Freight Emphasis Area Guidance for Corridor Planning

JULY 2024

CONTENTS

CONTENTS **2**
INTRODUCTION **4**
STEP 1: SCOPE EFFORT **5**
1.2 KEY ACTIVITIES 5
1.3 OVERARCHING CONCERNS AND CONSIDERATIONS 6
1.4 PROCEDURE TO SCOPE 7
STEP 2: GATHER INFORMATION **8**
2.1 KEY ACTIVITIES 8
2.2 FREIGHT NETWORK CONCERNS 9
2.3 OVERARCHING CONCERNS AND CONSIDERATIONS 10
2.4 FREIGHT SYSTEM PERFORMANCE MEASURES 15
2.5 PROCEDURE TO GATHER INFORMATION 16
STEP 3: CONDUCT BASELINE PERFORMANCE ASSESSMENT **17**
3.1 KEY ACTIVITIES 18
3.2 OVERARCHING CONCERNS AND CONSIDERATIONS 19
3.3 DOCUMENTS AND TOOLS 20
3.4 PROCEDURE TO CONDUCT PERFORMANCE ASSESSMENT 20
STEP 4: IDENTIFY POTENTIAL PROJECTS AND STRATEGIES **23**
4.1 KEY ACTIVITIES 23
4.2 OVERARCHING CONCERNS AND CONSIDERATIONS 23
4.3 PROCEDURE TO IDENTIFY POTENTIAL PROJECTS AND STRATEGIES 24
STEP 5: ANALYZE IMPROVEMENT STRATEGIES **25**
5.1 KEY ACTIVITIES 26
5.2 OVERARCHING CONCERNS AND CONSIDERATIONS 26
5.3 PROCEDURE TO ANALYZE IMPROVEMENT STRATEGIES 27
STEP 6: SELECT AND PRIORITIZE SOLUTIONS **29**
6.1 KEY ACTIVITIES 29
6.2 OVERARCHING CONSIDERATIONS 29
6.3 PROCEDURE TO SELECT AND PRIORITIZE SOLUTIONS 30
STEP 7: PUBLISH/IMPLEMENT CORRIDOR PLANS **32**

7.1 KEY ACTIVITIES 32
7.2 OVERARCHING CONCERNS AND CONSIDERATIONS 33
7.3 PROCEDURE TO PUBLISH AND IMPLEMENT CORRIDOR PLANS 33
STEP 8: MONITOR AND EVALUATE PROGRESS 35
8.1 KEY ACTIVITIES 35
8.2 OVERARCHING CONCERNS AND CONSIDERATIONS 35
8.3 PROCEDURE TO MONITOR AND EVALUATE PROGRESS 36
APPENDIX A: GOALS, ACRONYMS, & KEY TERMS 38
FREIGHT GOALS FOR THE CORRIDOR PLANNING PROCESS 38
ACRONYMS 39
KEY TERMS 41
APPENDIX B: LIST OF RESOURCES AND TOOLS 43
APPENDIX C: POLICY AND LEGISLATION 46
POLICY 46
LEGISLATION 46
APPENDIX D: FUNDING SOURCES 52
DISCRETIONARY GRANT FUNDING PROGRAMS 52

INTRODUCTION

As the California Department of Transportation (Caltrans) looks ahead to the future of transportation, the movement of goods will continue to be a significant contributor to the state's economy. California boasts the world's fifth-largest economy and manages a freight network that handles a substantial share of international trade in the United States, both in terms of value and volume. While this economic growth has been remarkable, it has brought with it certain challenges, including increased traffic congestion, environmental concerns, and disruptions to communities. The primary focus of Caltrans System Planning is to optimize and enhance the sustainability of the transportation system. This involves identifying and proposing projects and strategies that align with Caltrans' goals and objectives through a spirit of collaboration and partnership with cities, regions, and state agencies.

Corridor planning involves synthesizing information and data from various sources to develop long-range visions for corridors that meet the current and future mobility needs of the people of California. The Freight Emphasis Area Guidance outlines freight considerations helpful in the development of a robust corridor plan yet is not representative of all factors influencing goods movement and freight networks. Freight project types can include many facilities such as maritime ports, rail yards, truck parking facilities, small retailers, and mega-warehouses. Each type of freight project will require different considerations based on location, business needs, freight tonnage, and other inputs that are unique to the project or plan. Corridor planning teams are encouraged to expand their perspective beyond the content presented here. It is essential to acknowledge that the unique characteristics of each corridor study setting will directly shape the inclusion of narrative and/or data specific to freight within the study.

This Guide is a companion to the 2022 Corridor Planning Process Guide (CPPG), and similarly follows the 8-step process. The Freight Emphasis Area Guidance was prepared to assist district system planners, their partners, and stakeholders in the development of corridor planning documents. The Guide functions as a resource for corridor planning and readers are encouraged to use the Guide in conjunction with the CPPG. Each chapter of the Guide summarizes the processes detailed in the corresponding chapter of the CPPG. Following the summary, general considerations are presented as a set of questions corridor planning teams can use to guide the development of their plans. The Freight Emphasis Area Guidance is not intended for use as a stand-alone document. For further detail on the corridor planning process, references to general planning concepts, relevant federal and state laws, regulations, or policies, refer to the CPPG. As a "living" document, the Freight Emphasis Area Guidance may be updated to reflect updates to policies, procedures, and data.

STEP 1: SCOPE EFFORT

GOAL: A clearly defined scope and team to guide the corridor planning process. Agreement on the issues and potential opportunities that will be considered during the corridor planning process. A comprehensive set of goals, objectives and performance measures for the corridor that will guide the selection of solutions that address the corridor's issues and opportunities.

- ☑ Identify freight stakeholders, district freight planners, and responsibilities.
- ☑ Define the corridor's relation to freight, including warehousing, commercial facilities, multimodal goods movement opportunities, and conflicts between other modes of travel.
- ☑ Identify key data sources, plans, and guidance for present and future goods movement within the corridor planning area.

1.2 KEY ACTIVITIES

Initiating the corridor team marks the outset of stakeholder engagement, an ongoing endeavor throughout the study. During the project scoping phase, it is imperative to delineate roles and responsibilities while establishing a comprehensive process/strategy for crafting and gaining acceptance for the final corridor plan. This outreach may extend to industry associations, regulatory bodies, as well as owners and operators of key elements within the goods movement infrastructure, such as warehouses, cold storage facilities, shipping terminals, rail networks, and personnel involved in significant freight operations.

It is crucial to consider the existing planning and policy frameworks guiding the development of the corridor plan from the very inception of the scoping process. This analysis should encompass, but not be limited to, Caltrans' modal plans, including the California Sustainable Freight Action Plan (CSFAP), Interregional Transportation Strategic Plan (ITSP), California State Rail Plan, California Freight Mobility Plan, California State Transit Plan, Toward an Active California: State Bicycle and Pedestrian Plan, and California Aviation System Plan.

