dependent decision-making processes, and informing decisions on performance target setting, project selection and prioritization, multi-year program development, and budget allocation. Novel techniques have been proposed for selecting optimal treatment types and timing, performance and risk modeling of asset classes, analyzing what-if scenarios, performing capital versus maintenance investment trade-off analysis, optimizing budget distribution among different asset classes, and performing bundling analysis.

The proposed methodology, and associated software tool, would represent a key component in the wider context of supporting agency or statewide asset management processes. Efficient implementation of this methodology would require close integration with other external systems and data sources (e.g., asset registries, project management systems, etc.). Lack of industry-wide data standards, with the exception of NBI and HPMS data, presents a significant challenge for efficient data integration and systems interoperability. Ideally, a system implementing this methodology would serve as "an integrator" that can ingest and process data coming from disparate systems, effectively use the data to enable trade-off analyses and cross-asset optimization, and support managing programs and budgets.

Implementation of the methodology across Caltrans' districts could promote the application of a common framework for analysis and decision-making, thus supporting more consistent processes for performance target setting, projects selection, and funding allocation, and ultimately leading to more consistent management processes, closer coordination and increased transparency. The methodology may also be applied at the level of MPOs and local agencies to support a wider statewide coordination and consistency.



## 14 References

- 1. Caltrans Division of Research and Innovation, "Application of Cross-Asset Optimization in Transportation Asset Management: A Survey of State Practice and Related Research", June 2012.
- 2. Caltrans, SHOPP Pilot Project, "Phase 1: A Framework for Project Prioritization", June 2015.
- 3. Caltrans, "SHOPP Project Prioritization: Application of a Project Prioritization Framework to the 2016 SHOPP", March 2016.
- 4. Robert, W., Gurenich, D., and Hoffman, J., "Asset Management Decision Support System Model," Cambridge Systematics, Inc., http://www.state.nj.us/transportation/about/asset/pdf/final\_dsm.pdf
- 5. The Transportation Asset Management Expert Task Group (TAM ETG), "Defining Cross-Asset Decision Making, A Discussion Paper", http://www.tam-portal.com/wp-content/uploads/2016/01/Cross-Asset-Allocation.pdf
- Maggiore, M., Ford, K. M., High Street Consulting Group, and Burns & McDonnell. "Guide to Cross-Asset Resource Allocation and the Impact on Transportation System Performance," National Cooperative Highway Research Program, Report# 806, Transportation Research Board of the National Academies, Washington, D.C., 2015. http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp\_rpt\_806.pdf
- Thompson, P. D., Sadasivam, S. and Mallela, J., "Identification of Effective Next Generation Pavement Performance Measures and Asset Management Methodologies to Support MAP-21 Performance Management Requirements," Volume 2: Methodologies to Enable Full Implementation of a Comprehensive Asset Management Plan, Federal Highway Administration, Research, Development, and Technology 2017 https://highways.dot.gov/research/projects/identification-effectivenext-generation-pavement-performance-measures-asset-management.
- 8. Spy Pond Partners, KPMG, and University of Texas University of Texas at Austin Center for Transportation Research, "A Guide to Developing Financial Plans and Performance Measures for Transportation Asset Management," National Cooperative Highway Research Program, Report# 898, Transportation Research Board of the National Academies Washington, D.C., 2019.
- Cambridge Systematics, Inc. "Guide to Incorporating Reliability Performance Measures into the Transportation Planning and Programming Processes," Strategic Highway Research Program Report S2-LO5-RR-2. Transportation Research Board of the National Academies. 2014. http://onlinepubs.trb.org/onlinepubs/shrp2/SHRP2\_S2-L05-RR-2.pdf.
- 10. Patidar, V., Labi, S., Sinha, K.C., and Thompson, P. Multi-Objective Optimization for Bridge Management Systems. National Cooperative Highway Research Program,



Report# 590, Transportation Research Board of the National Academies Washington, D.C., 2007. http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp\_rpt\_590.pdf

- Bai, Q., Labi, S., Sinha, K. C., and Thompson, P. D. Multiobjective Optimization for Project Selection in Network-Level Bridge Management Incorporating Decision-Maker's Preference Using the Concept of Holism. J. Bridge Engineering, 18(9), 2013, 879-889.
- 12. Jiang, Y. Bridge Management Systems. Chapter 22 in T. F. Fwa (Ed.). The Handbook of Highway Engineering, 2005.
- Liu, M. and Frangopol, D. Multiobjective Maintenance Planning Optimization for Deteriorating Bridges Considering Condition, Safety, and Life-Cycle Cost, J. Structural Engineering, 131 (5), 2005, 833-842.
- Bai, Q., Labi, S., and Sinha, K. C. Trade-off analysis for multiobjective optimization in transportation asset management by generating Pareto frontiers using Extreme Points Nondominated Sorting Genetic Algorithm II. J. Transportation Engineering, 138(6), 2011, 798-808.
- 15. Morcous, G. and Lounis, Z. Maintenance optimization of infrastructure networks using genetic algorithms. Automation in construction, Elsevier, 14 (1), 2005, 129-142.
- 16. Lee, Cheol-Kyu and Kim, Sung-Keun. GA-based algorithm for selecting optimal repair and rehabilitation methods for reinforced concrete (RC) bridge decks. Automation in construction, Elsevier, 16(2), 2007, 153-164.
- 17. Halfawy, M., "Cloud-based scalable software for optimal long-range network-level bridge improvement programming," Transportation Research Record: Journal of the Transportation Research Board, 2017. 2612:132–140, https://doi.org/10.3141/2612-15
- Hudson, S., Galenko, A., and Scheinberg, T., "Trade-Off Analysis for Transportation Agencies: Two Approaches to the Cross-Asset Problem," International Conference on Engineering and Applied Sciences Optimization, Papadrakakis, M., Karlaftis, M. G., Lagaros, N. D., (Eds.), Kos Island, Greece, June 4-6, 2014.
- 19. Posavljak, Milos, "Cross Asset Trade Off Analysis for Roadway Networks," United States Patent Application 20170103371, http://www.freepatentsonline.com/y2017/0103371.html
- 20. Laumet, P. and Bruun, M., "Trade-off Analysis for Infrastructure Management: New Approaches to Cross-asset Challenges," Transportation Research Procedia, Volume 14, 2016, PP 422-429, https://www.sciencedirect.com/science/article/pii/S2352146516300953?via%3Dihub
- Saaty, Thomas L., "Theory and Applications of the Analytic Network Process: Decision Making with Benefits, Opportunities, Costs, and Risks," RWS Publications. 2009.



- 22. Caltrans, "2019 State Highway System Management Plan," https://dot.ca.gov/-/media/dot-media/programs/asset-management/documents/f0019647-shsmpa11y.pdf
- 23. Cambridge Systematics, Inc., PB Consult Inc., and Texas Transportation Institute, "Performance Measures and Targets for Transportation Asset Management," National Cooperative Highway Research Program Report 551. Transportation Research Board of the National Academies. 2006. http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp rpt 551.pdf.
- 24. Spy Pond Partners, "Summary of Caltrans MODA Review," February 2017 (Unpublished Memorandum).
- 25. Cross-Asset Resource Allocation Tool, https://www.caratview.com/, Last Visited March 2021.



Appendix A:

Preliminary Life Cycle Modeling and Planning Scenarios of Caltrans SHS Bridges



## A.1 Data Sources and Analysis

In this analysis, we considered the entire Caltrans NBI data (1992-2020). The SHS bridges are identified as follows: NBI Item 22 is "1", span length >=20 feet, and have "route is carried on the structure (Item 5A or Record Type is "1"). All 946 culverts <u>were excluded</u> from the analysis. Initial modeling and analysis were performed on 2018 data set, and later updated based on 2019, and then 2020 data set. Details of the analysis can be accessed in the Asset Optimizer software.

Based on 2018 NBI data, Caltrans SHS bridge inventory includes <u>11,458</u> SHS bridges, with a total deck area of approximately 244 million square feet (22.7 million square meters). Bridge material (NBI Item 43A) is largely dominated by concrete (54% by count, 40% by deck area), prestressed concrete (39% by count, 46% by deck area), and steel (5% by count and 13% by deck area). The type of design/construction (Item 43B) is dominated by box girders (60% by count, 69% by deck area), slab (16% by count, 5% by deck area), T-beam (11% by count, 7% by deck area), and stringer/multi-beam types (9% by count, 12% by deck area) (Figure 39). Figure 40 shows the breakdown of SHS bridges by both material and design type.



Figure 39: Number of SHS bridges by Design/Construction Type (Item 43B)





IDS



Figure 40: Number of SHS bridges by Material and Design type (Items 43A and 43B)

Caltrans has a relatively aging bridge population, with an average age of 37.5 years, whereas the median age is 43 years. Age is calculated as the difference between the inspection year (NBI Item 90) and Year Built (Item 27) or Year Reconstructed (Item 106). Figure 41 shows the distribution of SHS construction year (by total deck area) and age. Many of Caltrans SHS bridges that were built during the 1960s and 1970s are reaching end of their service life, and therefore, are expected to experience a faster rate of deterioration over the coming few years.

The age boxplot shows that the 1<sup>st</sup> quartile (25% percentile) of the age values is 22 (i.e., 25% of SHS bridges have age less than 22 years), and the 3<sup>rd</sup> quartile (i.e., 75% percentile) is 51 years (i.e., 75% of bridges have age less than 51 years). The interquartile range (IQR) (or the middle fifty percent of the age values) indicates that the 50% all SHS bridges have age between 22 and 51 years. IQR indicates the statistical dispersion of the data, and is considered as a better metric of data dispersion than the range value (or maximum minus minimum). The 2<sup>nd</sup> and 98<sup>th</sup> percentile of the age values are 2 and 77 years, respectively (i.e., 98% of the bridges have an age of less than 77 years, while only 2% of the bridges have an age less than 2 years).





SHS TOTAL DECK AREA BY BUILT YEAR

#### Figure 41: Number of SHS bridges by Built Year



NBI 2018 data shows the SHS inventory with approximately 64% of total deck area in good condition, 31% in fair condition, and 4.85% in poor condition (Figure 42).



#### (2018) NUMBER OF SHS NHS BRIDGES BY FHWA PERFORMANCE MEASURE

Figure 42: FHWA Performance Measure for SHS Bridges based on NBI 2018 Data by deck area

Examining historical trends of system performance can provide valuable insights into the rate of system deterioration (and improvements), which would have significant implications on the development of asset management plans and assessing future financial requirements to maintain the system in a state of good repair.

Caltrans NBI data for SHS bridges showed a historical trend of continuous degradation of average condition until approximately 2008, followed by a steady increase in systemaverage condition until 2016. A return to the deterioration trend was observed in 2017 and 2018. Figure 43 shows the trend of the bridge condition index (CI or S1) and risk index (RI) for the SHS bridge inventory.

The data also showed that the accelerated deterioration between 1992 and 2008 was primarily attributed to the deterioration of deck condition, as shown in Figure 44. Figure 45 shows the total distribution of good, fair, poor bridges by count and deck area for 2008 (worst year) and 2016 (best year). Figure 46 shows the historical distribution, by count and by total deck area, of SHS bridges based on the FHWA performance measure. Table 7 shows the historical trend of good, fair, poor bridges for SHS, SHS-NHS, and SHS-Non-SHS by percentage of count and deck area.





