Keene Pavement

Kern County, California

District 09-KER- 58-77.2/R88.56

EA/Project ID: 09-37920/0919000006

DRAFT

Initial Study with Proposed Mitigated Negative Declaration

Volume 1 of 2

Prepared by the
State of California Department of Transportation

March 2022

General Information About This Document

What's in this document:
The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts of alternatives being considered for the proposed project in Kern in California. The document explains why the project is being proposed, the alternatives being considered for the project, the existing environment that could be affected by the project, potential impacts of each of the alternatives, and proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- Please read the document. Additional copies of the document and the related technical studies are available for review at the Caltrans district office at 500 South Main Street, Bishop, California 93514.

- Tell us what you think. If you have any comments regarding the proposed project, please send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to: Cecilia Boudreau, District 09 Environmental Division, California Department of Transportation, 500 South Main Street, Bishop, California 93514. Submit comments via email to: cecilia.boudreau@dot.ca.gov.

- Submit comments by the deadline: April 28, 2022.

What happens next:
After comments are received from the public and the reviewing agencies, Caltrans may 1) give environmental approval to the proposed project, 2) do additional environmental studies, or 3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans could design and construct all or part of the project.

Printing this document: To save paper, this document has been set up for two-sided printing (to print the front and back of a page). Blank pages occur where needed throughout the document to maintain proper layout of the chapters and appendices.

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please write to or call Caltrans, Attention: Cecilia Boudreau, District 9 Environmental Division, 500 South Main Street, Bishop, California 93514; (916) 307-0640 (Voice), use the California Relay Service 1-800-735-2929 (Teletype to Voice), 1-800-735-2922 (Voice to Teletype), 1-800-855-3000 (Spanish Teletype to Voice and Voice to Teletype), 1-800-854-7784 (Spanish and English Speech-to-Speech), or 711.

09-KER-58-58-77.2/R88.56
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The California Department of Transportation (Caltrans) proposes to upgrade existing pavement, guardrail, bridge rail, median barrier, drainage, and lighting on State Route 58 from postmile 77.20 to postmile R88.56. The project will also involve realigning the curves at postmiles 77.7, 78.5, R83.2, and 87.1 as well as potential construction of a wildlife undercrossing and/or culvert modifications within the limits of the future State Route 58 Truck Climbing Lane project (Post mile 76.3 – 79.5).

DRAFT INITIAL STUDY
with Proposed Mitigated Negative Declaration

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation
and
Responsible Agencies: California Transportation Commission, California Department of Fish and Wildlife, and United States Army Corp of Engineers

_____
Kirsten Helton
Deputy District Director, Planning and Environmental
California Department of Transportation
District 9
CEQA Lead Agency

_____
Date

The following individual can be contacted or more information about this document:

Cecilia Boudreau, Environmental Office Chief
500 S. Main Street, Bishop, CA 93514
cecilia.boudreau@dot.ca.gov
(916) 307-0640

DRAFT
Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number:

District-County-Route-Post Mile: 09-KER-58-58-77.2/R88.56

EA/Project Number: 9-37920/0919000006

Project Description

The California Department of Transportation (Caltrans) proposes to upgrade existing pavement, guardrail, bridge rail, median barrier, drainage, and lighting on State Route 58 from postmile 77.20 to postmile R88.56. The project will also involve realigning the curves at postmiles 77.7, 78.5, R83.2, and 87.1 as well as potential construction of a wildlife undercrossing and/or culvert modifications within the limits of the future State Route 58 Truck Climbing Lane project (Post mile 76.3 – 79.5). Constructing this mitigation structure in advance would serve to address potential impacts to wildlife habitat connectivity and movement as a result of the construction and operation of the State Route 58 truck climbing lane by enhancing habitat connectivity and promoting safe movement of wildlife under the existing highway.

Determination

An Initial Study has been prepared by Caltrans, District 09

On the basis of this study, it is determined that the proposed action with the incorporation of the identified mitigation measures will not have a significant effect on the environment for the following reasons:

- The project would have no impacts to Agriculture, Air Quality, Energy, Geology and Soils, Hazards and Hazardous Materials, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Tribal Cultural Resources, and Utilities and Service Systems.

- The project would have less than significant impacts to Aesthetics, Cultural Resources, Greenhouse Gas Emissions, Hydrology and Water Quality, Transportation, and Wildfire

- With the following mitigation measures, the project will have less than significant impact to Biological Resources:

    - BIO 1 - The proposed mitigation for permanent impacts to riparian and aquatic resources is to purchase in-lieu fee credits or mitigation bank credits from an approved mitigation bank, at a mitigation ratio

negotiated with the resource agencies. On-site erosion control seeding will occur in temporary and permanently impacted areas with native seed mix.

_____

Kirsten Helton
Deputy District Director, Planning and Environmental
California Department of Transportation
District 9
CEQA Lead Agency

_____

Date

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Chapter 1 Proposed Project

1.1 Introduction

The Keene Pavement project is located in Kern County on State Route 58 near Tehachapi from 0.1 mile east of Bealville Road (postmile 77.20) to Tehachapi Creek Branch Bridge (postmile R88.56).