A corridor can be defined as a linear geographic area with one or more modes of transportation that facilitates the movement of people and goods, supports the economy, and connects communities. Origins and destinations, land use, place types, and existing and future development around the transportation infrastructure influence how the corridor and its limits are defined. These factors also affect how goods flow within a corridor. Travel options are restricted in numerous communities, even though their facilities frequently grapple with overwhelming demand. Disruptions would significantly burden users and the larger regional economy. Corridor planning teams must seek opportunities to fortify corridors through redundancy and multimodality wherever possible, to build up the resilience of the transportation network. Meaningful partnerships and corridor planning will preserve the character of local communities, create opportunities for neighborhood

enhancement, and improve multimodal accessibility.

1.3 OVERARCHING CONCERNS AND CONSIDERATIONS

- Does the corridor planning team include a freight representative? Some potential individuals or roles that can serve as freight representatives are freight and logistics managers, supply chain analysts, transportation planners, freight carriers, trucking company representatives, intermodal transportation experts, freight brokers, logistic consultants, environmental specialists, government transportation officials, etc.

- Is the corridor, or a portion of it, a freight/trucking designated route? (i.e., National Highway Freight Network, Surface Transportation Assistance Act Truck Routes, Critical Rural or Urban Freight Corridor, etc.)? How does the corridor feed into the greater National Highway Freight Network?

- What goods movement deficiencies/issues are known to exist (i.e., bridge clearance, incompatible land uses, access, safety, projected growth in freight, existing bottlenecks, parking, etc.)? Are others anticipated?

- What major trip-generating origins/destinations exist on or near the corridor? Do current/planned land-uses forecast an impact to the system?

- Are there transportation-based priority populations along the corridor?

- Resources
    - California Healthy Places Index
    - The Transportation Disparities Mapping Tool
    - CalEnviroScreen 4.0
    - Caltrans Equity Index

- Are there active planned projects affecting the corridor (e.g., local or state sponsored projects, CSFAP pilot projects, etc.)? Is there an existing list of freight projects?

- What is your district implementing to meet the goals of all the freight policies?

- How does the route contribute to the freight transportation system by improving economic efficiency, productivity, and competitiveness?

- What can be done to the route to improve travel time reliability, safety, security, resiliency, and the state of good repair on the freight transportation system?

- Does the corridor plan reduce adverse environmental and community impacts of the freight transportation system? This includes considering Vehicle Miles

Traveled (VMT) as a crucial metrics.

- What is the corridor anticipated to look like in the future (e.g., automation in trucking, air deliveries, robotic deliveries, more active transportation)? This includes opportunities to incorporate vehicle-to-infrastructure (V2I) systems.

1.4 PROCEDURE TO SCOPE

Procedure 1: Purpose Definition
The purpose of the freight corridor planning effort should be clearly articulated. State whether the main objectives are to improve efficiency, reduce congestion, enhance safety, promote sustainability, or address specific freight-related challenges within the corridor.

Procedure 2: Stakeholder Engagement
Comprehensive planning for a freight corridor necessitates the inclusive engagement of stakeholders who have vested interests. This involves actively involving a wide array of parties, including Department of Transportation (DOT) representatives, state and local government agencies, transportation authorities, logistics companies, industry associations, and local communities. Use diverse methods to gather valuable insights, perspectives, and requirements through consultations, collaborative initiatives, and focus groups. This collaborative approach guarantees a holistic understanding of stakeholder needs, thereby facilitating the development of a well-informed and widely supported freight corridor plan.

Procedure 3: Corridor Scope Definition
To initiate the corridor planning effort, it is essential to delineate the geographic boundaries and characteristics of the corridor. This entails identifying the starting and ending points of the corridor, as well as key waypoints along its path. Our focus lies in comprehending the corridor's physical attributes, including its length, width, topography, and the existing infrastructure in place. This detailed understanding forms the basis for establishing the scope and context of the freight corridor planning endeavor.

Procedure 4: Data and Future Trend Analysis
To acquire a deep understanding of the present condition of the corridor, conducting a thorough analysis of its existing state is imperative. This analysis encompasses the assessment of multiple facets, including, but not restricted to, transportation modes, traffic patterns, freight volumes, modal distribution, and the challenges encountered. Furthermore, it is paramount to evaluate forthcoming trends and forecasts, such as land utilization, population expansion, economic progress, trade trends, and technological advancements. This forward-looking assessment aids in anticipating the evolving requirements and potential opportunities within the corridor, thereby guaranteeing that the corridor plan remains adaptable and well-prepared for the future.

Procedure 5: Scope Determination and Objective Setting
Based on the analysis conducted in the previous steps, the scope of the freight-focused component of the corridor planning effort should be established. This entails defining the specific elements to be encompassed in the planning process, which may include infrastructure improvements, policy recommendations, stakeholder engagement, and environmental considerations. Additionally, it is vital to identify key performance indicators (KPIs) to gauge the success and progress of the planning effort, ensuring that the objectives are effectively measured as applicable and as may be possible.

Freight funding initiatives at the state level, like the Trade Corridor Enhancement Program (TCEP) and the Ports and Freight Infrastructure Program (PFIP), specifically emphasize Truck Travel Time Reliability as a critical metric in assessing freight performance. It is crucial for these performance metrics to align seamlessly with the KPIs identified for the comprehensive planning of corridors.

Procedure 6: Scope Validation and Communication
In the final step, the emphasis should be on validating the defined scope with stakeholders and securing their agreement and support. The scoping document, comprising the purpose, objectives, geographic boundaries, identified challenges, future trends, and scope limitations, should be effectively communicated to all relevant stakeholders, decision-makers, and project team members. This critical step fosters a shared understanding of the scope and paves the way for a seamless follow-up after the corridor planning effort has been completed.

STEP 2: GATHER INFORMATION

GOAL: Corridor information is collected and organized to inform an understanding of the corridor context, as well as current and future conditions.

- ☑ Identifies what data is available and what needs to be collected.
- ☑ Establishes data sources, and responsibilities for data collection and maintenance.
- ☑ Assesses limits to time, resources, or expertise; and their potential solutions.

2.1 KEY ACTIVITIES

The California Transportation Plan (CTP) is California's long-range transportation plan— the goals, policies, and recommendations of which all other plans are to align with. Chosen performance measures should support the CTP, state modal plans, along with any related regional performance measures, while being tailored to identify corridor-level issues. Information needed to convey to the corridor plan's audience includes: 1) the primary purposes and network designations of the corridor, 2) the corridor's main users, 3) issues of regional significance related to the

corridor, 4) important context of major freight generators and attractors, 5) issues of accessibility, mobility, or modality, 6) environmental or safety concerns, and 7) issues of equity. An environmental scan should be conducted to identify important environmental issues, advanced mitigation, hazardous materials sites, and other sensitive land uses related to air quality and noise.