AVERAGE SHS BRIDGE CONDITION INDEX (S1) HISTORY (WEIGHTED BY DECK AREA)

• All SHS Bridges • SHS NHS • SHS Non-NHS

AVERAGE SHS BRIDGE RISK INDEX HISTORY (WEIGHTED BY DECK AREA)



IDS

IDS

Figure 43: Historical trend of average Condition Index (top) and Risk Index (bottom) for SHS bridges (weighted by total deck area)





Figure 44: Historical trend of weighted-average condition of deck, superstructure, and substructure







Figure 46: FHWA Performance measure for SHS bridges (by deck area- top, by count-bottom)



All SHS Bridges						
Year	Poor		Fair		Good	
	% Count	% Area	% Count	% Area	% Count	% Area
1992	1.91%	5.31%	20.63%	22.38%	77.46%	72.32%
1993	1.91%	5.02%	21.49%	22.70%	76.60%	72.29%
1994	2.52%	5.57%	21.22%	21.72%	76.26%	72.70%
1995	3.43%	6.55%	21.37%	22.17%	75.20%	71.28%
1996	2.91%	5.87%	20.71%	21.27%	76.38%	72.87%
1997	3.79%	6.20%	32.28%	35.58%	63.93%	58.22%
1998	4.89%	7.31%	32.76%	33.43%	62.35%	59.27%
1999	8.74%	11.19%	33.95%	33.91%	57.31%	54.91%
2000	10.65%	14.50%	35.52%	35.73%	53.83%	49.78%
2001	11.60%	15.91%	37.19%	39.24%	51.21%	44.85%
2002	12.60%	18.74%	40.93%	41.48%	46.47%	39.79%
2003	13.32%	20.00%	44.11%	42.50%	42.57%	37.49%
2004	13.42%	21.93%	44.68%	43.79%	41.90%	34.28%
2005	13.63%	19.79%	46.05%	45.70%	40.31%	34.50%
2006	13.48%	19.46%	47.55%	47.48%	38.97%	33.07%
2007	14.08%	19.74%	48.65%	48.39%	37.27%	31.87%
2008	14.50%	19.48%	49.55%	49.85%	35.95%	30.67%
2009	14.19%	19.16%	50.13%	49.94%	35.67%	30.90%
2010	12.96%	18.37%	50.87%	50.60%	36.17%	31.03%
2011	10.44%	16.03%	52.09%	51.10%	37.47%	32.87%
2012	9.06%	13.18%	53.65%	54.54%	37.29%	32.28%
2013	7.51%	11.07%	54.01%	55.01%	38.48%	33.92%
2014	5.58%	8.00%	53.92%	54.75%	40.50%	37.24%
2015	4.33%	6.28%	44.12%	46.69%	51.55%	47.03%
2016	2.74%	3.82%	25.01%	29.50%	72.24%	66.68%
2017	2.84%	3.78%	23.08%	26.26%	74.08%	69.97%
2018	3.78%	4.62%	30.06%	32.92%	66.16%	62.45%
SHS-NHS	1	1	1	1		
1992	0.80%	5.05%	16.69%	22.80%	82.51%	72.16%
1993	1.37%	5.58%	19.39%	23.60%	79.24%	70.81%
1994	2.15%	6.18%	19.96%	24.08%	77.89%	69.74%
1995	3.50%	7.93%	20.35%	24.47%	76.15%	67.59%
1996	2.66%	6.25%	18.61%	21.88%	78.73%	71.87%

Table 7. Historical Percentage of Good, Fair, Poor Bridges for SHS, SHS-NHS, and SHS-Non-NHS



1997	4.02%	7.82%	31.80%	36.93%	64.18%	55.26%
1998	5.41%	8.73%	33.56%	34.14%	61.03%	57.14%
1999	9.76%	12.32%	34.63%	34.32%	55.61%	53.35%
2000	11.60%	15.94%	36.22%	36.33%	52.18%	47.73%
2001	12.65%	17.76%	37.62%	40.55%	49.73%	41.69%
2002	13.89%	21.56%	40.85%	41.53%	45.27%	36.92%
2003	14.98%	23.48%	43.91%	41.52%	41.11%	35.01%
2004	15.13%	26.41%	44.32%	42.71%	40.55%	30.88%
2005	15.07%	23.14%	45.52%	44.78%	39.41%	32.08%
2006	15.21%	22.54%	46.53%	46.57%	38.26%	30.89%
2007	15.91%	22.54%	47.39%	47.22%	36.70%	30.24%
2008	16.40%	22.06%	47.83%	48.59%	35.78%	29.36%
2009	15.80%	21.87%	48.69%	48.38%	35.51%	29.75%
2010	14.08%	20.79%	49.38%	49.36%	36.54%	29.85%
2011	11.02%	18.15%	51.35%	49.93%	37.63%	31.92%
2012	9.64%	14.81%	52.40%	53.14%	37.96%	32.05%
2013	7.86%	12.10%	52.81%	53.85%	39.34%	34.05%
2014	5.60%	8.53%	52.97%	53.85%	41.43%	37.62%
2015	4.33%	6.66%	43.16%	46.26%	52.51%	47.08%
2016	2.83%	4.17%	23.60%	29.08%	73.57%	66.75%
2017	2.86%	4.02%	21.01%	25.17%	76.13%	70.81%
2018	3.74%	4.85%	27.88%	31.37%	68.38%	63.78%
SHS Non-NHS						
1992	2.43%	5.47%	22.47%	22.11%	75.09%	72.42%
1993	3.19%	2.72%	26.50%	18.98%	70.31%	78.30%
1994	3.06%	4.36%	23.02%	16.98%	73.92%	78.67%
1995	3.34%	3.66%	22.87%	17.36%	73.79%	78.98%
1996	3.55%	4.24%	25.93%	18.61%	70.52%	77.15%
1997	3.43%	2.70%	33.01%	32.68%	63.56%	64.63%
1998	4.07%	3.87%	31.50%	31.70%	64.44%	64.43%
1999	7.10%	8.23%	32.85%	32.82%	60.05%	58.95%
2000	9.14%	10.77%	34.41%	34.17%	56.45%	55.06%
2001	9.91%	11.15%	36.52%	35.87%	53.57%	52.98%
2002	10.56%	11.41%	41.06%	41.36%	48.38%	47.23%
2003	10.71%	11.21%	44.42%	45.00%	44.87%	43.80%
2004	10.74%	10.67%	45.24%	46.48%	44.02%	42.84%
2005	11.36%	11.28%	46.90%	48.05%	41.74%	40.67%
2006	10.74%	11.69%	49.17%	49.76%	40.09%	38.55%



2007	11.18%	12.63%	50.67%	51.38%	38.16%	35.99%
2008	11.50%	12.98%	52.29%	53.03%	36.21%	34.00%
2009	11.66%	12.28%	52.41%	53.88%	35.94%	33.83%
2010	11.20%	12.35%	53.22%	53.70%	35.58%	33.95%
2011	9.52%	10.76%	53.27%	54.01%	37.21%	35.24%
2012	8.13%	9.13%	55.63%	58.03%	36.24%	32.84%
2013	6.53%	6.06%	57.44%	60.65%	36.03%	33.29%
2014	5.54%	5.42%	56.63%	59.19%	37.82%	35.39%
2015	4.33%	4.41%	46.85%	48.80%	48.82%	46.79%
2016	2.49%	2.08%	29.04%	31.59%	68.46%	66.33%
2017	2.79%	2.57%	28.97%	31.59%	68.25%	65.84%
2018	3.90%	3.53%	36.27%	40.55%	59.83%	55.93%

### A.2 Data Limitations for Deterioration Modeling

Deterioration models should represent the natural rate of condition degradation due to aging, and without considering any condition improvements due to maintenance actions. Bridges that experience faster rate of deterioration typically undergo more frequent and/and extensive maintenance and preservation activities (e.g., deck overlay/repair, deck replacement, etc.) to rectify defects and ensure safety. Absence of maintenance history often pose a challenge for modeling bridge deterioration. Information on the type, frequency, and criteria of maintenance actions would be required to assess the natural deterioration of bridge components and the impact of maintenance actions on the condition. In absence of this information, the data should be filtered to remove records indicating occurrence of maintenance actions. Figure 47 shows historical trend of deck condition for some concrete box girder bridges.



Figure 47: Changing deck condition due to deterioration and maintenance actions



Another challenge, also caused by the absence of maintenance history data, is that the distribution of bridge inspection data may show misleading trends or inaccurate correlations. For example, in some cases we may find a negative correlation between a bridge age and the condition of its components, where components in older bridges, which may have undergone rehab actions or replacements, would have better condition than similar newer bridges. Figure 48 illustrates this issue where the distribution of SHS deck condition and age shows a median age of bridges in fair deck condition (5) to be 30 years, whereas bridges in very good condition deck (8) have a median age of 42. Decks with bridge age > 40 and condition states of 7 or 8, were most likely replaced or subjected to extensive maintenance and rehab work. Also, when a deck is replaced, this information is not reflected in NBI data because Item (27 Built Year) only references the construction year of the entire bridge structure.

To overcome the lack of correlation between age and condition, some modelers use "age restrictions" to filter records that have condition inconsistent with their age. In this approach, the data is interval-censored to only allow records that have age within specific ranges for each condition state (e.g., assume that valid records with very good deck condition would have a maximum age of 15 years).



DISTRIBUTION OF SHS DECK CONDITION AND AGE

Figure 48: Boxplot of age of SHS bridges for each deck condition state, showing decks in condition 7 and 8 to have a higher median age than bridges in condition 4 and 5



This issue may also pose a challenge when trying to correlate other deterioration factors with bridge condition. For example, in some situations, bridges with higher truck traffic, which would deteriorate faster and need more frequent treatments, may be shown to have better condition than bridges with lower truck traffic.

Bridges are typically repaired (or closed) once starting to deteriorate to a serious condition state. As a result, sufficient data on bridges in poor condition may not be available. Another challenge often found in bridge data is that the distribution of condition data may not represent all possible condition states, which results in lacking enough samples of bridges in poor condition. For example, the frequency distribution of Caltrans SHS deck condition by age (Figure 49) shows the majority of bridge decks in condition states 5,6,7,8 with minimal data points for other condition states (1,2,3,4). Also, no bridges in 2018 data were shown to be in condition 9.

Because of the data limitations described above, many agencies still rely on expert elicitation to define bridge deterioration models, in spite of the presence of significant amount of historical bridge inspection data. To utilize available inspection data for deterioration modeling, and in absence of maintenance data, the inspection data should be censored (or truncated) to exclude records indicating condition improvements and only use records indicating deterioration due to aging. In this study, we used a datadriven approach based on historical inspection records after processing the data over the 27 years history of NBI data, as described in the next section.



Figure 49: Frequency distribution of SHS deck condition and bridge age (2018 NBI data)



## A.3 Performance and Risk Modeling Approach of Caltrans Bridge Inventory

We propose to use a risk model based on a modified version of the FHWA Sufficiency Rating (SR) formula and Iowa DOT Priority Ranking formula. The model defines modified equations of the four SR factors, S1, S2, S3, and S4, and adds a factor, S5 (Figure 50). Each of these factors measures a specific aspect of the bridge risk. Collectively, these factors would provide a comprehensive measure for evaluating the "relative" risk of failure of bridges, that can guide the project selection process.

In summary, S1 measures the structural condition and adequacy of a bridge based on the condition of its key components (deck, superstructure, substructure, and load capacity). The value of S2 measures the bridge's geometrics and functional obsolescence taking into consideration under-clearance adequacy (NBI Item 69), waterway adequacy (NBI Item 71), and roadway lane width (NBI Items 51 and 28). The value of S3 reflects the bridge's essentiality for the public, taking into account traffic volume (NBI Item 29), detour length if the bridge is closed (Item 19), and whether the roadway is on the National Highway System (Item 104). The value of S4 takes into account whether the bridge is fracture critical or fatigue vulnerable (Items 92A and 92C) and channel protection (Item 61). The value of S5 takes into account for scour and seismic criticality, which are of particular importance for Caltrans bridges. These five measures are calculated based on NBI items as explained below.



Figure 50: Proposed Bridge Risk Model



### Structural Adequacy and Safety

Structural adequacy is measured using S1, which indicates the bridge's structural condition and is used as a surrogate for Condition Index (CI). S1 is calculated based on deck, superstructure, and substructure condition, as well as the inventory load rating, using the following equation:

S1 = 55 - (A+B+C+E)

Where, A, B, C, and E are reduction factors and estimated based on NBI condition ratings of superstructure (Item 59), substructure (Item 60), deck (Item 58), and inventory load rating (Item 66), respectively. The values of the reduction factors, A, B, and C are estimated as shown in Table 8.