1.2 Purpose and Need

The project "purpose" is a set of objectives the project intends to meet. The project "need" is the transportation deficiency that the project was initiated to address.

1.2.1 Purpose

Restore the facility to a state of good repair so that the roadway will be in a condition that requires minimal maintenance and to extend the service life of the facility while reducing collisions at the four identified curve locations.

1.2.2 Need

The pavement within the project limits is exhibiting distress and structural deficiencies. This has caused deterioration that, if continued, will severely decrease the ride quality of the existing roadway. The median barrier, guardrail and lighting do not meet current standards and need to be replaced. In addition, four curves at post miles 77.7, 78.5, R83.2, and 87.1 have been selected for realignment due to collision concentrations at these locations.

Regional and System Planning

This segment of State Route 58 is part of the National Highway System, Freeway & Expressway System, National Network, and Interregional Road System, and is designated as a Strategic Interregional Corridor and Priority Interregional Facility. It is classified as a Principal Arterial and is an important route for interregional travel. The project is in alignment with Policy 2 (Stewardship and Efficiency) and Policy 4 (System Performance) of the District System Management Plan. The project also is consistent with the State Route 58 Corridor System Management Plan which identifies maintaining and rehabilitating the existing facility as the current rehabilitation strategy. Public workshops held during the preparation of the 2018 Kern Council of Governments Regional Transportation Plan identified the following principles as the top three regional priorities: Enhance economic vitality, conserve energy and natural resources, and use and improve existing assets and infrastructure. Regional Transportation Plan Action Item 15.3 also

identifies the need to “Maintain and enhance existing roadway infrastructure and vehicles with emerging technology to provide for more efficient use”.

Traffic

Current Average Annual Daily Traffic in project area is 23,200 vehicles per day. Of these vehicles, approximately 34.7% are trucks. Forecasted Average Annual Daily Traffic is expected to increase to approximately 23,390 by 2030 and 26,280 by 2045.

Collision Analysis

Table 1 summarizes collision rates State Route 58 within the project limit, from postmile 77.20 to postmile R88.56. Collision rates are calculated from the Traffic Accident Surveillance and Analysis System and are depicted per million vehicle miles driven from January 1, 2018 to December 31, 2020.

Table 1: State Route 58 Keene Pavement Project Collision Rates					
ACTUAL AVERAGE (per million vehicle miles)			*STATEWIDE AVERAGE (per million vehicle miles)*		
Fatal Collisions	*Fatal + Injury Collisions*	*Total (1)*	*Fatal Collisions*	*Fatal + Injury Collisions*	*Total (1)*
0.007	*0.24*	*0.76*	*0.007*	*0.16*	*0.46*

(1) All reported collisions (includes Property Damage Only (PDO) Collisions)

Table 1 summarizes and compares the actual collision rates for the segment of Kern 58 between PM 77.20 and PM R 88.56 to the average rates for similar facilities throughout the State. The total collision rates include all reported collisions: Fatal, Injury, and Property Damage. The rate of fatal plus injury (.24) and total collision rate (.76) is above average when compared with similar facilities statewide (Fatal plus Injury .16 and Total .46), and the rate of fatal collisions is equal to the average for similar facilities statewide.

Additionally, the project scope proposes realignment of four curves in order reduce collisions. Table 2 summarizes collision rates at these four curves located at post miles 77.7, 78.5, R83.2, and 87.1. The table depicts existing collision rates from the Traffic Accident Surveillance and Analysis System depicted per million vehicle miles driven from October 1, 2018 to September 30, 2021.

Table 2: Accident Rates at Proposed Curve Realignments						
Curve Location	ACTUAL AVERAGE (per million vehicle miles)			STATEWIDE AVERAGE (per million vehicle miles)		
	Fatal	Fatal + Injury	Total (1)	Fatal	Fatal + Injury	Total (1)
77.7	0	0.21	1.46	0.007	0.14	0.36
78.5	0	0.42	1.46	0.007	0.14	0.37
R83.2	0	1.04	2.6	0.007	0.16	0.46
87.1	0.318	0.32	0.64	0.007	0.16	0.46