Many elements of corridor data are qualitative in nature, providing important planning and operational context for the Plan. It is critical to develop performance measures for collecting and monitoring both quantitative and qualitative data. Once identified, pinpoint the performance objectives that are beyond the ability/resources of the project team to measure and establish a strategy to explore them in the future (e.g., research, or funding opportunities). Freight-industry stakeholders may have relevant data to share regarding the corridor's operation and challenges, such as safety concerns, peak times of delay, truck parking needs, etc.

Depending on the corridor plan's level of complexity, development of a data collection plan may ensure that gaps and any costs for acquiring data are identified, and the time needed for collection is incorporated into the study schedule. The corridor team should consider developing an Analysis Plan for corridors of moderate or high complexity. The Analysis Plan clarifies the analytical approach and methodology, as well as project objectives, the study area conditions, performance measures, strategies being implemented, and the tools and data to be used in the analysis. Also consider seasonality in the corridor's operational conditions and include this factor in the Analysis Plan, if applicable. The Analysis Plan can also help maintain clear and mutual understanding among stakeholders of the analysis' expectations and assumptions, as well as help identify potential flaws or technical issues in the evaluation of corridor improvements.

2.2 FREIGHT NETWORK CONCERNS

Climate Change and Transitioning to Zero-Emission

The California Global Warming Solutions Act of 2006, also referred to as Assembly Bill 32, mandates California to lower its GHG emissions to the levels of 1990 by the year 2020. One notable source of GHG emissions within the state is the movement of goods. On a national scale, heavy-duty vehicles account for 19% of total GHG emissions from all transportation sources.

Goods movement has traditionally been powered by diesel engines in locomotives, marine vessels, and heavy-duty trucks—which produce tons of emissions in the form of particulate matter (PM), nitrogen oxides (Nox), and sulfur oxides (Sox). Diesel engines emit a complex mix of pollutants, including very small carbon particles ("soot") called diesel PM, known to contain over 40 cancer-causing substances that accumulates around ports, rail yards, and other multimodal facilities. Both the U.S. Environmental Protection Agency (EPA) and CARB classify diesel PM as a toxic air contaminant based on its potential to cause cancer, premature death, respiratory and cardiovascular

effects, and other health problems. Caltrans anticipates regulations will be implemented to help ensure the goals of EO N-79-20 are met. Therefore, consider how the network of zero- or near zero-emissions infrastructure to fuel zero- or near zero-emissions trucks and cargo handling equipment will be supported on the corridor.

Including zero- or near-zero emissions infrastructure or electric shore power infrastructure for truck drivers and cargo handling equipment can reduce GHG and heat emissions. Electric charging infrastructure provides trucks or transport refrigeration units access to fuel and power without running their engines, thus reducing GHG and heat emissions. Cold-ironing or bonnet emissions capture strategies can reduce the fuel used while ships are loading/unloading. Growing demand for charging station infrastructure may alter land use patterns.

Truck Parking

California ranks 49th out of 50 states in truck parking spaces per 100,000 vehicle miles traveled. Due to severe truck parking shortages throughout the state and Federal Hours of Service Regulations that limit the time a truck driver can drive daily, many truck drivers cannot find safe and reliable truck parking spaces and park in undesignated or unsafe areas. If possible, consider including freight parking within the project/corridor boundaries that truckers can utilize before loading or unloading, their working hours of service are up. Constructing adequate truck parking on-site can help truck parking demand on existing facilities and ensure those truckers are near their next load. Furthermore, inadequate container storage facilities compel trucks to return empty or transport underutilized cargo, resulting in inefficient trips and heightened emissions. This practice, called "deadheading," contributes to pollution and GHG emissions, adversely affecting air quality, public health, and the environment. For more information on truck parking, the California Statewide Truck Parking Study from 2021 includes resources and tools.

Community Impacts

While goods movement industries support many jobs, transport food, and all other necessities, communities near major highways, seaports, rail yards, border crossings, freight distribution centers, intermodal transfer facilities, and other "gateways" and "hubs" of domestic and international trade may be adversely affected in terms of air quality, noise, congestion, health, and quality of life. Often, the negative effects of transportation projects are endured by the communities residing near the freight infrastructure, while the benefits of goods movement are shared by a larger population at the regional, state, or national level. Careful consideration must be given to provide an equitable distribution of the benefits and burdens of goods movement on all California communities, especially the most vulnerable. Consider goods movement impacts to SB-535, AB-1550, transportation-based priority populations.

2.3 OVERARCHING CONCERNS AND CONSIDERATIONS

- How sustainable is the freight network (i.e., 1) system efficiency, 2) transition to

ZEV technology, 3) increased competitiveness and economic growth targets)?

- How is goods movement, on- and off-system, affecting vulnerable communities (e.g., pollution, noise, safety)? How can benefits and burdens be equitably distributed? How can the Safe System Approach be implemented?

- Are there any freight connections located near Native American and Tribal Groups?

  What are the existing first-mile & last-mile/accessibility conditions for each freight mode? Are there freight impacts off-system?

  Which demand strategies are suitable/appropriate/fitting? (e.g., sustainability, livability, CFMP/CAPTI goals)?

- Are there established parallel/alternative routes?

Additional Considerations by Freight Activity Type (As Applicable)
Additional considerations by freight activity type refer to specific factors and issues that may need to be considered when analyzing or addressing freight-related activities based on their characteristics or nature. Different types of freight activities can have unique challenges and requirements. Below are some common freight activity types and their associated additional considerations:

Urban Freight
Last-Mile Delivery: In urban areas, the final leg of a product's journey to the consumer, known as the last mile, can be particularly challenging due to congestion, limited parking, and the need for timely deliveries.

Emissions and Air Quality: Urban areas often have strict emissions regulations, making it essential to consider cleaner delivery methods and technologies.

Long-Haul Trucking
Driver Fatigue and Hours of Service: Long-haul trucking involves extended hours on the road, raising concerns about driver fatigue and the need to comply with hours-of-service regulations.

Fuel Efficiency: Maximizing fuel efficiency is critical for reducing costs and environmental impacts.

Rail Freight
Infrastructure Maintenance: Ensuring the reliability and safety of rail infrastructure, including tracks and bridges, is essential for the smooth flow of rail freight.

Intermodal Transportation: Coordination between different modes of transportation, such as rail and truck, may be necessary for efficient freight movement.

Maritime Freight

Port Operations: The efficiency and capacity of ports are crucial for maritime freight, with considerations for container handling, customs clearance, and security.

Environmental Regulations: Maritime freight must adhere to environmental regulations to reduce emissions and protect marine ecosystems.

Air Freight

Security and Customs: Air freight involves stringent security measures and customs procedures to ensure the safety of cargo and compliance with international regulations.