NBI Rating	A (Based on Item 59 Superstructure)	B (Based on Item 60 Substructure)	C (Based on Item 58 Deck)
N or 9	0	0	0
8	2	2	1
7	4	4	2
6	7	7	4
5	10	10	6
4	13	13	9
3	15	16	12
<= 2	20	20	15

 Table 8. Values of Condition Reduction Factors

The load carrying capacity reduction factor, E, is calculated based on the inventory load rating (NBI Item 66). The value of E is calculated as follows:

<u>Case 1</u>: If item 65 = 0, 1, 2, 3, 4, 5, A, B, C (i.e., inventory rating reported in metric tons) E =  $(32.4 - \text{Item } 66/10)^{1.5} \times 0.3254 \times 0.5 \ge 0$ 

<u>Case 2:</u> If item 65 = 6, 7, 8, D, E, F (i.e., inventory rating reported by rating factor) E = {(1 – Item 66/100)\*32.4}<sup>1.5</sup> x 0.3254 x 0.5 ≥ 0

If Item 66/10 > 32.4 in Case 1 or Item 66/100 > 1 in Case 2 then E = 0

S<sub>1</sub> is then calculated as: S1 = 55 - (A+B+C+E)  $\geq$  0 and  $\leq$  55



The value of  $S_1$  is used to indicate the overall structural condition, or health, of a bridge, where, S1=55 (New bridge)

Bridge Condition Index,  $CI = S_1$ 

S1 value ranges between 55 (as-new condition) to 0 (failure).

#### Geometrics and serviceability

Geometrics and serviceability are measured using the S2 factor, which is calculated based on under-clearance adequacy, waterway adequacy, and roadway width.

Under-clearance Adequacy

lf (ltem 69 or 9	= 'N' Then	S2A = 0
8	Then	1
7	Then	2
6	Then	4
5	Then	6
4	Then	8
<= 3	Then	10

Waterway Adequacy

lf (Item 71 or 9	= 'N' Then	S2B = 0
8	Then	1
7	Then	2
6	Then	3
5	Then	4
4	Then	5
<= 3	Then	6

#### Roadway Width

If Item 43B = 19 or Item 51 = 0, then C = 0



If (Item 51/Item 28)	≤14	Then	S2C = 14
	>14 & ≤15	Then	S2C = 10
	>15 & ≤16	Then	S2C = 6
	>16 & ≤17	Then	S2C = 2
	>17	Then	S2C = 0
0 00 (004 005			

 $S_2 = 30 - (S2A+S2B+S2C) \ge 0$ 

### Essentiality for public Use

Essentiality for public is measured based on traffic volume, detour length, and the highway system classification (NHS or non-NHS).

Essentiality for public use

K = (S1 + S2)/85

S3A = (ÁDT (Item 29) x Detour Length (Item 19) x 15)/(320,000 x K)

NHS Highway

If item 104(Highway System) > 0 Then S3B = 5 Else S3B = 0 S3 =  $15 - (S3A + S3B) \ge 0$ 

### **Vulnerability and Structure Type Reductions**

Structural vulnerability is measured by the S4, which is based on whether the bridge is fracture critical and/or fatigue vulnerable.

If Fracture Critical (Item 92A)	then	S4A = 2
If Fracture Critical and Fatigue Vulnerable (Item 92C)	then	S4A = 5

Channel Protection	<u>1</u>			
If (Item 61 or 9	= 'N'	Then	S4B 0	=
8		Then	1	
7		Then	2	
6		Then	3	
5		Then	4	
4		Then	5	
<= 3		Then	6	
S4 = S4A + S4B				



## Scour and seismic Criticality

Scour and seismic vulnerability are measured using S5. Scour criticality (S5A) is determined based on NBI item 113, where a value less than or equal 3 is considered as "Scour Critical," which would include: (1) bridges with foundations determined to be unstable for calculated scour condition (e.g., scour within limits or within footing base or piles tips; (2) bridges with extensive scour requiring immediate mitigation measures; or (3) bridges where failure of piers/abutments is imminent. In these cases, a reduction of 2 points is assumed.

If Scour Critical (Item 113 <=3) Then S5A = 2 Else S5A = 0

Seismic vulnerability is determined by Caltrans' Office of Earthquake Engineering, Analysis & Research (OEEAR). The latest screening, completed in 2019, was used in this study to estimate seismic criticality of bridges. OEEAR methodology identifies five categories of seismic vulnerability and calculates hazard and impact score for each bridge. S5B is calculated based on the value of the normalized score provided by OEEAR, as follows.

If Seismic Vulnerability Normalized Score > 0.5Then S5B = 5Else if Seismic Vulnerability Normalized Score > 0.2 and <=0.5</td>Then S5B = 2ElseS5B = 0

S5 = S5A + S5B

The total value of (**S2 + S3 - S4 - S5**) is used to indicate the "criticality index" of a bridge. This index is a surrogate for measuring the impact/consequence of functional inadequacy or failure.

#### Criticality Index = S2 + S3 - S4 - S5

Criticality index ranges from 0 (highest criticality) to 45 (lowest criticality).

The overall risk index (RI) for a particular bridge is calculated as:

#### RI = 100 – (CI + Criticality Index)

= 100 - (S1 + S2 + S3 - S4 - S5)

Where, RI ranges from 0 (lowest risk) to 100 (highest risk). A bridge may be considered as low risk (i.e., low priority) if RI<30 and high risk (i.e., high priority for treatment) if RI >= 62.5.

Each of the risk model parameters described above requires a unique predictive model to forecast changes over the life of a bridge, and assess impact of treatments on bridge risk. This process in integrated into the multi-objective optimization model, and is performed systematically over planning horizons, as described in the next section.



## A.4 Deterioration Modeling

Bridge deterioration is a complex, multi-dimensional and stochastic process that results from the effects and interaction of several physical and operational factors. Some of the key factors influencing bridge deterioration include the bridge material, structural type, age, truck traffic, total length, number of spans, length of maximum span, skew angle, and bridge location (i.e., exposure to aggressive environmental/climatic conditions such as corrosion). Deterioration models are required to reflect the deterioration rates over time, and correlate bridge physical and operational characteristics with condition ratings to predict the condition of a bridge, or bridge components, at any time during its life.

In spite of numerous research projects addressing this area, the development of reliable deterioration prediction has been, and is still, a major challenge for developing long-range bridge programs. In some cases, the impreciseness and/or incompleteness of the data, combined with the relatively limited knowledge we have about the causal relationships and interdependencies among bridge parameters would make it rather difficult to quantify the impact of various factors on deterioration or to have high confidence in the models. In some cases, the models are still developed based primarily on subjective judgment and expert opinion, with limited use of available inspection data.

In this study, we employed a data-driven approach to develop deterioration models. The approach involved the use of NBI data of Caltrans SHS bridges over 27 years period (1992-2018). In an attempt to correlate bridge physical and operational attributes with condition ratings, the NBI data was examined to identify deterioration patterns and key factors influencing the deterioration process of bridge components. A set of models were then developed to predict condition of each bridge component, as defined in the risk model, at any point in time. The following sub-sections outline the main steps we followed to develop these models.

A.4.1 Data Censoring and Calculation of Average Condition State Waiting Time

To address the above-mentioned data limitations, we implemented an approach to filter (or censor) the 27 years of NBI data to extract bridge records that have not experienced any improvements. Using NBI data between 1992-2018, the condition of each bridge was tracked in each year through the inspection history using the bridge structure number (Item 8). For each bridge, the number of years spent at each condition state, also known as waiting or sojourn time, was calculated. The condition state waiting time concept is often used in calculating transition probabilities in Markov chain models. However, we used it in this study to fit a probability distribution to represent average time of transitioning (or deteriorating) between condition states over the life of a bridge component.

Bridge records that included a condition improvement were excluded, or right censored, to ensure that only age-related deterioration is represented in the data set. Right censoring of the data occurred when a bridge component has undergone a maintenance action that led to improving its condition (i.e., transitioned to a better condition state,



where condition at  $T_{i+1}$  is better than condition at  $T_i$ ). For example, a deck condition that transitioned from state 5 to 7.

To illustrate the data extraction and censoring process, Figure 51 shows an example deck condition history for a concrete box girder bridge (Structure number 01 0016).





This typical data trend demonstrates the frequent changes of condition states due to deterioration and improvement actions. However, to be useful for deterioration modeling purposes, this data will need to be right-censored when an improvement has taken place, which appears to have occurred in 2005). It should be noted that we may also choose to left-censor the data if needed (e.g., for issues of data completeness or reliability). However, in our analysis, we chose to start from the first year of recorded NBI data (1992).

For each bridge component, the time spent (or waiting time) in each condition state was calculated. Table 9 shows the historical deck condition ratings of the example bridge (01 0016). Table 10 shows the historical deck condition data after censoring.



90 Inspection year	Built Year	Age	Other Attributes	NBI Table Year	58 Deck	Waiting Time
1991	1985	6		1992	7	6
1997	1985	12		1998	5	5
2002	1985	17		2003	4	2
2004	1985	19		2005	7**	2
2006	1985	21		2007	6	2
2008	1985	23		2009	7**	6
2014	1985	29		2015	6	2
2016	1985	31		2017	5	2

Table 9. Historical Deck Condition Rating for an Example Bridge (01 0016)

\*\* Indicate improvement in condition state

Table 10. Historical Deck Condition Rating for Bridge 01 0016 After Censoring

90 Inspection year	Built Year	Age	Other Attributes…			58 Deck	Waiting Time
1991	1985	6				7	6
1997	1985	12				5	5
2002	1985	17				4	2

This process was repeated for each bridge component to extract the data that can be used for modeling component deterioration due to aging. For a given component in a specific bridge population (or group), the time spent in one condition state was determined by averaging the waiting time for all bridges in that group, which would represent the average rate of deterioration, where no maintenance actions were performed. Subsequently, a deterioration model for the component in that bridge group can be determined based on the distribution of the cumulative waiting time, assuming the independence between the waiting times in each condition state.

It should be noted that since deterioration is a continuous process, a deterioration model should capture the continuous change in condition over time, and therefore should not approximate the condition to the discrete states for planning purposes. From a modeling perspective, the discrete condition states used in inspections (for practical reasons) would indicate that a component condition would remain static over a number of years, and abruptly change. For developing multi-year plans, the models should capture the continuous deterioration process, from year to year.



#### A.4.2 Defining Weibull Distribution Parameters

A deterioration model can be defined by the distribution of the cumulative waiting time in various condition states calculated in the previous step. After analyzing distributions of the cumulative waiting time and investigating a number of exponential and polynomial functional forms, we found that a Weibull-based distribution seems to correlate well with historical data and provides reasonable and acceptable predictions with respect to the observed history, and therefore were used to model deterioration of the bridge components. Weibull distribution is commonly used to predict changes of condition (or reliability) over the life of assets.

We used 2-parameter Weibull-based distribution and determined the best fit of the parameters based on examining data distributions and observing the value of the root-mean-square error (RMSE) for each combination of the parameters. The probability distribution function (PDF) and cumulative distribution function (CDF) of a 2-parameter Weibull distribution is given by Equation (1) and (2), respectively:

$$f(x) = \frac{\beta}{\alpha} \left(\frac{x}{\alpha}\right)^{\beta-1} e^{-\left(\frac{x}{\alpha}\right)^{\beta}}$$
 x>=0, where x represents time or asset age Equation 1  
$$f(x) = 1 - e^{-\left(\frac{x}{\alpha}\right)^{\beta}}$$
 x>=0 Equation 2

The first parameter,  $\alpha$ , is known as the "characteristic life" and is indicates the scale (or spread) in the distribution of data. The second parameter,  $\beta$ , is known as the shape factor and indicates the rate of deterioration.