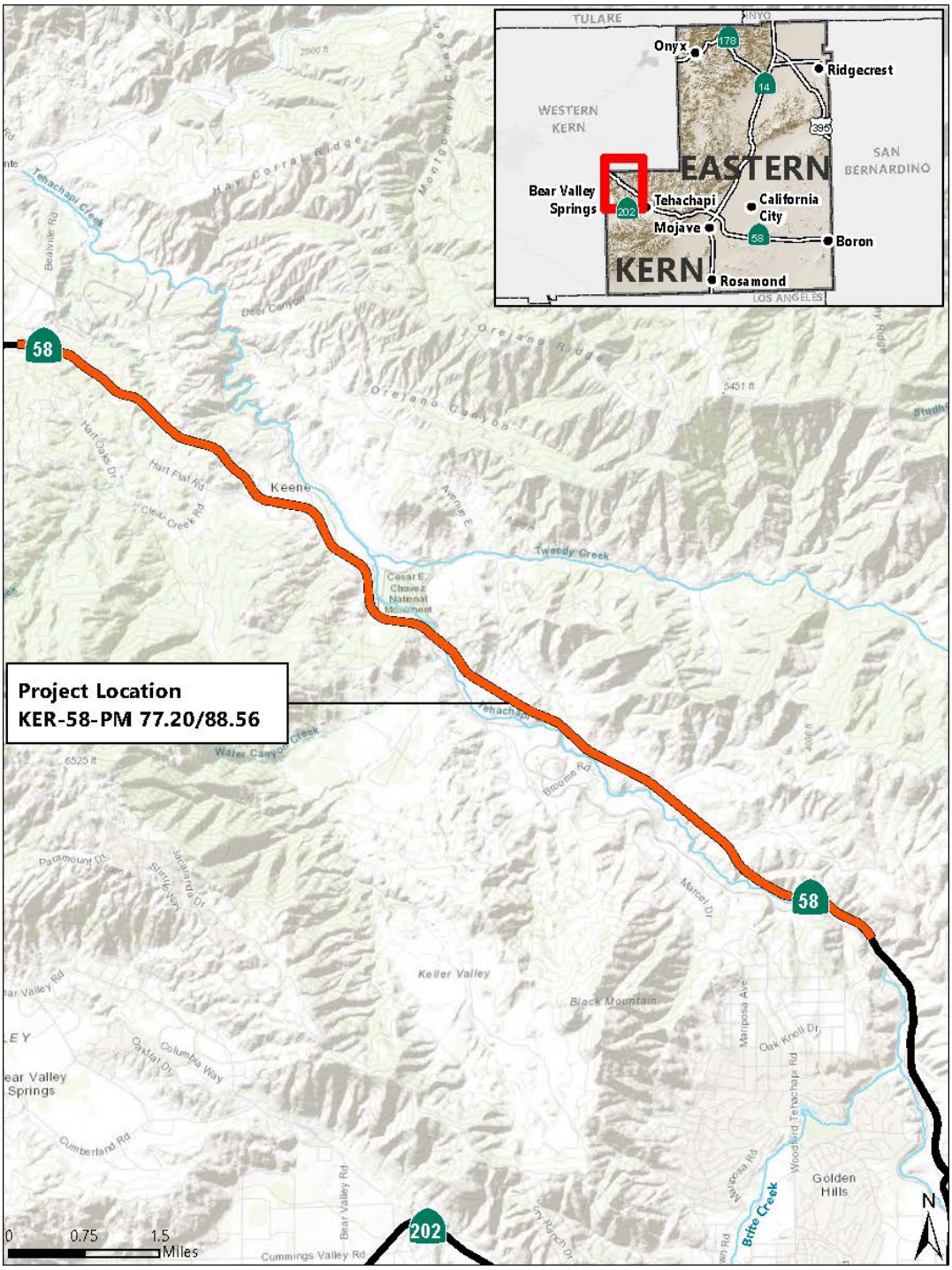
(1) All reported collisions (includes Property Damage Only (PDO) Collisions)

Analysis of Table 2 shows a total rate of fatal plus injury collision and Total collision rate above average at all four curve correction locations when compared with similar facilities statewide. At one location, postmile 87.1 the rate of Fatal collisions is above average when compared to similar facilities statewide. There were no Fatal collisions at the other three curve locations during the 36-month study period. These locations have subsequently been selected for realignment due to above average rates of Fatal plus Injury collisions and Total collisions.

1.3 Project Description

The California Department of Transportation (Caltrans) proposes to upgrade existing pavement, guardrail, bridge rail, median barrier, drainage, and lighting on State Route 58 from postmile 77.20 to postmile R88.56. The project will also involve realigning the curves at postmiles 77.7, 78.5, R83.2, and 87.1 as well as potential construction of a wildlife undercrossing and/or culvert modifications within the limits of the future State Route 58 Truck Climbing Lane project (Post mile 76.3 – 79.5). Constructing this mitigation structure in advance would serve to address potential impacts to wildlife habitat connectivity and movement as a result of the construction and operation of the State Route 58 truck climbing lane by enhancing habitat connectivity and promoting safe movement of wildlife under the existing highway.

Figure 1-1 Project Location and Vicinity Map



1.4 Project Alternatives

The project includes a build alternative and a no-build alternative and two design options, consisting of different pavement strategies.