Speed and Reliability: Air freight is valued for its speed, but it comes at a higher cost compared to other modes of transport.

Intermodal Freight

Seamless Transfers: Coordination between different modes of transport is vital to minimize delays and damage during transfers.

Containerization: The use of standardized containers facilitates efficient intermodal freight transport.

Temperature-Sensitive Freight (Refrigerated Cargo)

Temperature Control: Precise temperature control is crucial for perishable goods, such as food and pharmaceuticals.

Monitoring and Traceability: Technology for real-time monitoring and traceability of temperature-sensitive cargo is essential.

Hazardous Materials Freight

Safety Regulations: Strict safety regulations govern the transportation of hazardous materials to prevent accidents and protect the environment.

Emergency Response: Planning for emergency response in case of spills or accidents is critical.

E-commerce and Parcel Delivery

Volume and Speed: E-commerce demands fast and efficient parcel delivery services to meet customer expectations.

Last-Mile Solutions: Innovations like drone delivery and locker systems can address last-mile challenges.

Agriculture Delivery

Agriculture can be considered a type of freight activity, especially when it involves the transportation of agricultural products and commodities from farms and

production facilities to distribution centers, markets, processing plants, and export/import locations. Efficient and reliable transportation of agricultural goods is essential to ensure a stable food supply chain and support both domestic and international markets. Below are several considerations when discussing agriculture as a type of freight activity:

Seasonality: Agricultural freight often experiences seasonal fluctuations due to planting and harvesting seasons, which can impact transportation planning and capacity requirements.

Perishability: Many agricultural products, such as fresh produce and dairy, are highly perishable and require specialized transportation and storage conditions to maintain quality.

Bulk vs. Packaged Goods: Agricultural freight can involve both bulk commodities (e.g., grains, oilseeds) and packaged goods (e.g., fruits, vegetables), each with its own transportation and handling requirements.

Regulations: Compliance with regulations related to food safety, weight limits, and transportation of hazardous materials (e.g., pesticides) is crucial in agricultural freight.

Rural Infrastructure: Access to rural areas, where many farms are located, may present transportation challenges due to limited road infrastructure and facilities.

Export/Import: International trade in agricultural products involves customs regulations, inspections, and documentation, adding complexity to the freight process.

Specialized Equipment: Some agricultural products require specialized transportation equipment, such as refrigerated trucks for fresh produce or bulk carriers for grains.

Supply Chain Resilience: Weather events, disease outbreaks, and other disruptions can impact agricultural production and the associated freight activities, requiring resilient supply chain strategies.

Warehousing and Trucking

- Are existing on and off ramps long enough to accommodate potential queuing of trucks? Is the off-ramp signal timed appropriately for deceleration of large trucks and to prevent spillback onto the highway?

- Do the roads around the project (truck route) have weight or height restrictions?

- Will deliveries coincide with peak hours of traffic on this route? Are driveways wide enough to accommodate truck turning movements?

- Are there any pedestrian or bicycling infrastructure conflict points to/from the warehousing facilities? Have potential conflicts with pedestrians or bicyclists been addressed?

- Are there plants or trees that may blocks sightlines for truckers, especially on corners or driveways?

- How many truck parking spots are provided along the corridor? Will the width of a parked truck interfere with traffic in the driving lanes/bicycle lane? If applicable, will a parked truck block pedestrian crosswalks and pedestrian visibility to vehicular traffic? If applicable, will a parked truck limit sight distance for cars turning right or left at the intersection or driveway? Coordination with local jurisdictions may be necessary.

- Are there existing and planned truck charging and fueling infrastructure within the corridor?

- Might cargo bikes be utilized on the corridor? Bicycle parking may encourage and facilitate the growing use of food delivery services and parcel deliveries.

- Is there coordination with short haul railroad operators to transport between distribution centers/warehouses and ports/railyards?

  Is the corridor in an area with a regional truck parking solution? Parking facilities should include accessible restrooms, trash facilities, showers, drinking water, and food or vending machines.

Rail

- Are there potential conflict points with rail and highway intersections? Any ongoing or upcoming projects at these points?

- Are quiet zones/sound walls needed to mitigate noise impacts from a freight train?

- Have community health impacts (e.g., noise, air quality, water quality, access, or mobility), especially to affordable housing developments, been mitigated too less than significant?

- Is there likelihood for drayage trucks parking / idling in residential areas waiting to access intermodal rail facilities?

- How many truck parking spaces are provided near major trip generators?

- Are there opportunities for mode-shift? Shifting goods from trucks to rail effectively reduces GHG emissions and volume of freight trucks on the state highway system.

Ports and Airports

- Are traffic impacts experienced outside of the Port (e.g., routing through neighborhoods, time of day activities, signal timing, and mode-shift from trucks to rail)? Is there potential for trucks to queue onto the highway?

- Is truck parking supply in the region impacted? Are there any areas dedicated to freight truck parking? [If yes, does this area also provide access to, at minimum, restroom facilities and electric charging/plug in for idling trucks? If none, are there any potential areas that could be used as an unofficial truck parking area?]

- Have potential pedestrian or bicycling infrastructure conflict points to and from the port/airport been evaluated?

- Does the facility offer a transportation demand management (TDM) alternative to port workers? This could help offset GHG from the Port and potentially eliminate some vehicular traffic and freight traffic conflicts.

- Does the facility offer incentives for off-hour delivery and pick-up (Ports of Los Angeles/Long Beach offer PierPASS, as an example)?

- Does the facility provide zero-emissions fueling for trucks or cargo handling equipment?

- Have community health impacts (e.g., noise, air quality, water quality, access or mobility), especially to affordable housing developments, been mitigated to less than significant?

- Is there drayage truck parking/idling in residential areas by trucks waiting to access intermodal rail facilities?

- Is the capacity (and design) of frontage roads sufficient to accommodate port traffic demands, especially in situations where ports are being expanded? Frontage roads play a large part in connecting port facilities with the State Highway System.

2.4 FREIGHT SYSTEM PERFORMANCE MEASURES

Highway

Major truck bottlenecks, corridor reliability buffer index, border crossings by volume, truck volumes, truck route gaps, truck parking supply, alternative fueling supply, environmental implications, equity implications, productivity (equivalent lost lane miles), business characteristics and real estate transactions, pavement conditions, roadway bridge conditions, truck travel speed, truck hours of delay, roadway truck collision fatalities and injuries.

Rail
Velocity, throughput, costs, bottlenecks, capacity, on-time delivery, environmental implications, equity implications, mode share, train height clearances, track weight accommodation, posted maximum train speeds, railroad grade crossing fatalities and injuries, consider length of trains or maximum length of train allowed in rail yard/ rail line.

Marine and Waterways
Capacity, volumes, travel time reliability, connectivity, environmental implications, equity implications, navigation channel depths, waterway bridge clearances.