The median value of the Weibull distribution is given by  $\alpha$  (ln 2)<sup> $\beta$ </sup>. The  $\alpha$  parameter is analogous to the mean in a normal distribution, and represents the 63.2 percentile of the data. The  $\beta$  parameter represents the rate of deterioration, with an increasing value indicating an increasing rate of deterioration over time. A  $\beta$  value of 3 roughly approximates the rate of a normal distribution, which we found to reasonably reflect the deterioration of bridge components.

The cumulative Weibull distribution function is used to represent the deterioration of individual components in asset groups. The function is scaled to represent the condition ratings used for bridge components (9 to 0 scale for deck, superstructure, and substructure components). Inventory load rating (expressed in metric tons) was mapped to intervals between 0 and 9. These intervals were used to calculate average waiting period. The scaled Weibull function is given in Equation 3.

$$f(x) = 9 - 9 * (1 - e^{-(\frac{x}{\alpha})^{\beta}})$$
 x>=0

Equation 3

### A.5 Defining Bridge Groups

The censored NBI data of the SHS bridge population was also examined to identify correlation between the condition of bridge components and key deterioration factors. The examined factors include age, (Item 43A) and the type of design and/or construction


(Item 43B), total traffic, truck traffic, design load, total length, maximum span length, and skew angle. This analysis showed that bridge deterioration is primarily influenced by the kind of material (Item 43A) and the type of design and/or construction (Item 43B). Other factors showed weak correlation with condition, and therefore were not considered in defining bridge groups. Some bridge groups showed different deterioration history for interstate and non-interstate bridges.

One approach for developing multivariate deterioration models is to consider condition as a dependent variable and other important deterioration factors as explanatory (independent) variables. However, fitting probability distribution functions for multivariate data, especially for high-dimensional data, may sometimes suffer from a level of inaccuracy which increases with dimensionality, often known as curse of dimensionality. Also, multivariate models may sometimes be difficult to calibrate, where calibrating one variable may negatively impact other variables. Moreover, in cases where data does not show good correlation, or where the preciseness and completeness of data may be in question, the added level of complexity for calibrating multivariate models may not be warranted or practical, given the desired, and feasible, level of predictive accuracy needed for developing long-term asset management plans.

In this study, we employed an approach, to reduce the problem dimensionality from multivariate to univariate, by categorizing bridges into a set of groups (or cohorts) that are assumed to have general homogeneous characteristics in terms of their deterioration rate and/or criticality. The grouping is based on the main factors determined to be influential in determining the rate of deterioration.

For each defined group, univariate deterioration models, where age is used as the only independent variable, were developed based on the cumulative average waiting times calculated previously. It should be noted that this approach can be extended to include more explanatory variables, if needed. However, the objective is to keep the number of these variables to the minimum, for the reasons mentioned above. It is also worth noting that it is important to define groups at an appropriate level of granularity to balance the level of desired accuracy in predicting deterioration and criticality, with the time and effort needed to build group-specific models.

Analysis of the SHS bridge population showed that bridge deterioration factors are primarily influenced by the kind of material (Item 43A) and the type of design and/or construction (Item 43B). Some of the groups showed different deterioration pattern for interstate and non-interstate bridges, and therefore, they were grouped further. In total, 24 groups were defined, as shown in Table 11.



Group ID	Bridge Type	Number of Bridges	Total Deck Area (sq. ft)
N-Slab-Conc-Cont	Non-Interstate Slab -Concrete (Continuous)	868	5,692,617
I-Slab-Conc-Cont	Interstate Slab -Concrete (Continuous)	568	3,576,307
Slab-Conc-S	Slab -Concrete (Simple)	301	1,443,969
Slab-PC-Cont	Slab -Prestressed Concrete (Continuous)	39	427,180
Slab-PC-S	Slab-Prestressed Concrete (Simple)	82	514,336
Box-Single-PC-C	Box Girder (Single)-Prestressed Concrete (Continuous)	105	3,691,740
Box-Single-PC-S	Box Girder (Single)-Prestressed Concrete (Simple)	49	393,241
Box-Single-Conc	Box Girder (Single)-Concrete	51	1,041,622
I-Box-Multiple-PC-C	Interstate Box Girder (Multiple)- Prestressed (Continuous)	498	24,448,585
N-Box-Multiple-PC-C	Non-Interstate Box Girder (Multiple)- Prestressed (Continuous)	1878	54,545,773
N-Box-Multiple-PC-S	Non-Interstate Box Girder (Multiple)- Prestressed (Simple)	802	8,308,183
I-Box-Multiple-PC-S	Interstate Box Girder (Multiple)- Prestressed (Simple)	463	5,702,563
N-Box-Multiple-Conc- Cont	Non-Interstate Box Girder (Multiple)-Concrete (Continuous)	1708	33,365,117
I-Box-Multiple-Conc- Cont	Interstate Box Girder (Multiple)- Concrete (Continuous)	939	30,144,044
Box-Multiple-Conc-S	Box Girder (Multiple)- Concrete (Simple)	437	4,673,697
TBeam-PC	T-Beam Prestressed Concrete (Simple & Continuous)	54	3,267,681
TBeam-Conc-S	T-Beam Concrete (Simple)	197	1,243,511
N-TBeam-Conc-Cont	Non-Interstate T-Beam Concrete (Continuous)	701	7,066,275
I-TBeam-Conc-Cont	Interstate T-Beam Concrete (Continuous)	318	5,479,382
Stringer-PC-Cont	Stringer Prestressed Concrete (Continuous)	225	4,681,317
Stringer-PC-S	Stringer Prestressed Concrete (Simple)	281	5,677,622
Stringer-Steel-Cont	Stringer Steel (Continuous)	138	4,752,478
Stringer-Steel-S	Stringer Steel (Simple)	433	12,212,511
Stringer-Conc	Stringer Concrete	50	2,299,298
TOTAL	•	11,185	224,649,050

### Table 11. Definition of SHS Bridge Groups



According to the proposed risk model, predicting a bridge condition index would require the prediction of each of the four components, which include: deck condition, superstructure condition, substructure condition, and load capacity reduction. Therefore, a total of four deterioration models are required for each bridge group (i.e., 96 models for the 24 groups). Figure 52 shows the total number and percentage of each group of the SHS bridge inventory.

The defined 24 groups represent approximately 98% of the total number, and 92% of the total deck area of Caltrans SHS bridges. The remaining 273 bridges were found to require special modeling due to their limited number and/or unique structure. Classified by the type of design/construction (Item 43B), these bridges include: 31 Frame, 3 Orthotropic, 8 Truss0Deck, 22 Truss-Thru, 102 Arch-Deck, 7 Arch-Thru, 5 suspension, 9 segmental box girder, 33 Girder/Floor-beam system, 12 Channel Beam, and 15 movable bridges. Further analysis is required to model these bridges.



Figure 52: Number of bridges in the defined 24 groups as % of SHS bridge inventory

## A.6 Defining Deterioration models for Bridge Groups

Weibull-based deterioration models were developed for each bridge component, in each of the 24 defined groups. The Weibull parameters were defined to ensure a best fit (i.e., lowest RMSE) with the condition state cumulative waiting time series. The example below explains the process used to develop the Weibull models for all 24 groups. This example shows the development of the deck deterioration model for the non-interstate box girder continuous concrete bridges. Figure 53 below shows the average waiting



times calculated for each deck condition state using the set of right-censored data for that group. Table 12 shows the calculated waiting times and cumulative waiting times in each deck condition state for the same group.



Figure 53: Average waiting times in each condition state of the deck component in the non-interstate box girder (multiple) continuous concrete bridges

Condition Rating	Year in This Condition	Cumulative Number of Years
9	4.71	4.71
8	4.72	9.43
7	8	17.43
6	6.13	23.56
5	4.73	28.29
4	4.56	32.85
3	4.91	37.76
2	3	40.76
1	2.12	42.88
0	2	Infinity

Table	12	Deck	condition	waiting	times	in	the	exam	nole	arou	n
able	12.	Deck	condition	waiting	umes		uie	слап	ihie	grou	Ρ



Different distributions (e.g., exponential, polynomial, linear, etc.) or Weibull distribution (Figure 54) can be fitted on the calculated cumulative waiting time.





<sup>🛨</sup> Linear Fit [(-0.21)\*X+(10.4); RMSE: 0.51]



Figure 54: Fitting different distributions for the cumulative average waiting times



Deck Condition Vs Cumulative Average Waiting Time

Exponential Fit [(11.7)\*exp((-0.0378)\*X); RMSE: 1.05]

<sup>2</sup>nd Deg Polynomial Fit [(-0.00309)\*X^2+(-0.0534)\*X+(9.04); RMSE: 0.24]

By examining the goodness of fit of these distributions (measured by the root-meansquare error), the best Weibull parameters can be defined for each component in each group, as shown in Figure 55. Table 13 provides the best values of the Weibull parameter ( $\alpha$ ) for the deck, superstructure, and substructure components for each of the defined 24 groups.

# NON-INTERSTATE BOX GIRDER - MULTIPLE (CONCETE CONTINUOUS) - DECK



0

0

#### NON-INTERSTATE BOX GIRDER -MULTIPLE (CONCETE CONTINUOUS)- SUPERSTRUCTURE



Condition vs Cumulative Average Waiting Time
9-9°(1-exp(-1°(age/40)^3)) (RMSE = 0.52)
9-9°(1-exp(-1°(age/42)^3)) (RMSE = 0.37)
9-9°(1-exp(-1°(age/43)^3)) (RMSE = 0.4)
9-9°(1-exp(-1°(age/41)^3)) (RMSE = 0.41)

IDS



#### NON-INTERSTATE BOX GIRDER -MULTIPLE (CONCETE CONTINUOUS)- INVENTORY RATING





• 9-9"(1-exp(-1"(age/110)//3)) (RMSE = 0.6:

Figure 55: Examining Weibull parameters and goodness of fit for each model

22

Cumulative Waiting Time

20

· Condition vs Cumulative Average Waiting Time

• 9-9\*(1-exp(-1\*(age/38)^3)) (RMSE = 0.69)

9-9\*(1-exp(-1\*(age/40)^3)) (RMSE = 0.57)

9-9\*(1-exp(-1\*(age/42)^3)) (RMSE = 0.67)



Group ID	Deck	Superstructure	Substructure
N-Slab-Conc-Cont	38	40	38
I-Slab-Conc-Cont	30	33	40
Slab-Conc-S	34	35	40
Slab-PC-Cont	22	20	23
Slab-PC-S	34	35	36
Box-Single-PC-C	16	15	15
Box-Single-PC-S	18	20	20
Box-Single-Conc	23	29	24
I-Box-Multiple-PC-C	32	36	37
N-Box-Multiple-PC-C	31	32	37
N-Box-Multiple-PC-S	35	37	42
I-Box-Multiple-PC-S	35	38	42
N-Box-Multiple-Conc-Cont	34	42	40
I-Box-Multiple-Conc-Cont	32	40	40
Box-Multiple-Conc-S	30	32	32
TBeam-PC	33	49	35
TBeam-Conc-S	30	37	34
N-TBeam-Conc-Cont	34	40	40
I-TBeam-Conc-Cont	33	36	36
Stringer-PC-Cont	32	37	40
Stringer-PC-S	33	42	42
Stringer-Steel-Cont	27	37	37
Stringer-Steel-S	36	41	43
Stringer-Conc	23	23	12

Table 13. Characteristic Life Parameter ( $\alpha$ ) for the 24 Groups Weibull Models

The censored data and selected distribution parameters showed a consistent behavior and reasonable correlation for almost all of the groups, especially when sufficient data points were available, in spite of the presence of outliers. Figure 56 shows an example frequency chart of deck condition and age for censored data of the non-interstate box



girder concrete continuous group, which is consistent with our observations and understanding of average life and deterioration of decks for this type of bridges. Figure 56 also shows the distribution of the condition and age data for the entire population in this group, indicating a reasonable correlation with age



- 58 Deck
- Exponential Fit [(7.23)\*exp((-0.00592)\*X); RMSE:1.35]
- 2nd Deg Polynomial Fit [(-0.000899)\*X^2+(0.0117)\*X+(6.62); RMSE:1.33]
- Linear Fit [(-0.0385)\*X+(7.22); RMSE:1.34]
- Weibull of Waiting Time: 9-9\*(1-exp(-1\*(age/34)^3)) (RMSE = 2.64)

IDS

Figure 56: Deck condition distribution with age for the non-interstate box girder (multiple) continuous concrete group, using censored data and assumed Weibull distribution



# A.7 Condition Predictions Using Incremental Models

A defined deterioration model is assumed to represent an average distribution (or deterioration trend) of a specific bridge component in a specific group. However, in reality, individual components within a particular group are rarely identical and often deteriorate at different rates due to a wide range of factors, including the factors we described above, which would cause these components with identical age to be at different condition states, as shown in Figure 57. Therefore, predicting the condition of a particular component should always take into consideration its initial condition state.