1.4.1 Build Alternative

The proposed build alternative will include one pavement strategy, Design Option One or Design Option Two, to be selected by the project team during the design phase of project development. Additionally, the features of the build alternative include the following:

- All existing median barrier, bridge railing, guardrail and signs will be replaced to meet current standards.
- Lighting will be replaced to meet current collision breakaway standards for light poles and new lighting will be added to Broome Road interchange and Hart Road Road areas.
- Vehicle count stations will be replaced
- Curves at postmile 77.7, 78.5, R83.2, and 87.1 would be straightened. Additional right-of-way would be needed at PM 77.7 and postmile 87.1. A retaining wall would be needed at PM 78.5 to stabilize the cut slope.
- Drainage inlets, longitudinal drainage systems, slotted pipes, dikes, and overside drains will be replaced or adjusted. Existing drainage trash racks will be removed and replaced.
- Replace or repair approximately four existing cross-culverts
- Shoulders will be built to traveled way standards.
- Specific culverts between post miles 76.3 and 79.5 may be modified to enhance wildlife habitat connectivity and promote safe movement of wildlife.

Design Options

In addition to scope features mentioned above, the project will include one of the following design options:

Option 1

Remove existing concrete pavement, asphalt concrete, and portions of the base and subbase to maintain existing elevation from edge of pavement to edge of pavement. Existing pavement will be replaced with1.1 feet of Jointed Plain Concrete Pavement on 0.25 feet of Hot Mix Asphalt on a 0.7-foot aggregate subbase.

Option 2

Design Option 2 incorporates a pavement strategy option accepted for implementation from the Value Analysis study prepared for the project:

Construct a Continuously Reinforced Concrete Pavement overlay or inlay. At overlay locations this would raise the roadway profile, requiring installation of short height retaining walls in some locations. An overlay of 0.95-foot Continuously Reinforced Concrete Pavement will be placed throughout the project with 0.25-foot Hot Mix Asphalt bond breaker in-between areas of existing concrete pavement. At inlay locations, there will be removal of 1.9-feet of the existing pavement section and placement of 0.95-foot Continuously Reinforced Concrete Pavement on 0.25-foot Hot Mix Asphalt on 0.7-foot aggregate subbase.

1.4.2 No-Build (No-Action) Alternative

No improvements would be constructed for the project under the No-Build Alternative. The No-Build alternative would maintain the existing facilities within the project limits on State Route 58 as is, with continued routine maintenance activities. This alternative would not address deteriorating pavement or collision rates at the identified curve correction locations and would not meet the project Purpose and Need.

1.5 Identification of a Preferred Alternative

At this time, Caltrans has not identified a preferred alternative. This decision will be made after consideration of public comments. After the public circulation period, all comments will be considered, and the Department will select a preferred alternative and make the final determination of the project's effect on the environment. This section will be updated for the Final Environmental Document and make note of the identification of a preferred alternative.

1.6 Standard Measures and Best Management Practices Included in All Build Alternatives

Caltrans includes standard specifications for the purposes of reducing impacts to the environment on every project constructed. These specifications include dust control, provisions for the handling of nesting birds, policies on the handling of hazardous materials and construction noise levels, et cetera. These standard specifications are incorporated as project features and are included as part of the project description. The significance of impacts under CEQA resulting from the project are considered after implementation of these measures.

1.7 Discussion of the NEPA Categorical Exclusion

This document contains information regarding compliance with the California Environmental Quality Act (CEQA) and other state laws and regulations. Separate environmental documentation, supporting a Categorical Exclusion determination, will be prepared in accordance with the National Environmental Policy Act. When needed for clarity, or as required by CEQA, this document may contain references to federal laws and/or regulations (CEQA, for example, requires consideration of adverse effects on species identified as a candidate, sensitive, or special-status species by the U.S. National Marine Fisheries Service and the U.S. Fish and Wildlife Service—that is, species protected by the Federal Endangered Species Act).

1.8 Permits and Approvals Needed

The following permits, licenses, agreements, and certifications are required for project construction:

Agency	Permit/Approval	Status
California Department of Fish and Wildlife	1602 Agreement for Streambed Alteration	Application will be submitted during the project's final design phase.
California Water Quality Control Board, Lahontan Region	401 Certification/Waste Discharge Requirement permit	Application will be submitted during the project's final design phase.
United States Army Corps of Engineers	404	Application will be submitted during the project's final design phase.
California Transportation Commission	California Transportation Commission vote to approve funds	Following the approval of the Final Environmental Document, the California Transportation Commission will be required to vote to approve funding for the project.

Chapter 2 CEQA Evaluation

2.1 CEQA Environmental Checklist

2.1.1 Aesthetics

Considering the information in the Visual Impact Assessment Memo dated January 6, 2022, the following significance determinations have been made:

Except as provided in Public Resources Code Section 21099:

Question—Would the project:	CEQA Significance Determinations for Aesthetics
a) Have a substantial adverse effect on a scenic vista?	**No Impact**
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	**No Impact**
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	**Less Than Significant Impact**
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	**No Impact**

Affected Environment

The proposed project is located at the boundary separating the Southern Sierra Nevada range to the north and the Tehachapi Mountains to the south in Southern California. This region also separates the San Joaquin Valley to the west with the Mojave Desert to the east.

The landscape is characterized by mountains covered with a mix of grasslands and oak woodlands. Unvegetated rock outcrops are also common within the project viewshed. The land use within the corridor or project

corridor is primarily undeveloped with small communities and rural housing. Although scenic in nature, State Route 58 is not listed as eligible or officially designated within the California State Scenic Highway System.