Air
Capacity, active vs. inactive facilities, volumes, throughput, cost, ground access, environmental implications.

Pipeline
Connectivity, volumes, environmental implications.

2.5 PROCEDURE TO GATHER INFORMATION

Procedure 1: Determine Requirements
The data requirements for the specific corridor should be determined; the types of freight data that will be collected (e.g., freight volumes, freight origins and destinations, modal split, freight flows, environmental features etc.). The CPPG includes resources on environmental features that should be considered through the freight lens.

Procedure 2: Identify Data Sources
Identify data sources that may contain the specific freight data (e.g., government agencies, logistics companies, databases etc.). This entails establishing partnerships/collaborations with organizations that possess the desired freight data. Initiate discussions for data sharing agreements and access. (See Section 3.3 for a list of data sources and tools.

Other local Freight data examples:
- California Crop and Livestock Report (price value of crop and livestock commodities in CA)
- Northern California MegaRegion Goods Movement Study
- Freight Origin/Destination (need to request Caltrans account through Freight Office)
- Truck VMT via California Air Resources Board EMFAC

Procedure 3: Design Data Collection Methodology
Develop a data collection methodology by choosing suitable data collection methods according to the specific characteristics of the freight data needed. Potential methods can encompass data requests, accessing publicly available datasets pertaining to freight volumes and modal splits, or establishing

collaborations with data owners to acquire corridor-specific freight data.

Procedure 4: Conduct Data Validation
In freight transportation planning, data validation is a crucial step to ensure the accuracy, reliability, and quality of the data used for various planning and analysis tasks. Data validation involves systematically checking and verifying data to identify errors, inconsistencies, or inaccuracies. When applied to freight transportation planning, data validation plays a significant role in accuracy assurance, consistency checking, error detection, completeness assessment, data cleaning, quality improvement, compatibility check, modal reliability, and regulatory compliance. Data validation in freight transportation planning helps enhance the quality and integrity of data, leading to better-informed decisions, more effective planning, and improved outcomes in the transportation of goods. It is a fundamental step in developing and maintaining a robust freight transportation system.

Understanding and validating freight data involves a systematic approach that begins with identifying diverse data sources such as databases, sensors, surveys, and other collection methods. It is crucial to comprehend the nature of each source, acknowledging its limitations and understanding the types of data it provides. Subsequently, clear criteria for data validation should be established, encompassing parameters like accuracy, completeness, consistency, and timeliness. This includes defining acceptable ranges or standards for various data parameters.
The validation process extends to cleaning the data, addressing errors or inconsistencies by removing duplicates, correcting typos, or filling in missing values. Cross-verification with other reliable sources is essential, enhancing data reliability through consistency checks. Statistical analysis aids in identifying outliers or anomalies, and geospatial validation ensures spatial accuracy. Temporal validation focuses on time-related aspects, checking for inconsistencies in timestamps, sequence order, and temporal trends.

Engaging subject matter experts in freight and logistics provides valuable insights not apparent during automated validation. Utilizing data validation tools automates checks and provides detailed reports on data quality. Documentation of the validation process is crucial for future reference and audits. Data validation is iterative, requiring periodic reviews to ensure corrections do not introduce new errors. Implementing a system for continuous improvement involves regular reviews and enhancements based on feedback and evolving data needs. Resources for freight data validation include validated datasets from government agencies like the U.S. Department of Transportation, industry reports, open data platforms, GIS platforms, data quality tools, and training courses offering valuable insights and techniques.

STEP 3: CONDUCT BASELINE PERFORMANCE ASSESSMENT

GOAL: Identify performance issues and trends on the freight network.

- ☑ Use best available data to determine freight performance indicators to identify potential goods movement improvements.
- ☑ Engage with freight stakeholders to better understand the needs of current and future goods movement within the corridor.
- ☑ Use available resources to consider impacts of freight movements on all users of the corridor.

3.1 KEY ACTIVITIES

A complete corridor plan defines how a corridor is performing, explains why it is performing that way, and recommends projects and strategies that achieve corridor goals and objectives.

An important part of the corridor's goods movement performance assessment is to outline the range of operational conditions present within the corridor, the level and type of operational factors, and their variability. Data on truck VMT, commodity flows, trip schedules, and trip frequency can be valuable in assisting the corridor team in assessing the primary types and recurrency of freight and goods movement services within the corridor. This information serves as the foundation for establishing links between current operational practices and optimal conditions. The mobility options of freight services, and the availability or accessibility of necessary infrastructure and intermodal connections are all identified. Travel demand model limitations may not support some existing measures, such as mode split, access to jobs, jobs/housing split, VMT, etc. Additionally, special events, agriculture seasonality, and incidents are key factors that affect system management and operations that will not show up in a model. The lack of historical freight data within Caltrans along with the qualitative nature of many data points of interest reinforce the importance of partnership as these corridor plans are developed. Any gaps in information or restrictions in predicting system performance should be identified and described in the context of how it affects system management.

The freight network affects all other modes, and they should be brought into harmony. Projects and strategies should encourage increased freight efficiency and a shift from vehicular goods movement to rail, waterways, and cargo bikes when feasible. Additional emphasis should be given to modal shift as it relates to first and last-mile freight challenges. When the modal shift is not feasible, freight stakeholders and agencies should continue to implement projects that reduce the negative impacts of freight. Examples include ZE or Near Zero Emissions (NZE) vehicles, consolidation of goods (the process of combining smaller shipments from multiple sources into a single, larger shipment), longer trailers, eco routing, fewer empty trailers, alternative fuel corridors, "clean" truck lanes, and truck platooning. Also, Caltrans can play a significant role in encouraging private stakeholders to adopt sustainable practices in the freight industry. While it may not have the power to

force private entities to do so, it can employ several strategies to incentivize and collaborate with them. For example, regulations and standards, financial incentives, partnerships, education and outreach, research and development, market access adlect.

Some of these strategies and project types are identified in Chapters 6A and 6B of the California Freight Mobility Plan 2023. Anticipated outcomes from a comprehensive performance assessment would include the collection of all elements during the information gathering phase (step 2) and similar results as outlined below.

- Awareness of safety issues and accident rates
- Identify conflict zones within the goods movement system
- Data on current truck VMT
- Comprehension of legal and illegal truck parking issues within the corridor limits
- Insight into commodity flows and trip schedules/frequencies
- Recognition of truck queuing issues on the goods movement system

3.2 OVERARCHING CONCERNS AND CONSIDERATIONS

Does the performance assessment show...

- Any gaps or opportunities to optimize the freight network?
- Latent potential or strained capacity on the goods movement network?
- Opportunities for mode-shift?
- Existing or potential conflict points between differing modes?
- Different modes safely share the same network, or does separation need to be created?
- Does the presence of freight vehicles contribute to traffic stress on the active transportation network?
- Freight deliveries affect bicyclists and pedestrians; does it conflict with transit stops?
- Which deficiencies are under Caltrans' control, and which will require partnerships to change?
- That the data is supported by or in opposition to existing network plans/studies?