Although the vast majority of the differences between initial condition states within a single group may occur due to different physical, operational, or environmental factors, some outliers may also be attributed to limitations or inconsistencies in data recording. For example, the outliers shown to the right in Figure 57 indicate deck condition state of 7 or 8 for bridges with more than 60 years of age. These decks were likely replaced at some point; however, the recorded data have not captured the deck replacement year, where age is calculated based on the original construction year of the entire bridge structure. On the other hand, some outliers (to the left in Figure 57) show decks in condition states 2, 3, 4, or 5, while being less than 10 years old. This may also indicate data discrepancy where the bridge construction (or reconstruction) year may have been updated due to the replacement or major rehabilitation of another bridge component (e.g., bridge superstructure or substructure).



Figure 57: Distribution of initial deck condition ratings with respect to defined Weibull model for the non-interstate concrete box girder bridges (multiple-continuous)

Data discrepancy and presence of outliers are commonly found in practice, especially when considering large bridge inventories in NBI data. In our proposed approach, we examine the extent of these outliers, and if they are found to represent a significant



portion of a group population, this would indicate the need to define a separate group for these bridges. Otherwise, the defined models should define a special case for dealing with these bridges (e.g., assuming another distribution for the outliers).

The defined deterioration models were used predict the change in a bridge component condition starting from an initial state, as a function of age (independent variable). The initial condition state for each component were set to the values recorded in 2018 NBI data. Starting from an initial state, the models are used in an incremental recursive manner to predict future values, where the value in a specific year would be calculated based on the initial value known at a previous year. Since inspection cycles may occur at varying times, the initial values may also be captured at different inspection years. Figure 58 shows an illustration of this incremental analysis. The curve defined in Figure 58 is a zoomed-in part of the Weibull model in Figure 57.



Figure 58: Using the deterioration models to predict future condition states starting from initial states using an incremental recursive approach

The example in Figure 58 shows the calculation of the deck condition state at a future year when the bridge age is x (i.e.,  $R_x$ ), given an initial value ( $R_o$ ) at the last inspection (or predicted) year. The predicted value can be calculated as shown in Equation 4.

$$R_x = R_o - \Delta Y * \frac{d}{dx} f(x)$$

Equation 4

Where,

 $R_x$  = Predicted condition at age x



R<sub>o</sub> = Initial value

 $\Delta Y$  = Number of years between prediction year and the year of the initial value

$$\frac{d}{dx} f(x)$$
 = Slope of the Weibull function  $f(x)$  at age x

The slope (or derivative) of the Weibull cumulative distribution is given by Equation 5

$$f'^{(x)} = \frac{9\beta}{\alpha^{\beta}} * x^{\beta-1} e^{-\left(\frac{x}{\alpha}\right)^{\beta}}$$
 Equation 5

To validate the developed 96 deterioration models, future condition was predicted over a 20-year period (2020-2040) for all components in all groups, starting from the initial states in 2018 NBI data. Figure 59 shows the historical vs predicted values for three example bridges.



Figure 59: An example showing historical vs predicted deck condition for three sample bridges

Figure 60 shows 20-year predictions of deck, superstructure, and substructure conditions for a sample of bridges. Figure 61 also shows example predictions of the overall condition index (CI, or S1) and risk index (RI) for some bridges.





Figure 60: 20-Year predictions of deck, superstructure, and substructure conditions for some bridges









The developed deterioration models may also help in assessing the benefit of maintenance and preservation for a given group of bridges. For example, the curves in Figure 62 show the best fit of a Weibull model for the current (2018) deck condition data of the box girder (multiple) simple concrete bridges (shown in green), and the model developed for the censored data set of the same group (shown in red). It can be seen that for this bridge group, the deck maintenance/preservation actions significantly extended the service life of the deck.



- Age vs 58 Deck
- Weibull Fit (With Maintenance Actions): 9-9\*(1-exp(-1\*(age/80)^3)) (RMSE = 1.76)
- Base Weibull Fit (without Maintenance Actions): 9-9\*(1-exp(-1\*(age/30)^3)) (RMSE = 5....

IDS

Figure 62: Deterioration models help show the Impact of historical maintenance/preservation actions

## A.8 Bridge Treatments Models

During the optimization process, and in each year in the planning horizon, candidate improvement treatments are evaluated for each bridge, based on applicability constraints, as well as cost and benefit models defined for each treatment. The range of treatments that can be defined in the model includes various preservation, rehabilitation, functional improvement, or replacement actions. The treatment selection technique will ensure feasibility and achieving the best cost-benefit trade-offs.

In this study, six treatments were defined along with a set of constraints to reflect some common rules and work practices. The current treatments include: concrete overlay, deck repair, deck replacement, bridge replacement, bridge widening, and prestressed



beam end repair. The list of treatments can be easily extended to include others used at Caltrans.

Cost and effectiveness models for each treatment were used to estimate expected total cost and impact when the treatment is applied on a specific bridge. Approximate unit costs for these treatments were estimated using published Caltrans documents or based on previous experience and other data sources. Expected improvements for each of these treatments were also assumed, along with a set of rules governing the applicability of each treatment.

In developing cost and effectiveness models, judgement was made to determine what would normally be repaired during a bridge deck repair or rehab project. For example, during a deck overlay project, it was assumed that the superstructure or substructure would also have minor repairs done if their condition ratings were below a given threshold. Similarly, it was assumed that during a deck replacement project, some repairs would also be performed on the superstructure or substructure.

Treatments models also involves the definition of applicability constraints to ensure the technical feasibility and cost-effectiveness of a treatment when it is used on a particular bridge. Several applicability constraints were defined based on NBI attributes. Examples of used NBI attributes to define the constraints include: NBI Item 43A (material), Item 58 (deck condition), Item 59 (superstructure condition), Item 60 (substructure condition), Item 64 (operating rating), Item 108A (wearing surface), Item 68 (deck geometry), and the composite bridge condition index. For instance, constraints on the applicability of concrete overlay to a given bridge specified that: Item 43A = 1,2,3,4, or 5; Item 58 = 4,5, or 6; Item 59 > 4; Item 60 > 4; Item 64 > 32.4 tons; Item 68 > 3; and Bridge Condition Index > 30.

It is worth noting that while some of these criteria (e.g., material) were static, other criteria (e.g., deck or superstructure condition) were time-dependent, where the application of the constraints over the planning horizon will be based on predictions of future values calculated by the defined deterioration models. Table 14 summarizes the rules used to define the applicability constraints of treatments.

Treatment	Material (43A)	Deck CI (58)	Super CI (59)	Sub Cl (60)	Operatin g Rating (64)	Wearin g Surface (108A)	Deck Protectio n (108C)	Deck Geomet ry (68)	Conditio n Index (S1)
Concrete Overlay	1,2,3,4,5, 6	4-6	>=5	>=5	>32.4 tons	1,4	0,1,2	>3	>30
Deck Replaceme nt	1,2,3,4,5, 6	<=5	>=5	>=5	>32.4 tons	Any	Any	>3	>20

Table 14. Treatments' applicability criteria



Treatment	Material (43A)	Deck CI (58)	Super CI (59)	Sub Cl (60)	Operatin g Rating (64)	Wearin g Surface (108A)	Deck Protectio n (108C)	Deck Geomet ry (68)	Conditio n Index (S1)
Deck Repair	1,2,3,4,5, 6	4-5	>=4	>=4	Any	Any	0,1	Any	>25
		<=6	<=6	<=6				<=5	
Bridge Benlaceme	1,2,3,4,5,	<=6	<=5	<=6	Δηγ	Any	Any Any	Any	<30
nt	6	<=6	<=6	<=5				Any	
		<=5	<=6	<=6			Any		
Bridge Widening	3,4,5,6	>4	>4	>4	>32.4 tons	Any	Any	2	>25
Prestresse d Beam End Repair	5 (43B = 2,3)	>=4	<5	>=4	Any	Any	Any	Any	>30

Treatments' effectiveness are defined in terms of incremental condition improvement. Examples of improvements include higher condition ratings for bridge components, improved load rating, or improved bridge geometrics. The improvements often depend on a number of factors including the physical characteristics of the bridge and the current condition rating. Some constraints may be defined to specify a maximum limit to condition improvement for any treatment. For example, the condition rating of a bridge deck (NBI Item 58) was assumed to improve by 3 points as a result of an overlay, while the maximum improved condition can be capped at 7.

Another set of constraints were defined where the application of a specific treatment may be dependent on prior treatments applied over the planning horizon. These constraints may lead to eliminating future application of specific treatments depending on prior treatments made over the planning horizon. For example, a constraint may eliminate the use of repair on a deck for 10 years after a deck overlay treatment. Another set of constraints may specify the maximum number of occurrences of a particular treatment (e.g., deck repair should only be applied for two times on the same deck over the planning horizon, after which an overlay or deck replacement should be used). Table 15 summarizes the unit costs and condition improvement for each of the defined treatments, and a set of constraints that govern future applications of other treatments if a given treatment is used.



Tahla	15	I Init costs	improvements	and some	rules use	ad in the	proposed model
Iable	10.		, improvements,	and some	I UIES USE	eu in ine	proposed model

Treatment	Unit Cost	Expected Improvements (Effectiveness)	Rules
Concrete Overlay	\$50/sq. ft (\$538/Sq. m.)	3 points increase in Deck with a maximum deck condition rating of 7, increase superstructure and substructure by 1 point with a maximum condition rating of 7.	Do not re-overlay or replace or re-deck for 15 years. Do not repair deck for 5 years.
Deck Replacement	\$230/sq. ft (\$2,476/Sq. m)	Reset deck to condition 8, superstructure to condition 7, and substructure to condition 7.	Do not replace bridge for 15 years
Deck Repair	\$8/sq. ft (\$86/Sq. m)	2 points increase in deck condition.	Only repair deck twice. After second repair, deck should be overlaid or replaced. Do not repair, overlay, or replace deck for 5 years.
Bridge Replacement	\$635 sq. ft (\$6,835/Sq. m)	Reset all performance variables to As-New (Deck CI, Super CI, Sub CI, Inventory Rating, Items 69, 71, 61, 51, 92A, 92C, 113, and Seismic Score). Also, reset reconstruction year to year of replacement.	
Bridge Widening (Adding 12' Lane)	\$225/sq. ft of New Deck Width (\$2,422 * 3.6576 * Structure Length in meters)	2 points increase in Deck with a maximum rating of 8, Superstructure to condition 7, Substructure to condition 7.	Do not replace deck or bridge for 20 years.
Prestressed Beam End Repair	\$3000/Beam End* (See note below)	Superstructure increase 2 points to a maximum of 7, Substructure to condition 7	Do not repair beam ends for 15 years. Do not replace bridge for 10 years. Do not replace overlay deck for 5 years.