Environmental Consequences

c) The project scope includes cutting back four existing slopes. Depending on the amount of additional excavation that occurs at the four cut slope locations, the level of visual impacts may be moderate to high. Excavation will require the removal of vegetation growing on pre-existing cut slopes and potentially trees and shrubs adjacent to the cuts. The traveling public will see unvegetated cut slopes until revegetation efforts become re-established. Depending on the height and length of the retaining wall, these new structures may create a moderate to high level of visual impacts by increasing the built environment in a somewhat natural setting.

Avoidance, Minimization, and/or Mitigation Measures

c) If the proposed retaining walls are higher than the standard safety barrier height, aesthetic treatment of the visible surface shall be considered. See-through bridge rail on the four bridges shall be considered. This type of bridge railing allows the traveling public to see more of the adjacent valleys from the elevated portions of the roadway. All disturbed cut slopes shall be revegetated with native grass and shrub species commonly found in the project area. To minimize the visual impacts of slope excavation as seen from the roadway, the top and sides of the proposed cut slopes should be rounded so they blend into the adjacent natural topography.

2.1.2 Agriculture and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Per a search of the California Department of Conservation's Important Farmland Mapping Tool, there are no designated Prime, Unique or Farmlands of Statewide Importance in or near the proposed project limits. The project will not have any effect on protected Farmlands, including those under the

Williamson Act, or convert any farmlands into non-agricultural use (https://maps.conservation.ca.gov/DLRP/CIFF).

Impacts to timberland are analyzed as required by the California Timberland Productivity Act of 1982 (California Government Code Sections 51100 et seq.), which was enacted to preserve forest resources. Like the Williamson Act, this program gives landowners tax incentives to keep their land in timber production. Contracts involving Timber Production Zones (are on 10-year cycles. Searches of the California Department of Conservation website and the California Department of Forestry and Fire Protection website showed no designated timberlands or Timber Production Zones in or near the project vicinity. The project will have no effect on protected Timberlands since none exist in the project area.

Question—Would the project:	**CEQA Significance Determinations for Agriculture and Forest Resources**
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	**No Impact**
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	**No Impact**
c) Conflict with existing zoning, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	**No Impact**
d) Result in the loss of forest land or conversion of forest land to non-forest use?	**No Impact**
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use?	**No Impact**

2.1.3 Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

Considering the information in the Air/Noise/Hazardous Waste/Water/Paleontology Study Memo dated February 4, 2022, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Air Quality
a) Conflict with or obstruct implementation of the applicable air quality plan?	**No Impact**
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	**No Impact**
c) Expose sensitive receptors to substantial pollutant concentrations?	**No Impact**
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	**No Impact**

2.1.4 Biological Resources

Considering the information in the Natural Environmental Study dated January 1, 2022 the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Biological Resources
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or National Oceanic Atmospheric Administration Fisheries?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Biological Resources
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	**Less Than Significant Impact With Mitigation Incorporated**
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	**No Impact**
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	**Less Than Significant Impact**
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	**Less Than Significant Impact**
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	**No Impact**

Affected Environment

b) Tehachapi Creek runs along the southern end of State Route 58 until it crosses under the highway at Tehachapi Creek Bridge (PM 82.7). Much of the creek is outside the project impact area. However, many of the overside drains and culverts likely drain into the Creek. According to the National Wetland Inventory, Tehachapi Creek consists of riverine features, intermittent stream, areas of seasonal flooding, and freshwater/shrub wetland areas. Several unnamed intermittent streambeds and riparian vegetation exist within the project area. However, there are no identified wetlands within the project area.

d) The California Essential Habitat Connectivity Project identifies habitat within the project area as essential connectivity area for wildlife passage from the Sierra Nevada Range through the Tehachapi Mountains and onward to the Coastal and Southern California Mountain Ranges. Observed species include mule deer, elk, mountain lion, and black bear. State Route 58 within

the project area is a four-lane freeway (two eastbound and two west bound lanes) separated by a 5 to 6 foot tall concrete median barrier. This existing barrier may inhibit wildlife from crossing the highway due to their inability to scale the barrier. In addition, there are drainage debris structures located on many existing culverts that inhibit medium-large species of wildlife from physically entering or exiting these culverts.

e) Three species of oaks were observed within the project area: Live Oak, Valley Oak, and Blue Oak. While none of these species have special status or listing within federal or state regulations, oak woodlands are listed by The California Department of Fish and Wildlife as Sensitive Natural Communities due to the rarity of the community in the state or throughout its entire range (globally). Oak are relatively slow growing trees and clearing land for uses such as agriculture, grazing and, urban development has caused a decline of oaks statewide. Oak trees provide foraging and nesting habitat for a variety of bird species and various mammal species.