- Identified truck parking deficiencies?

3.3 DOCUMENTS AND TOOLS

See Appendix-B for complete list of definitions, links, and how to use the resources.

- Freight Analysis Framework: integrates data from a variety of sources to create a comprehensive picture of freight movement among states and major metropolitan areas by all modes of transportation. This provides estimates for tonnage and value by regions of origin and destination, commodity type, and mode for base year 2017 and a 30- year forecasts.

- PeMS: Includes data collected in real-time from detectors spanning the freeway system across all major metropolitan areas of California. Data includes Vehicle Classification (Heavy duty truck), Weight-In-Motion information, Truck VMT and etc.

- Cal B/C

- Caltrans GIS Data

- Caltrans Office of Traffic Census

- Caltrans Statewide Truck Parking Study

- The National Performance Management Research Data Set

- Bureau of Transportation Statistics

- Travel Demand Models

- Local or Regional Plans

3.4 PROCEDURE TO CONDUCT PERFORMANCE ASSESSMENT

Conducting a comprehensive freight corridor performance assessment can lead to valuable insights, informed decision-making, and continuous improvement of the corridor's operations.

Procedure 1: Establish Assessment Goals and Key Performance Indicators
To conduct a comprehensive freight corridor performance assessment, it is crucial to clearly define the goals and objectives. This includes determining freight movement efficiency, infrastructure utilization, environmental features, safety records, and any other relevant criteria. Subsequently, appropriate KPIs should be selected to align with the assessment goals.

KPIs must be measurable, relevant, and specific to accurately reflect the corridor's performance in the chosen areas. By establishing well-defined objectives and

selecting relevant KPIs, the assessment process can effectively measure and monitor the corridor's performance and progress towards achieving its intended outcomes.

Procedure 2: Data Collection and Analysis
To assess the freight corridor's performance comprehensively, begin by gathering relevant data on freight movement, truck travel time, safety records, environmental features, and other performance-related metrics. Utilize statistical methods and data visualization techniques to analyze the collected data, evaluating the corridor's performance against the identified KPIs. This analysis enables the identification of the corridor's strengths and weaknesses, highlighting areas where it performs well and those that require improvement.

Additionally, compare the corridor's performance against industry standards or best practices to gain insights into its relative performance and identify specific areas for potential improvement. By following this systematic approach, stakeholders can gain a comprehensive understanding of the freight corridor's performance, facilitating data-driven decision-making and the implementation of targeted strategies to enhance its overall efficiency and effectiveness. The Freight Analysis Framework by the FHWA can be used as a reference. The link to the Freight Analysis Framework User Guide can be found in the Appendix-B.

Procedure 3: Stakeholder Engagement and Evaluation
Involvement of relevant stakeholders is essential in the performance assessment process for the freight corridor. Engage government agencies, freight operators, logistics companies, and/or other entities as may be pertinent to the setting of the corridor plan being completed, along with the associated local communities to obtain their valuable input, feedback, and perspectives, ensuring a comprehensive evaluation. Identify potential opportunities and threats that may impact the corridor's performance in the future, considering known economic, technological, regulatory, and environmental factors. Specific actions that can be taken to gather

Methods for stakeholder engagement can include:

Stakeholder Workshops: Organize workshops or focus group discussions with key stakeholders to facilitate in-depth conversations and gather their insights.

Surveys and Questionnaires: Distribute surveys and questionnaires to a wide range of stakeholders to collect structured feedback on specific aspects of corridor performance.

Interviews: Conduct one-on-one interviews with individual stakeholders, especially those with unique expertise or perspectives relevant to the corridor's performance.

Partnerships: Collaborate with industry associations, advocacy groups, and trade organizations to gain insights from their members.

By involving stakeholders and gathering their insights, the assessment can identify

the corridor's strengths, weaknesses, opportunities, and threats, providing a holistic understanding of its current state and potential for improvement. This collaborative approach empowers stakeholders to make informed decisions and implement targeted strategies to optimize the corridor's operations and future sustainability. Regarding the evaluation process, it is important to consider the following:

Data Analysis: Gather and analyze data related to corridor performance, including traffic patterns, safety records, environmental impact, and economic factors.

Comparative Analysis: Compare the corridor's performance metrics with industry standards, best practices, and similar corridors to identify areas of strength and areas that need improvement.

SWOT Analysis: Conduct a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis to assess the internal and external factors that impact the corridor's performance.

Scenario Planning: Develop different scenarios for the corridor's future, considering economic, technological, regulatory, and environmental changes, and assess how the corridor would perform under these scenarios.

Benchmarking: Compare the corridor's performance over time to track improvements or deteriorations in various aspects.

Feedback Integration: Ensure that the insights and feedback gathered from stakeholders are integrated into the evaluation process to provide a holistic understanding of the corridor's current state and potential areas for improvement. This collaborative approach empowers stakeholders to make informed decisions and implement targeted strategies to optimize the corridor's operations and enhance its future sustainability. It also ensures that the evaluation process is thorough and inclusive, taking into account a wide range of perspectives and data sources.

Procedure 4: Report, Recommendations, and Implementation

In collaboration with relevant stakeholders, develop recommended implementation strategies and initiatives to enhance the freight corridor's performance. Regularly monitor the progress of the implemented improvements and track performance against the initial assessment. Assess the effectiveness of the recommendations and adjust strategies if needed. Prepare a comprehensive performance assessment report summarizing the findings, analysis, and stakeholders' feedback. Provide actionable recommendations to address identified weaknesses and optimize the corridor's performance.

Collaborate with stakeholders to implement the recommended strategies and initiatives, ensuring a collective effort towards improvement. Continuously monitor progress, track improvements, and conduct periodic reviews to assess the effectiveness of the implemented measures. By following this streamlined

procedure, stakeholders can effectively conduct a comprehensive freight corridor performance assessment, make data-driven decisions, and continually enhance the corridor's operations to achieve the desired outcomes.

STEP 4: IDENTIFY POTENTIAL PROJECTS AND STRATEGIES

GOAL: Identify potential freight projects and strategies for analysis and evaluation.

- ☑ Identify potential strategies and projects to address goods movement impacts at locations along the corridor in the short-, medium-, and long-term while considering the impacts to all aspects of the corridor and surrounding systems if implemented.
- ☑ Engage with stakeholders and partners to refine strategies and projects to prioritize goods movement improvements within the corridor.

4.1 KEY ACTIVITIES

After utilizing the results of the current and future performance assessment, collection of sufficient information about the setting of the corridor plan, and identification of challenges, the corridor team will identify projects and strategies to be carried forward into the corridor analysis, including those focused on goods movement (facilities, associated travel patterns etc.). The corridor team may wish to consider freight projects and strategies to address certain corridor objectives. Any freight projects or strategies should address issues identified in the freight assessment, as well as linking back to corridor goals and objectives.