\* The cost of prestressed beam end repair is calculated based on the number of beam ends, and assuming 6 feet beam spacing in the cross section (i.e., bridge width divided by 6 feet). The total cost of beam end repair projects is calculated by multiplying the unit cost (\$3,000/beam end) by the number of beams by the number of joints, where the number of joints is assumed to be 2 if the total bridge length (Item 49) is <= 450 feet (137.16 meter), otherwise the number of joints is assumed to be 4.</p>

## A.9 System-Level Condition and Risk Metrics

The optimization objective function used for project selection is formulated to maximize system-level condition or minimize system-level risk index at the lowest lifecycle cost. These two system-level measures are calculated using a weighted average value based on deck area to represent the overall system condition and risk levels. System-level weighted average condition index (WACI) and risk index (WARI) are calculated as shown in Equations 6 and 7, respectively.

WACI	$=\frac{\sum_{i=0}^{N} CI_i \ DeckArea_i}{\sum_{i=0}^{N} DeckArea_i}$	Equation 6
WARI	$= \frac{\sum_{i=0}^{N} RI_i DeckArea_i}{\sum_{i=0}^{N} DeckArea_i}$	Equation 7

Where,

*WACI* = System-level weighted-average condition index

*WARI* = System-level weighted-average risk index

 $DeckArea_i$  = Deck area of Bridge i

$$CI_i$$
 = Condition index of Bridge i

 $RI_i$  = Risk index of Bridge i

N = Number of bridges considered in scenario

The multi-objective optimization model stochastically searches all possible combinations of bridges and feasible treatments to find a set of optimal solutions, each representing a candidate annual project list. The cost, benefit, and applicability rules of treatments are evaluated, as described below, to identify the optimal solutions. A subset of the solutions that satisfy financial constraints and condition and risk targets are then selected for further evaluation and trade-off analysis. The selected project list is then applied to update the condition of the bridges for the following planning period. In multi-year planning scenarios, this process is repeated for every year in the planning horizon. Resulting project lists are then used to quantify relationships between funding levels and the defined system-wide performance and risk measures.



# A.10 Preliminary Planning Scenarios and Trade-off Analysis

Based on the lifecycle and treatments models described in previous sections, we defined initial planning scenarios to assess the validity and accuracy of these models, investigate the impact of varying budget levels, and estimate the financial requirements for maintaining the SHS bridge inventory over the next 10 or 20 years. These initial scenarios will be revised to align with Caltrans estimated funding and performance targets.

Two sets of preliminary scenarios were defined and used to determine annual project lists over 10- and 20-years planning horizon. The two sets include: (1) Budget scenarios to assess the impact on system-level condition and risk levels; and (2) Target scenarios to evaluate budget requirements to achieve certain system-level performance and risk objectives.

The preliminary scenarios include:

- (1) Two baseline Do-Nothing scenarios, to determine the impact of zero investment over 10- and 20-years (2020-2030, 2020-2040).
- (2) Four 10-year budget scenarios (2020-2030), assuming fixed annual investment levels: \$500 million, \$800 million, \$1 billion, and \$2 billion.
- *(3)* Two 10-year budget scenarios (2020-2030), assuming stepped annual budget that increases over the years: \$1 to \$2 billion, and \$800 million to \$2.5 billion.
- (4) Two 20-year budget scenarios (2020-2040). One of the scenarios assumed a fix annual budget of \$1 billion, and the second assumed a stepped budget from \$800 million to \$5 billion.
- (5) Two condition target scenarios to assess financial requirements to maintain status quo system-level condition index of 43, over 10- and 20-years (2020-2030, 2020-2040), assuming unlimited budget.
- (6) Two risk target scenarios to assess financial requirements to maintain status quo system-level risk index of 32, over 10- and 20-years (2020-2030, 2020-2040), assuming unlimited budget.
- (7) One risk target scenario to assess financial requirements to maintain status quo system-level risk index of 32, over 10-years (2020-2030), assuming a maximum possible budget of \$2.5 billion.

Some constraints were assumed on the budget splitting among different types of treatments. These constraints can be modified to reflect Caltrans current practices, or to investigate the impact of a specific budget splitting regime. For example, some scenarios can be developed to assess the impact of a preservation-focused plan versus a replacement-focused plan. For example, Table 16 shows some budget splitting assumptions used in some scenarios.



Treatment	Maximum annual Investment as % of Total Annual Budget	Maximum number of projects
Bridge Replacement	60%	
Deck Replacement	25%	
Concrete Overlay	15%	
Deck Repair	10%	500
Bridge Widening	10%	
Prestressed Beam End Repair	10%	

Table 16. Example budget splitting limits assumed for some scenarios

An average annual inflation rate was assumed to be 4% for all scenarios.

Details of the annual project lists generated in each scenario are included as Excel sheets in appendix A. IDS Asset Optimizer software may also be used to support analysis and interactive visualization of scenario results.

Scenario results show future condition and risk trends (in terms of system-level average condition and risk indices), detailed information on condition and risk attributes of each bridge and bridge component, as well as annual cost and work type of projects. Results from these scenarios were used to investigate budget implications as well as to assess level of investment requirements to meet status-quo condition and risk levels. The impact of each scenario on system-wide condition and risk levels was assessed and compared with other scenarios.

For example, Figure 63 and Figure 64 show a summary of the \$800 million scenario. Figure 63 shows the system weighted-average condition and risk indices over the 10year planning horizon. It also shows the number of cost of projects for each treatment, Figure 64 shows the weighted-average condition index for the deck, superstructure, and substructure components. It also shows the distribution of the condition states of each component over the 10-year planning horizon. Information on selected projects can also be accessed using the GIS interface in Asset Optimizer (Figure 65). Comparison between different scenarios provided an insight on the trade-offs between different investment levels. For example, Figure 66 shows a comparison between four budgets scenarios: Do-Nothing, \$500 million, \$800 million, and \$1 billion.







Figure 63. Example results of the \$800 million scenario showing average condition index (top-left), average risk index (top-right), number of projects (bottom-left), and cost of projects.





#### \$800M SCENARIO- SUPERSTRUCTURE CONDITION STATES BY TOTAL DECK AREA





2025

Year

.8.9

2026 2027 2028

2029 2030

IDS



Figure 64. Example results of the \$800 million scenario showing weighted-average condition index and condition states of deck, superstructure and substructure components by deck area.





Figure 65. 10-year projects selected under the \$800M scenario







Figure 66. Comparison between four budget scenarios (Do-Nothing, \$500M, \$800M, and \$1B), showing impact of different budget levels on system-level condition and risk indices.



Appendix B:

Preliminary Life Cycle Modeling and Planning Scenarios of Caltrans SHS Pavement



## B.1 Data Sources and Analysis

Initially, we analyzed the publicly available Highway Performance Monitoring System (HPMS) data downloaded from the FHWA web site for 2016, 2017, and 2018 (https://www.fhwa.dot.gov/policyinformation/hpms/shapefiles.cfm). However, several data quality issues were found. For example, a large number of SHS pavement segments in 2016 data had the "Ownership" field incorrectly coded as '0' (instead of '1'). Condition data were mostly missing. Segments that had complete data were only about 4,000 centerline miles in total. HPMS data in 2017 and 2018 were also missing condition data for a large number of records. Caltrans subsequently provided an extract of HPMS 2018 data for the State Highway System (SHS) to be used for our analysis. This data set had fairly complete condition data (IRI, cracking, rutting, faulting). However, data on 'Year\_Last\_Improvement' (Item# 54) and 'Year\_Last\_Construction' (Item# 55) were missing. Therefore, for the purpose of our analysis, we made assumptions to estimate 'Year\_Last\_Improvement' value based on the condition state reported, assuming an average useful life for various surface types and functional classifications.

**Based on Caltrans** 2018 HPMS data. the SHS pavement inventory includes 187,538 segments, with a total length of 50,681 lane miles (~14,820 centerline miles). Bridge decks and approach slabs, tunnels, and causeways are not included in this pavement inventory. The network includes approximately 37,355 lane miles





(74%) of asphalt concrete (AC) pavement, 12,115 lane miles (24%) of Jointed Plain Concrete Pavement (JPCP), and 817 lane miles (2%) of Continuously Reinforced Concrete Pavement (CRCP) (Figure 67).

Figure 68 and Figure 69 show the breakdown of the total length of pavement segments based on highways functional classification, and surface type.











SHS Pavement Inventory by Functional Class and Surface Type

Figure 69: Length of SHS Pavement by Functional Classification and Surface Type

Figure 70 and Figure 71 show the total length and surface type of the pavement inventory for the National Highway System (NHS) and non-NHS.





Figure 70: Length of SHS Pavement for NHS and non-NHS Highways



Figure 71: Length of SHS Pavement by Surface Type for NHS and non-NHS Highways



The SHS pavement inventory has an annual travel of approximately 180,119 million vehicle miles (MVMT). Approximately 95% of travel occurs on the NHS system (split almost in half between interstate and non-interstate), whereas travel on non-NHS system accounts only for 5% of the total travel (Figure 72).



Total Travel By NHS Classification



Initial modeling and planning were performed using HPMS fine segmentation data, which included approximately 198,583 segments. Although these fine segments are useful in capturing small performance changes across the network, planning scenario results using these fine segments produced a large number of small projects, mostly with impractical size. Generating practical projects based on these fine segments would require additional post-processing to spatially aggregate these small projects into larger meaningful projects with practical size. To overcome this limitation, the pavement coarse segments data (2016) has been later used for modeling. This data set included approximately 4,329 segments. However, the data set was missing pavement distress data that existed in the HPMS fine segments data. A spatial join of the coarse segments data and HPMS 2018 data (Figure 73) was performed to estimate average values of pavement distresses for the coarse segments, including average IRI, rutting, cracking, and faulting. Using coarse segment class (I, II, and III) for HMA and JPC surface types.





Figure 73: Spatial join of SHS Coarse Segments and HPMS Data to Calculate Average Distresses in Coarse Segments.

## B.3 Pavement Condition Data and Performance Measures

Caltrans 2018 HPMS data included information on three (3) main distresses: cracking, international roughness index (IRI), and rutting (for AC pavement) and faulting (for JPCP and CRCP pavement). Pavement condition is assessed into categories of Good, Fair, and Poor based on the national FHWA final rule of the MAP-21 performance measures. The condition metrics include:

- Cracking Percentage.
- International Roughness Index (IRI).
- Rutting (for flexible pavement).
- Faulting (for rigid pavement).

For each of these metrics, FHWA has established thresholds as shown in Table 17.



Condition Metric	Good	Fair	Poor
IRI (inches/mile)	<95	95-170	>170
Cracking (% area)			
AC	<5	5-20	>20
JPCP	<5	5-15	>15
CRCP	<5	5-10	>10
Rutting (inches)- For AC pavement	<0.2	0.2-0.4	>0.4
Faulting (inches)- For JPCP and CRCP	<0.10	0.10-0.15	>0.15

Table 17. Performance thresholds for pavement condition categories

After calculating the condition metrics for each pavement segment, the overall condition state of the segment is calculated as shown in Table 18.

Table 18. Calculation of Pavement Overall Condition Measure

Overall Segment Condition Rating	AC or JPCP	CRCP	Measure
Good	All 3 metrics (IRI, Cracking, and Rutting/Faulting) rated as "Good"	IRI and Cracking are rated as "Good"	% of lane miles in "Good" condition
Poor	2 or 3 metrics rated as "Poor"	IRI and Cracking are rated as "Poor"	% of lane miles in "Poor" condition

Current performance measures for SHS pavement inventory (Figure 74) indicate that 21,488 lane miles (or 43%) are in good condition, 27,580 lane miles (55%) are in fair condition, and 1,260 lane miles (2.5%) in poor condition.







Distribution of the total travel (Figure 75) indicates that only about 2.5% of total travel is on pavement with poor condition, while 43% is on pavement with good condition.



Total Travel By Pavement Condition

Figure 75: Total Annual Travel on Pavement in Different Condition States

Figure 76, Figure 77, and Figure 78 show pavement length in different condition states broken down by NHS class (NHS and non-NHS), functional class, and surface type, respectively.