Environmental Consequences

b) Replacement of culverts and other drainage improvements will result in 0.25 acre of permanent impacts to riparian/streambed, including Tehachapi Creek. There are no anticipated impacts to wetlands. Temporary impact areas are estimated to be between 0.50 and 0.75 of an acre.

d) Temporary disruption of wildlife attempting to cross under State Route 58 may occur during construction in locations where the Keene Pavement project plans to work on culverts (postmile 87.12 and 87.4.) As part of the proposed future State Route 58 Truck Climbing Lane project, Caltrans is currently studying wildlife connectivity to identify potential priority areas to address and develop wildlife connectivity features that may be included on this project and/or future projects that would reduce wildlife vehicle collisions and enhance wildlife connectivity with a focus on large to medium sized mammals. This information could be utilized in this project and in the future to determine (1) where wildlife fencing could be installed along the roadway to funnel wildlife to existing high-priority structures, (2) whether or not existing structures are adequate for wildlife passage or need enhancement, and/or (3) if new crossing structures would be needed to provide safe passage for wildlife species under the highway.

e) Approximately 28 individual oak trees may be impacted as a result of cut slopes. These potential impacts may not only affect individual oak trees but also wildlife species that could use these trees as foraging, nesting, roosting, and/or denning habitat.

Avoidance, Minimization, and/or Mitigation Measures

b) BIO 1 - The proposed mitigation for permanent impacts to riparian and aquatic resources is to purchase in-lieu fee credits or mitigation bank credits

from an approved mitigation bank, at a mitigation ratio negotiated with the resource agencies. On-site erosion control seeding will occur in temporary and permanently impacted areas with native seed mix.

d) No permanent impacts to habitat connectivity are anticipated from the proposed Keene Pavement Project. However, this project may include construction of a wildlife undercrossing and/or culvert enhancement within the limits of the proposed State Route 58 Truck Climbing Lane project (post mile 76.3-79.5) in advance of the construction of the climbing lane project. These structure(s) would serve as mitigation to address impacts to wildlife movement as a result of truck climbing lane project. The final locations for these mitigation structures will be made by Caltrans Biologists during the design phase of the project.

e) The following avoidance and minimization measures to offset impacts to oak trees include:

- Limit excavation to the maximum extent possible at curve realignment areas to reduce or avoid impacts to Oak trees
- Install Environmentally Sensitive Area fencing around the dripline of oak trees directly adjacent to cut and fill areas to avoid or minimize unnecessary encroachment and prohibit ground disturbance within the root zone.
- Construction activities or placement of structures will be prohibited within the root zone of any retained oak trees.
- Landscaping, trenching, or irrigation systems will not be installed within the root zone of any retained oak trees.
- Sedimentation and siltation will be controlled to avoid filling around an oak tree's base.
- A Biological Monitor shall be on site to monitor oak trees during grading and construction activities.
- A qualified arborist will be consulted to conduct all monitoring.

While mitigation for oak tree impacts under CEQA is not required due to the less than significant impact of the project, Caltrans may restore oak trees in order to comply with State and local policy. A strategy will be developed during the next project phase in conjunction with the Caltrans Landscape Architecture and Caltrans Biologist.

2.1.5 Cultural Resources

Considering the information in the Historic Property Survey Report dated March, 2022, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Cultural Resources
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	**Less Than Significant Impact**
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	**No Impact**
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	**No Impact**

Affected Environment

An Area of Potential Affect for the project was established including the entirety of the project footprint, including staging areas. Vertical affects from excavation averages 4 to 5-foot depth with some portions of existing roadway excavation going to an 8-foot depth. Recorded cultural resources within the project area consist mainly of early to mid-20th century refuse piles, road segments, and survey benchmarks as well as some undated milling features. No evidence of archeological resources or human remains were detected within the project area.

Environmental Consequences

Several sites within the project area are considered eligible for the National Register of Historic Places. However, these sites have not been formally evaluated for inclusion in the National Register. As previously mentioned, sites consist mainly of early to mid-20th stone scatter as well as undated milling features. While resources exist within the project area, these sites will either not be impacted by project footprint or will be protected in entirety by Environmentally Sensitive Area fencing.

Avoidance, Minimization, and/or Mitigation Measures

Environmentally Sensitive Areas will be depicted on project plans and marked in the field to protect resources from potential direct effects during construction. Construction staff will implement “work page and notification” procedures if resources or human remains are discovered.

2.1.6 Energy

The project scope does not include excessive consumption of energy resources nor would it impair any plan considering renewable energy or energy efficiency. The preferred alternative is to restore the facility to a state of good repair

Question—Would the project:	CEQA Significance Determinations for Energy
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	**No Impact**
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	**No Impact**

2.1.7 Geology and Soils

Considering the information in the Air/Noise/Hazardous Waste/Water/Paleontology Study Memo dated February 4, 2022, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	**No Impact**
ii) Strong seismic ground shaking?	**No Impact**
iii) Seismic-related ground failure, including liquefaction?	**No Impact**
iv) Landslides?	**No Impact**
b) Result in substantial soil erosion or the loss of topsoil?	**No Impact**
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	**No Impact**
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	**No Impact**
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	**No Impact**

2.1.8 Greenhouse Gas Emissions

Considering the information in the Climate Change Analysis of Volume 2 dated, February 20, 2022, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Greenhouse Gas Emissions
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	**Less Than Significant Impact**
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	**No Impact**

Affected Environment

The proposed project is in a rural area, composed primarily of a natural-resource-based and agricultural economy. State Route 58 is the main transportation route to and through the area for both passenger and commercial vehicles. The nearest alternate route is State Route 178. The Kern Council of Regional Governments Regional Transportation Plan/Sustainable Communities Strategies provides countywide policy guidance to minimize the cumulative impacts of future development on the environment and to achieve state and regional greenhouse gas reduction goals.