The team will assess the degree to which individual project proposals effectively target the identified issues in relation to other corridor objectives and prioritize freight projects based on this evaluation. The number of projects and strategies to be considered for analysis and level of project detail necessary to conduct that analysis will be decided by the corridor team and will depend greatly on the analysis method chosen in the scoping step of the corridor plan. Projects and strategies identified for evaluation should clearly identify the corridor objectives they are meant to address. The result is expected to be a collection of context-sensitive solutions that are in alignment with the California Freight Mobility Plan, CTP, CSIS, and Climate Action Plan for Transportation Infrastructure (CAPTI).

4.2 OVERARCHING CONCERNS AND CONSIDERATIONS

- Can the projects be grouped neatly by type or strategic theme? Are the benefit/cost of each project or strategy evident?
- What funding sources are available? Are additional resources anticipated?

- Will the strategy affect other corridors or improve local roads-circulation?
- Will projects result in environmental improvements because of freight system changes? Is the network's resilience adversely affected by the movement of goods?
- Will network resilience be strengthened through implementation of the strategy? What performance measures are included in the implementation plan?
- How often will performance measures be updated?
- Have roles and responsibilities for future updates been agreed upon?

4.3 PROCEDURE TO IDENTIFY POTENTIAL PROJECTS AND STRATEGIES

Procedure 1: Assessment, Data Collection and Analysis
Building upon the outcomes from Step 3 for the performance assessment, the strategies identified here in Step 4 should involve engaging with stakeholders to conduct a comprehensive needs assessment for the freight corridor.

Understand the current challenges and requirements of freight movement within the corridor by gathering relevant data on freight volumes, traffic patterns, infrastructure condition, safety records, and environmental features. Analyze the collected data to identify areas of inefficiency, bottlenecks, and potential improvement opportunities.

Additionally, consider conducting a Strengths, Weakness, Opportunities, and Threats (SWOT) analysis to gain insights on the corridor. By following this approach, stakeholders can collaboratively identify the corridor's challenges and prioritize targeted improvement strategies to optimize freight movement and address existing limitations effectively.

Procedure 2: Ideation and Prioritization
Begin by reviewing previous transportation plans, studies, and projects related to the freight corridor. Learn from successful practices and lessons learned in similar corridors to inform potential projects and strategies. Organize brainstorming sessions to generate innovative ideas for potential projects and strategies. Prioritize projects based on their potential impact, feasibility, cost-effectiveness, and alignment with corridor objectives.

Conduct a thorough feasibility assessment to determine the technical, financial, environmental, and social viability of each prioritized project. By combining insights from existing plans, brainstorming sessions, and feasibility assessments, stakeholders can identify the most effective and viable projects and strategies to enhance the freight corridor's performance and overall sustainability.

Procedure 3: Conceptual Planning and Validation
To materialize the selected potential projects and strategies, begin by developing

conceptual plans and designs. Outline the scope, objectives, potential outcomes, required resources, and key stakeholders involved to provide a clear direction for implementation. Consult with experts, stakeholders, and the public to validate and gather valuable feedback on the proposed plans and designs.

Additionally, consider future trends and projections to ensure the long-term relevance and sustainability of the selected projects and strategies. By incorporating feedback and anticipating future needs, stakeholders can create comprehensive and forward-looking plans that effectively address the freight corridor's challenges and meet the evolving demands of the transportation landscape.

Procedure 4: Public Engagement and Input
Consult with relevant experts, professionals, and technical advisors to gain insights into the feasibility and effectiveness of proposed projects and strategies.
Seek validation and feedback from stakeholders to ensure alignment with their needs and perspectives. Engage the public through meetings, surveys, or online platforms. Consider community interests and concerns to ensure the proposed projects have local support.

Procedure 5: Refinement and Finalization
Refine the proposed projects and strategies based on the valuable feedback and assessments received from stakeholders. Finalize the list of prioritized projects and strategies that align with the corridor's objectives. Integrate the selected projects and strategies into a comprehensive corridor plan.

By following this procedure, stakeholders can identify and implement potential freight projects and strategies that effectively address the corridor's challenges and contribute to the overall improvement of freight movement within the corridor as applicable, based on the setting and overall priority considerations associated with the corridor plan being completed. The development of a corridor plan ensures a systematic and coordinated approach to optimize the corridor's performance, efficiency, and sustainability while meeting the diverse needs of stakeholders.

STEP 5: ANALYZE IMPROVEMENT STRATEGIES

GOAL: Evaluate a broad set of solutions for the corridor that can address the identified issues and opportunities.

- ☑ Consult local and regional freight stakeholders and plans to determine if proposed projects and strategies align with RTPs, SCSs, LCPs, and General Plans.
- ☑ Identify how freight movement projects in the corridor may impact the environment, priority populations, maintenance, and asset management.

5.1 KEY ACTIVITIES

The analysis of possible improvement strategies begins with defining a set of investment/improvement scenarios to be analyzed, then populating those scenarios with potential projects. The system analysis for corridors is described below for three levels ofrelative effort:

- **Low:** Qualitative analysis of performance impact in a matrix format, supplemented bytravel demand model screening and/or sketch-planning tools (such as Cal B/C).

- **Medium:** Deterministic or Macrosimulation operational analysis tool (such as the Highway Capacity Model tool FREEVAL, FREQ or OPT), supplemented with sketch-planning tools (such as Cal B/C).

- **High:** Meso- or Micro-simulation operational analysis tool (such as AIMSUN or VISSIM),supplemented with sketch-planning tools (such as Cal B/C).

No matter the level of detail the performance and evaluation tools provide, the corridor team should summarize those results qualitatively (by scenario, investment package or project group) into relative levels of benefit (high, medium, low or none), along with any supporting quantitative information (such as CAL B/C). If the Analysis Plan involves acquiring more detailed analysis tools over time, then the corridor plan should explain when, in Step 8, these new tools will be utilized. Upon completing the corridor study andone or more elements have been constructed, the corridor must be reevaluated to measure performance and assess desired outcomes.

5.2 OVERARCHING CONCERNS AND CONSIDERATIONS

- Do the strategies reflect an equitable distribution of benefits and burdens supported by data?

- Is there strong community support for the projects proposed?

- What mitigation, if any, will be required of the freight sector?

- How does the strategy prepare for a changing climate?
- How does the strategy demonstrate stewardship of the environment?
- How does the strategy contribute to a multimodal transportation network?
- Have maintenance and asset management resources been considered for the use-lifeof proposed projects?
- Are any innovative solutions proposed (e.g., advanced technologies to optimize efficiency, accessibility, or VMT reductions)?