SHS Pavement Condition By NHS Class

Figure 76: Total Length of Pavement in Different Condition States for NHS and non-NHS

The total lane miles and percentage of Good, Fair, and Poor pavement from our analysis are close to the numbers reported in Caltrans 2018 Pavement Report Card for the interstate system. However, the numbers for the non-interstate NHS in the Report Card included both the SHS non-interstate NHS (22,490 lane miles) as well as local (off SHS) NHS segments (approximately 19,426 lane miles), and therefore they were different from the numbers shown in Figure 76.





#### SHS Pavement Condition by Functional Class

(Based on HPMS 2018 Data)

Figure 77: Total Length of Pavement Assets in Different Condition by Functional Class





#### SHS Pavement Inventory Condition By Surface Type

Figure 78: Total Length of Pavement Assets in Different Condition by Surface Type



# B.4 Development of Pavement Condition Indices

Individual indices were developed to measure and evaluate the four main surface distresses: cracking, roughness, rutting (for flexible pavement), and faulting (for rigid pavement). An overall Pavement Condition Index (PCI) is then calculated based on the individual distress indices. The methodology to calculate distress and condition indices follows the approach developed by the Institute for Transportation and used in Iowa DOT<sup>2</sup>. To differentiate the calculated PCI from the ASTM standard measure, this PCI will be referred to as PCI Version 2 (or PCI\_2). For simplicity, the indices are defined using a 100-point scale, where 100 indicates "as new" condition (or no distress) and 0 indicates "worst condition" (i.e., distresses exceed a defined failure threshold).

Roughness index is calculated based on IRI, whereas IRI values <= 30 inch/mile are considered as a perfect index (100) and values >=250 are considered very poor (0 index). FHWA recommends that an IRI < 95 inch/mile is considered smooth (i.e., good) and an IRI > 170 inch/mile is considered rough (i.e., poor). Equation 1 shows the formula for calculating the Roughness Index for IRI values between 30 and 250.

Roughness Index = (250-IRI) \* 100/220

Equation 1

Calculation of the Rutting Index was based on the reported rut depths available in HPMS data. According to the NCHRP Synthesis report, a threshold of 12 millimeter (approximately 0.5 inch) was found represent a safety concern (i.e., 0 index). Equation 2 shows the formula for calculating the Rutting Index for ruth depth values < 0.5 inch.

Rutting Index = (0.5-Rutting Depth) \* 100/0.5 Equation 2

Faulting Index for rigid pavement is calculated based on the reported faulting, whereas faulting values <=0.05 inches are considered as a perfect index (100) and values >=0.15 inches are considered very poor (0 index). Equation 3 shows the formula for calculating the Faulting Index for values between 0.05 and 0.15 inches.

Faulting Index = (0.15- Faulting) / (100/0.1)

Equation 3

The original calculation of cracking index is based on combining and weighting of cracking indices for each type of cracking (longitudinal, transverse, fatigue, and wheel-path cracking). However, since the HPMS data does not include detailed information on cracking types, the overall percentage of total cracked area was used. Cracking index is calculated by scaling the percentage cracking reported in the HPMS data, while considering cracking percentage >= 30 to indicate a very poor or failed segment (i.e., 0 cracking index). Equation 4 shows the formula for calculating cracking index.

Cracking Index = (30-Cracking Percentage) \* 100/30

Equation 4



<sup>&</sup>lt;sup>2</sup> Bektas F, O. Smadi, and I. Nenanya. 2015. Pavement Condition: A New Approach for the Iowa DOT. Transportation Research Record: Journal of the Transportation Research Board, No. 2523, pp. 40–46.
A pavement segment overall condition index (PCI\_2) is calculated by combining individual indices by weighting factors. Equations 5 and 6 below show the calculation of the PCI\_2 condition index for flexible and rigid pavement segments, respectively.

- PCI\_2<sub>AC</sub> = 0.4\* Roughness Index +0.4\* Cracking Index + 0.2\* Rutting Index Equation 5
- PCI\_2JPCP and CRCP = 0.4\* Roughness Index +0.4\* Cracking Index + 0.2\* Faulting Index Equation 6

Figure 79 shows the distribution of the calculated SHS pavement condition index against the FHWA condition measures. The pavement segments in good condition showed a median condition index (PCI\_2) of 90, whereas segments in fair condition have a median PCI\_2 of 70, and those in poor condition have a median of 23. The interquartile range (IQR) of the pavement segments showed that 50% of segments in good condition have PCI\_2 between 87 and 97, whereas the range for fair condition segments was between 56 and 79, and for poor condition segments was between 17 and 29.



Condition Index Distribution by FHWA Performance Measure

Figure 79: Correlation of Calculated PCI\_2 and FHWA Performance Measures

Figure 80 shows the distribution of pavement condition index for NHS and non-NHS highways. Interstate, non-interstate NHS, and non-NHS pavement segments have an average PCI\_2 of 85, 80, and 77, respectively.



IDS



Figure 80: Condition Index (PCI\_2) Distribution for NHS and non-NHS Highways

#### **B.5 Defining Pavement Groups**

Pavement assets were categorized into a set of groups based on their deterioration and risk characteristics. Groups are assumed to have somewhat homogeneous characteristics in terms of their deterioration rate and/or criticality (or expected consequence of failure). It is important to define groups at an appropriate level of granularity to balance the level of desired accuracy in predicting deterioration and criticality, with the time and effort needed to build group-specific deterioration and risk models.

Analysis of the SHS pavement data showed that pavement distresses and deterioration rates are primarily influenced by surface type, traffic volume, and functional classification. Initially, separate groups were defined for different surface types in the interstate and non-interstate systems. However, the AC non-interstate group was further divided into three sub-groups based on the traffic volume, AADT: Low, Medium, and High. The definition of the AADT thresholds were aligned with the criteria used by Caltrans<sup>3</sup>, where the daily average ESAL levels to describe each of the three categories: Low (ESAL <60,000); Medium (60,000<=ESAL<300,000); High (ESAL >=300,000). Since the ESAL data was not available in HPMS, equivalent AADT was used to define our groups. Making some assumptions for converting ESAL to AADT, AADT thresholds of 4000 and 20,000 were used. Table 19 shows the definition of the 6 pavement groups



<sup>&</sup>lt;sup>3</sup> Wang, Z.and Pyle, T., Implementing a pavement management system: The Caltrans experience, International Journal of Transportation Science and Technology, <a href="https://doi.org/10.1016/j.ijtst.2019.02.002">https://doi.org/10.1016/j.ijtst.2019.02.002</a>

used in our analysis. Figure 81 shows the total number and percentage of each group, in total representing approximately 94% of the SHS pavement inventory.

Group ID	Pavement Characteristics	Number of Segments	Total Length (Lane Miles)
AC Interstate	AC; Interstate	17,013	7,131
AC Non-Interstate High Traffic	AC; Interstate; AADT >20,000	28,432	8,961
AC Non-Interstate Medium Traffic	AC; Interstate; 4,000 <aadt <="&lt;br">20,000</aadt>	52,882	10,234
AC Non-Interstate Low Traffic	JPCP and CRCP; Interstate); AADT <=4,000	60,109	11,029
JPCP_CRCP Interstate	JPCP and CRCP; Interstate	13,879	7,281
JPCP_CRCP Non-Interstate	JPCP and CRCP; Interstate	14,262	5,651
TOTAL		186,577	50,287

Table 19. Definition of SHS Pavement Groups



Figure 81: Number of segments in the defined groups as % of SHS pavement inventory



## B.6 Defining Deterioration models for Pavement Groups

For each of the 6 defined group, models to predict the condition indices of each pavement segment were defined. As described above, calculating the condition index of a pavement segment (PCI\_2) is derived from the segment's indices for the main distresses: cracking, roughness, rutting, and faulting indices. Therefore, models were required to predict progression of the defined distresses in each group.

Models to predict IRI, Cracking, and Rutting were defined for each of the four AC pavement groups, whereas models to predict IRI, Cracking, and Faulting were defined for the two concrete pavement groups. In total, 18 models were defined (three per group) to predict distress progression for each group.

Figure 82 shows an example of examining different distributions to define deterioration model parameters for cracking, IRI, and rutting in the AC-Interstate group.





Figure 82: Examining different distributions to model deterioration of AC Interstate pavement.



Examining the distribution of condition indices with estimated age of pavement segments, and investigating a number of polynomial, exponential, linear, and Weibull functional forms, we found that an exponential distribution seems to correlate well with data and provides reasonable predictions, and therefore were used it to model the progression of each distress. The function for an exponential distribution is given by Equation 7.

$$f(x) = a e^{b X}$$

#### Equation 7

The first parameter, a, represents the value at the base year (i.e., first year data is available), and the second parameter, b, represents the average annual progression (or growth) rate. The best fit of the exponential parameters was determined based on examining data distributions and observing the value of the root-mean-square error (RMSE) for each combination of the parameters. Based on this analysis, the exponential distribution parameters are determined for each distress type in each group (Table 20).

Group ID	Cracking		Roughness		Rutting		Faulting	
	а	b	а	b	а	b	а	b
AC Interstate	1.17	0.2	30	0.08	0.09	0.1		
AC Non-Interstate High Traffic	1.59	0.189	40	0.06	0.07	0.065		
AC Non-Interstate Medium Traffic	2.12	0.179	30	0.077	0.07	0.076		
AC Non-Interstate Low Traffic	1.72	0.189	30	0.079	0.06	0.08		
JPCP_CRCP Interstate	4.86	0.05	40	0.04			0.04	0.03
JPCP_CRCP Non-Interstate	7.06	0.02	40	0.04			0.04	0.03

Table 20. Exponential Parameters (a, b) for Modeling Pavement Distress Progression

Each of the defined models represents the average deterioration of a group of pavement segments. However, in reality, individual pavement segments within a particular group are rarely identical and often deteriorate at different rates. Therefore, predicting the condition indices of a particular pavement segment should always take into consideration the initial values of the distresses. In essence, the defined models should be used to predict the distress progression starting from initial values, as recorded in the HPMS 2018 data. Starting from an initial state, the models can then be used in an incremental recursive manner to predict future values, where the value in a specific year would be calculated based on the initial value known at a previous year. The incremental modeling approach was described in detail in the previous progress report.

Figure 83 shows an example for predicting various condition indices of AC Interstate segment. It also shows predictions of future IRI values for sample pavement segments in different groups.



Once the distresses are predicted for each pavement segment using the defined exponential models, condition indices (IRI\_Index, Rutting\_Index, Faulting\_Index, and Cracking\_Index) can then be calculated using Equations 1, 2, 3, and 4, respectively. The overall condition index (PCI\_2) can then be calculated using Equations 5 and 6, depending on the pavement surface type.



#### EXAMPLE PREDICTIONS OF A PAVEMENT SEGMENT CONDITION (SEGMENT SHS\_005\_P FROM 100.1 TO 100.2)

EXAMPLE PREDICTIONS OF IRI FOR PAVEMENT SEGMENTS IN DIFFERENT GROUPS



• AC Non-Interstate High Traffic (SHS\_082\_P 2.017 to 2.097)

- AC Non-Interstate Low Traffic (SHS\_003\_P 66.8 to 66.9)
- AC Non-Interstate MediumTraffic (SHS\_038\_P 7.9 to 8.0)
- JPCP\_CRCP Interstate (SHS\_005\_P 217.6 to 217.7)

JPCP\_CRCP Non-Interstate (SHS\_099\_P 17.81 to 17.9)

IDS

Figure 83: Example for predicting condition indices of AC Interstate segment (top) and predictions of IRI for pavement segments in different groups (bottom).