Environmental Consequences

<u>Operational Emissions</u>
The proposed project would not increase the capacity of the highway since it would maintain the same number of lanes as the existing roadway. The

project would not increase capacity, vehicle miles traveled, or vehicle hours traveled.

While some greenhouse gas emissions during the construction period would be unavoidable, once completed, the proposed project would not lead to an increase in operational greenhouse gas emissions.

Construction Emissions
Construction greenhouse gas emissions would result from material processing, onsite construction equipment, and traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence would, where possible, be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

Avoidance, Minimization, and/or Mitigation Measures

The project will implement Caltrans standardized measures (such as construction best management practice) that apply to most or all Caltrans projects. Certain common regulations, such as equipment idling restrictions and development and implementation of a traffic control plan that reduce construction vehicle emissions also help reduce greenhouse gas emissions.

2.1.9 Hazards and Hazardous Materials

Considering the information in the Air/Noise/Hazardous Waste/Water/Paleontology Study Memo dated February 4, 2022, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	**No Impact**
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	**No Impact**
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	**No Impact**
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	**No Impact**
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	**No Impact**
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	**No Impact**

2.1.10 Hydrology and Water Quality

Considering the information in the Air/Noise/Hazardous Waste/Water/Paleontology Study Memo dated February 4, 2022, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Hydrology and Water Quality
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality?	**Less Than Significant Impact**
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Hydrology and Water Quality
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation onsite or offsite;	**No Impact**
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite;	**No Impact**
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	**No Impact**
(iv) impede or redirect flood flows?	**No Impact**
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	**No Impact**
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	**No Impact**

Affected Environment

a) Tehachapi Creek runs roughly parallel to State Route 58 throughout the length of the project limits and all overside drains and culverts are likely discharging into the creek. A number or culverts are marked for replacement. However, the final number and scope of culvert replacement will be finalized during design, which is the next project phase.

Environmental Consequences

a) Replacement of culverts will result in both temporary and permanent impacts to streambeds under the jurisdiction of both the State Water Board and the US Army Corps of Engineers. Permanent impacts, to jurisdictional areas will total 0.25 acre. There are no anticipated impacts to wetlands. Temporary impact areas are estimated to be between 0.50 and 0.75 of an acre.

Avoidance, Minimization, and/or Mitigation Measures

a) Standard measures are included to lessen erosion through the use of standardized Best Management Practices used on all Caltrans projects for stormwater and water quality control. In addition, the project will include permanent erosion control, construction protections for water quality, and a dewatering plan to be developed prior to construction.

2.1.11 Land Use and Planning

Based on a review of land use designation within, and adjacent to, the project limit conducted by Caltrans staff on January 28, 2022, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Land Use and Planning
a) Physically divide an established community?	**No Impact**
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	**No Impact**

2.1.12 Mineral Resources

Considering the information in the Air/Noise/Hazardous Waste/Water/Paleontology Study Memo dated February 4, 2022, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Mineral Resources
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	**No Impact**
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	**No Impact**

2.1.13 Noise

Considering the information in the Air/Noise/Hazardous Waste/Water/Paleontology Study Memo dated February 4, 2022, the following significance determinations have been made:

Question—Would the project result in:	CEQA Significance Determinations for Noise
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	**No Impact**
b) Generation of excessive groundborne vibration or groundborne noise levels?	**No Impact**
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	**No Impact**

2.1.14 Population and Housing

Based on a review of land use designation within, and adjacent to, the project limit conducted by Caltrans staff on January 28, 2022, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Population and Housing
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	**No Impact**
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	**No Impact**

2.1.15 Public Services

Based on a review of land use designation within, and adjacent to, the project limit conducted by Caltrans staff on January 28, 2022, the following significance determinations have been made:

Question:	CEQA Significance Determinations for Public Services
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection?	**No Impact**
Police protection?	**No Impact**
Schools?	**No Impact**
Parks?	**No Impact**
Other public facilities?	**No Impact**

2.1.16 Recreation

Based on a review of land use designation within, and adjacent to, the project limit conducted by Caltrans staff on January 28, 2022, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Recreation
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	**No Impact**
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	**No Impact**

2.1.17 Transportation

Based on a review of the project and relevant transportation policy conducted by Caltrans staff on January 28, 2022, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Transportation
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	**No Impact**
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	**Less Than Significant Impact**
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	**No Impact**
d) Result in inadequate emergency access?	**No Impact**

Affected Environment

State Route 58 is a 4-lane freeway primarily used by local, interregional, freight, and recreational traffic with significant volumes of heavy trucks. State Route 58 acts as a major extension of the Interstate System by connecting Interstate-5 in Bakersfield to Interstate-15 and Interstate-40 in Barstow.

Environmental Consequences

b) The project does not increase highway capacity nor will it induce additional trips or travel. Therefore, there is no impact on vehicle miles traveled. The California Code of regulations 15064.3. (b) (2) states that “Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact.”

Avoidance, Minimization, and/or Mitigation Measures

The project will not increase capacity or vehicle trips, therefore no avoidance, minimization or mitigation measures are being proposed.

2.1.18 Tribal Cultural Resources

Considering the information in the Historic Property Survey Report dated March 2022, the following significance determinations have been made:

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined

in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

Question:	CEQA Significance Determinations for Tribal Cultural Resources
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	**No Impact**
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	**No Impact**

2.1.19 Utilities and Service Systems

Considering the information in the Right of Way Data Sheet dated March 2022, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	**No Impact**
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	**No Impact**
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	**No Impact**
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	**No Impact**

2.1.20 Wildfire

Based on a review of wildfire risk within, and adjacent to the project limit conducted by Caltrans staff on January 22, 2022, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Wildfire
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	**Less than Significant**
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	**No Impact**
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	**No Impact**
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	**No Impact**

Affected Environment

The CalFire Fire Hazard Severity Zone Map of Kern County, CA, shows the project area is in an area designated as “High” (file:///C:/Users/s145389/AppData/Local/Temp/fhszs_map15-2.pdf, 11/7/2007). The project’s scope, under the build alternative, would increase

the width of the highway shoulders but would not increase the risk of wildfires by altering emergency response plans, use infrastructure which otherwise would be put towards controlling wildfires, or expose people to increased risks from fires or their effects. The additional shoulder widths may have a beneficial impact on emergency response as additional room will become available for response vehicles to safely pass stopped vehicles.

Environmental Consequences

Caltrans will implement temporary traffic control measures during construction, such as lane closures and one-way traffic control. As a result, there could be temporary impacts in the event of an evacuation.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans will work with the California Highway Patrol and first responders to ensure that any emergency response or evacuations would take precedence and would not be impacted by temporary traffic control measures.

2.1.21 Mandatory Findings of Significance

Question:	CEQA Significance Determinations for Mandatory Findings of Significance
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	**Less Than Significant Impact With Mitigation Incorporated**
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	**No Impact**

Question:	CEQA Significance Determinations for Mandatory Findings of Significance
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	**No Impact**

Affected Environment

The build alternative will have both temporary and permanent impacts to waters and riparian vegetation (see section 2.1.4).

Environmental Consequences

a) With implementation of mitigation through the purchase of in-lieu fee credits or mitigation bank credits from an approved mitigation bank, at a mitigation ratio to be negotiated with regulatory agencies, the impact would be less than significant.

Avoidance, Minimization, and/or Mitigation Measures

Minimization and mitigation and will be implemented in accordance with BIO 1 (See section 2.1.4)

Appendix A Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY Gavin Newsom, Governor

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-6130
FAX (916) 653-5776
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

August 2020

NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures *"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."*

Caltrans will make every effort to ensure nondiscrimination in all of its services, programs and activities, whether they are federally funded or not, and that services and benefits are fairly distributed to all people, regardless of race, color, or national origin. In addition, Caltrans will facilitate meaningful participation in the transportation planning process in a nondiscriminatory manner.

Related federal statutes, remedies, and state law further those protections to include sex, disability, religion, sexual orientation, and age.

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 324-8379 or visit the following web page: https://dot.ca.gov/programs/civil-rights/title-vi.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Civil Rights, at 1823 14th Street, MS-79, Sacramento, CA 95811; (916) 324-8379 (TTY 711); or at <Title.VI@dot.ca.gov>.

Original signed by
Toks Omishakin
Director

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

List of Technical Studies Bound Separately (Volume 2)

Natural Environment Study

Historical Property Survey Report

Historic Resource Evaluation Report

Historic Architectural Survey Report

Archaeological Survey Report

Air/Noise/Hazardous Waste/Water/Paleontology Study Memo

Visual Impact Assessment Memo

Right of Way Data Sheet

Climate Change Analysis

To obtain a copy of one or more of these technical studies/reports or the Initial Study, please send your request to:

Cecilia Boudreau
District 09 Environmental Division
California Department of Transportation
500 South Main Street, Bishop, California 93514.

Or send your request via email to: Cecilia.boudrea@dot.ca.gov

Or call: (916) 307-0640

Please provide the following information in your request:

Project title: Keene Pavement

General location information: State Route 58, Kern County

District number-county code-route-post mile: 09-KER-58-77.2/R88.56

Project ID number: 09-37920/0919000006