# B.7 Risk Model and Criticality Factors

We employed a risk-based approach for lifecycle planning (LCP) of the pavement inventory. Unlike traditional condition-based LCP approach, a risk-based approach has the advantage of combining the pavement condition (or likelihood of failure) and criticality (or consequence of failure) to prioritize and select projects based on systemlevel risk measures. Criticality of pavement sections is typically reflected in the functional classification and traffic volumes.

Under traditional condition-based approaches for selecting projects, pavement assets are typically separated into different asset classes based on their criticality or functional classification. For example, plans may be developed separately for interstate and noninterstate systems, or other functional classification. Funding is also allocated to these different systems based on their relative criticality levels. However, using a risk-based approach, considerations for asset criticality can be made more explicit, allowing us to quantify the impact of investment decisions and project selection on the entire asset inventory and to find the best trade-offs to balance the needs by minimizing overall system-level risk.

A simple criticality model that considers three main factors was used. The factors include: (1) functional classification; (2) total traffic volume; and (3) whether the pavement segment is NHS. For each criticality factor, a "weight" is assigned to reflect its relative importance. The weights assumed for the three factors were: 0.5, 0.2, and 0.3, respectively. A pavement segment "criticality index" was then calculated as a weighted average of the values of the criticality factors, as shown in Equation 8.

Criticality\_Index<sub>i</sub> =  $\sum_{j=1}^{N} W_j CF_j$ 

Equation 8

Where,

*Criticality\_Index*<sub>i</sub> = Pavement segment i Criticality Index

CF <sub>i</sub>	= Value of Criticality Factor j for pavement segment i
-----------------	--------------------------------------------------------

 $W_j$  = Agency-defined weight for Criticality Factor j

N = Number of criticality factors considered

An overall "risk index" for each pavement segment is subsequently calculated based on its condition index (PCI\_2) and Criticality Index (Equation 9).

RI = (100- PCI\_2) \* Criticality Index

Equation 9

Figure 84 shows a summary of the main components of the proposed pavement risk model.





Figure 84: Proposed Pavement Risk Model

#### B.8 Pavement Treatments Models

To achieve the best cost-benefit trade-off, the optimization process evaluates candidate treatments in each year in the planning horizon based on defined applicability constraints, as well as cost and benefit models. In defining treatments models and constraints, several Caltrans documents were used<sup>4</sup>.

A range of treatments for flexible and rigid pavement have been defined including various preservation, rehabilitation, or replacement actions were considered. A simplified version of Caltrans decision trees was implemented to align with rules and constraints governing the applicability of each treatment. The current treatments include six defined for flexible pavement and five defined for rigid pavement. Treatments for flexible pavement include: thin HMA overlay, medium HMA overlay, thick HMA overlay, seal coat, cold-in-place recycling, and full depth reclamation. Treatments for rigid pavement include: diamond grinding, grinding and slab replacement, slab replacement, concrete overlay, and PCC lane replacement. The list of treatments can be easily extended to include other treatments used at Caltrans.



<sup>&</sup>lt;sup>4</sup> Maintenance Technical Advisory Guide Volume I- Flexible Pavement Preservation (2<sup>nd</sup> Edition), 2008

Volume II - Rigid Pavement Preservation 2nd Edition, Framework for treatment Selection, 2007

Wang, Z. and Pyle, T., Implementing a pavement management system: The Caltrans experience, International Journal of Transportation Science and Technology, https://doi.org/10.1016/j.ijtst.2019.02.002

Cost and effectiveness models for each treatment were used to estimate expected total cost and impact when the treatment is applied on a specific pavement segment. Approximate unit costs for these treatments were estimated using published Caltrans documents. Expected improvements for each of these treatments were estimated based on our assumptions and judgment. For a more rigorous pavement planning effort, these assumptions and models will need to be reviewed and refined with Caltrans staff to ensure consistency with current work practices and local experience. Table 21 summarizes the rules used to define the applicability constraints of different treatments.

Treatment	Surface Type	Cracking Area%	IRI (in/mile)	Faulting (in.)	AADT	Through Lanes	Condition Index (PCI_2)
Thin HMA Overlay	AC	5%-20%	<=170		<=60,00 0	Any	40-70
Medium HMA Overlay	AC	5%-30%	95-500		<=100,0 00	Any	30-60
Thick HMA Overlay	AC	30%-100%				Any	10-50
Seal Coat	AC	5%-15%	<=200		<=15,00 0	Any	40-70
Cold-in-Place Recycling (CIR)	AC	20%-60%	Any		>=500	Any	0-60
Full Depth Reclamation	AC	>=30%	Any		>=375	Any	0-40
Grinding	JPCP	1%-5%	95-300	0.1 - 1.0	Any	Any	40-70
Grinding and Slab replacement	JPCP	1%-10%	90-500	0.1 - 1.0	Any	Any	30-70
Slab Replacement	JPCP	1%-10%	95-500	0.1 - 1.0	Any		40-70
Concrete Overlay	JPCP, CRCP	10%-100%	Any		Any	<=6	0-60
PCC Lane Replacement	JPCP, CRCP	>=20%	Any	>=0.1	Any	>=7	0-40

Table 21. Treatments' applicability criteria

Treatments' effectiveness are defined in terms of incremental improvements to different distresses. Examples of improvements include lower roughness, cracking, or rutting in a pavement segment. Table 22 summarizes the unit costs and condition improvement for each of the defined treatments.



Table 22.	Assumed	unit costs	and c	ondition	improvements
	/ toourneu			onation	improvernento

Treatment	Unit Cost	Expected Improvements (Effectiveness)
	(Per Lane Mile)	
Thin HMA Overlay	\$152,000	Reduce IRI by 250 in/mile, and rutting by 1 inch, and cracking area by 30%.
Medium HMA Overlay	\$325,000	Reduce IRI by 500 in/mile, and rutting by 1 inch, and eliminates all existing cracking.
Thick HMA Overlay	\$720,000	Eliminates roughness, rutting, and cracking.
Seal Coat	\$57,000	Reduce IRI by 250 in/mile, and rutting by 1 inch, and eliminates cracking.
Cold-in-Place Recycling (CIR)	\$350,000	Eliminates roughness, rutting, and cracking.
Full Depth Reclamation	\$1,002,000	Eliminates roughness, rutting, and cracking.
Grinding	\$130,000	Reduces faulting by 1 in, and cracking by 5%.
Grinding and Slab replacement	\$330,000	Reduce roughness by 500 in/mile, cracking area by 50%, and faulting by 1 in.
Slab Replacement	\$100,000	Eliminates roughness, cracking, and faulting.
Concrete Overlay	\$475,000	Eliminates roughness, cracking, and faulting.
PCC Lane Replacement	\$2,600,000	Eliminates roughness, cracking, and faulting.

### B.9 System-Level Condition and Risk Metrics

The optimization objective function used for project selection is formulated to maximize system-level condition or minimize system-level risk index at the lowest lifecycle cost. These two system-level measures are calculated using a weighted average value based on total length of pavement segments (in lane miles) to represent the overall system



condition and risk levels. System-level weighted average condition index (WACI) and risk index (WARI) are calculated as shown in Equations 10 and 11, respectively.

$$WACI = \frac{\sum_{i=0}^{N} PCI_i Length_i}{\sum_{i=0}^{N} Length_i}$$
Equation 10  
$$WARI = \frac{\sum_{i=0}^{N} RI_i Length_i}{\sum_{i=0}^{N} Length_i}$$
Equation 11  
Where,

*WACI* = System-level weighted-average condition index

WARI	= System-level weighted-average risk index	
Length <sub>i</sub>	= Length of Pavement Segment i	

- $PCI_i$  = Condition index of Pavement Segment i
- $RI_i$  = Risk index of Pavement Segment i
- N = Number of Pavement Segments considered in scenario

## B.10 Preliminary Planning Scenarios and Trade-off Analysis

The multi-objective optimization model stochastically searches all possible combinations of pavement segments and feasible treatments to find a set of optimal solutions, each representing a candidate annual project list. The cost, benefit, and applicability rules of treatments are evaluated to identify the optimal solutions. A subset of the solutions that satisfy financial constraints and condition and risk targets are selected for further evaluation and trade-off analysis. The selected project list is then applied to update the condition of pavement segments for the following planning period. In multi-year scenarios, this analysis is repeated for every year. Resulting project lists are then used to quantify relationships between funding levels and system-level performance and risk measures.

The multi-objective optimization algorithm for pavement planning uses the pavement risk model to select projects, on a year-by-year basis, and optimize long-range investments by minimizing system-level risk at the lowest lifecycle cost. The algorithm has been implemented in our Asset Optimizer<sup>™</sup> software. For more details on the algorithm, please refer to our previous report on bridge planning.

Based on the lifecycle and treatments models, we defined initial planning scenarios to assess the accuracy of these models, investigate the impact of varying budget levels, and estimate the financial requirements for maintaining the SHS pavement inventory over the next 10 years (2020-2030). These initial scenarios will be revised to align with Caltrans estimated funding and targets.

Two sets of preliminary scenarios were defined to determine annual project lists over 10year planning horizon, which include: (1) Budget scenarios to assess the impact on system-level condition and risk levels; and (2) Target scenarios to evaluate budget



requirements to achieve system-level performance and risk objectives. The initial scenarios defined are:

- (1) A baseline Do-Nothing scenario to determine the impact of zero investment over 10-years (2020-2030).
- (2) The current 4-year SHOPP scenario (2020-2023), assuming the planned SHOPP investment levels: \$689 million, \$586 million, \$1.845 billion, and \$1.387 billion.
- (3) A 10-year budget scenario (2020-2030) that assumes the same SHOPP investment levels for the first 4-years (as in the previous scenario) and a fixed investment level for the remaining year similar to the level in 2023 (\$1.387).
- *(4)* Three 10-year budget scenarios (2020-2030), assuming fixed annual budget of \$600 million, \$800 million, and \$1 billion.
- (5) A condition target scenario to assess financial requirements to maintain status quo system-level condition index of 75, over 10-years (2020-2030), assuming unlimited budget.

No constraints were imposed on the budget splitting among different types of treatments. An average annual inflation rate was assumed to be 4% for all scenarios.

Scenario results show future condition and risk trends (in terms of system-level average condition and risk indices), detailed information on condition and risk measures of each pavement segment, as well as annual cost and work type of projects. The impact of each scenario on system-wide condition and risk levels was assessed and compared with other scenarios.

Figure 85 shows the system weighted-average condition and risk indices over the 10year planning horizon under five different scenarios. Figure 86 shows a sample of predicted performance variables under various scenarios. The shown performance variables include cracking area percentage, IRI, cracking index, and roughness index. Figure 87 shows partial results for a typical scenario (\$1 billion), showing the predicted average condition indices, FHWA performance measures, and total cost of projects by treatment type and by asset group. Figure 88 shows a map of the selected projects for the example \$1 billion scenario.





Figure 85. System-level average condition index (top) and risk index (bottom) under example planning scenarios.





AVERAGE CRACKING AREA% UNDER DIFFERENT SCENARIOS

Figure 86. Cracking and roughness distresses and condition indices under example planning scenarios.



AVERAGE CRACKING\_INDEX



**\$1 BILLION SCENARIO - WEIGHTED AVERAGE CONDITION** 

\$1 BILLION SCEANRIO PERFORMANCE MEASURE (BY LENGTH)



• IRI\_Index • Rutting\_Index • Cracking\_Index • PCI\_2

\$1 BILLION SCENARIO- TOTAL COST OF PROJECTS BY WORK TYPE



\$1 BILLION SCENARIO- TOTAL COST OF PROJECTS BY ASSET GROUP



Figure 87. Example results of the \$1 billion scenario showing average condition indices (top-left), performance measures (top-right), and total cost of recommended treatments by type (bottom-left) and group (bottom-right).

IDS





Figure 88. A map of 10-year pavement treatments selected under \$1 Billion scenario



# Appendix C:

# Comparison of Optimization results and SHOPP Project Portfolio

An attached Excel workbook includes different tabs comparing the results of the optimization SHOPP 10-year scenarios and 2020 official SHOPP projects.