5.3 PROCEDURE TO ANALYZE IMPROVEMENT STRATEGIES

By following the streamlined procedures provided below, stakeholders can conduct a thorough analysis of freight improvement strategies, ensuring the selection of effective and sustainable measures that enhance the freight corridor's performance and meet the needs of all involved parties.

The procedures discussed below, empowers stakeholders to effectively analyze freight improvement strategies, select optimal measures, and implement a comprehensive corridor plan. This method not only enhances efficiency, safety, and sustainability but also caters to the diverse needs of stakeholders, ensuring a well-rounded approach to freight corridor planning and optimization.

Procedure 1: Objective Definition and Inventory
To conduct a comprehensive analysis, start by clearly defining the goal and objectives, such as enhancing freight efficiency, reducing travel time, improving safety, or promoting sustainable practices within the freight corridor.

Gather a comprehensive list of potential improvement strategies by drawing from existing transportation plans, studies, industry best practices, and innovative ideas generated through stakeholder engagement.

By precisely defining the analysis objectives and curating a diverse inventory of improvement strategies, stakeholders can conduct a thorough assessment to identify the most suitable and effective measures for optimizing the freight corridor's performance and meeting its sustainability goals.

Procedure 2: Evaluation Criteria and Data Collection
To ensure a robust evaluation process, establish evaluation criteria that align with the specific needs and objectives of the freight corridor. The criteria may include effectiveness, feasibility, cost-efficiency, environmental features, and stakeholder acceptance. Gather relevant data on the current freight corridor performance, encompassing freight volumes, truck travel time, traffic patterns, infrastructure conditions, and safety records.

Conduct a baseline assessment to benchmark the corridor's current performance

and establish a reference point for evaluating the impact of improvement strategies. By establishing clear evaluation criteria and gathering pertinent data, stakeholders can conduct a comprehensive and data-driven assessment of improvement strategies, ensuring their alignment with the corridor's goals and optimizing freight movement within the corridor.

Procedure 3: Modeling and Impact Analysis
Utilize modeling and simulation tools to thoroughly assess the potential impact of each improvement strategy on freight movement within the corridor. Analyze various scenarios to understand how these strategies interact and their combined effects on corridor performance. By employing simulation tools, stakeholders can gain valuable insights into the potential impact of each strategy, allowing for data-driven decision-making and a comprehensive evaluation of the improvement measures.

Determine the pros and cons of each strategy to make informed decisions that optimize the corridor's performance, efficiency, and sustainability. Combining quantitative data analysis with qualitative insights ensures a holistic assessment, empowering stakeholders to implement the most effective improvement strategies that cater to the freight corridor's specific needs and objectives.

Procedure 4: Stakeholder Engagement and Assessment
Engage with key stakeholders, including government agencies, freight operators, logistics companies, and/or other entities as may be pertinent to the setting of the corridor plan being completed, along with the associated local communities, to actively seek their input and feedback on the proposed improvement strategies. Consider stakeholders' perspectives and concerns carefully to ensure that the selected strategies align with their needs, priorities, and interests.

By involving stakeholders in the decision-making process, stakeholders can contribute valuable insights and foster a collaborative approach to developing improvement measures that truly cater to the freight corridor's requirements and benefit all involved parties.

Procedure 5: Prioritization and Monitoring Plan
Rank the improvement strategies based on their alignment with the assessment objectives, potential impact, feasibility, and stakeholder feedback. Prioritize the most promising improvement strategies that offer the best balance of benefits and feasibility to optimize the freight corridor's performance. Monitor and track the implementation of improvement strategies over time.

Establish clear performance metrics and KPIs that will be used to measure the success and effectiveness of the implemented improvements. By following this methodical approach, stakeholders can identify and focus on the most effective improvement strategies, ensuring efficient freight corridor planning and continual progress towards meeting the corridor's objectives and expectations.

STEP 6: SELECT AND PRIORITIZE SOLUTIONS

GOAL: Provide a recommended set of solutions for the corridor that can address the identified issues and opportunities.

- ☑ Identify, evaluate, and analyze freight planning solutions relevant to the corridor.
- ☑ Develop a comprehensive plan to outline timelines and responsibilities and review with stakeholders to prioritize improvement strategies.

6.1 KEY ACTIVITIES

Caltrans is committed to developing corridor plans that identify and recommend transportation strategies and improvements in coordination with our planning partners, resulting in a range of pre-Project Initiation Document (PID) project candidates and non-project strategies that achieve Caltrans goals and objectives. They should also outline a corridor vision for improving and operating the system in a manner that achieves the state's transportation goals.

The corridor team meets to make decisions on which corridor projects and strategies to recommend and prioritizes those recommended by assigning an expected implementation timeframe goal: Short (1-4 years), Medium (5-10 years) or Long Term (11+ Years). Recommendations of the corridor plan are meant to feed into Caltrans District System Planning process and regional transportation planning process.

The combination of promising strategies can be summarized in a Corridor Integration Opportunities section of the plan outlining how the corridor is expected to operate, including recommended technical, organizational, and institutional arrangements necessary for the benefits of the corridor improvements to be fully realized. Project sequencing can increase or minimize negative impacts of proposed projects. Refer back to lessons learned in *Step 4: Identify Potential Projects and Strategies* and reconvene with stakeholders engaged in Step 4 to confirm support for the implementation plan. Adjust the project prioritization methodology based on stakeholder feedback.

6.2 OVERARCHING CONSIDERATIONS

In the selection and prioritization process, solutions and projects can be recommended based on overarching considerations, such as how well they align with current state plans, policies, goals, and whether they incorporate stakeholder feedback.

- Consider the level of benefit and alignment to current state plans, policies, and goals, and other overarching considerations related to freight and goods movement.

- Determine the costs and benefits to State Transportation Network (STN) users, communities, and any other stakeholders when prioritizing improvement strategies.

Additional Considerations to Include

- Do the priorities of the plan align with existing state/local policies and guidance?
- Has public engagement been meaningfully conducted, and feedback incorporated? Has public engagement been adequately documented?
- Have implementation timeframes been assigned to each project?
- Does the plan illustrate a logical progression of projects that culminates in the selected corridor vision?
- Does this project need a Critical Urban/Rural Freight Corridor CUFC/CRFC designation?
- Can strategies and potential solutions be integrated into SHOPP projects or is it more appropriate to create standalone projects?

6.3 PROCEDURE TO SELECT AND PRIORITIZE SOLUTIONS

By following the procedures provided below, stakeholders can methodically select and prioritize freight planning solutions that optimize the performance of the freight aspect of the corridor, meet sustainability goals, and ensure efficient and safe freight movement, while accounting for the diverse needs and perspectives of all involved parties.

Procedure 1: Solution Identification and Stakeholder Engagement

To identify potential freight planning solutions relevant to the corridor, conduct a comprehensive review of existing transportation plans, studies, and best practices. Additionally, engage with key stakeholders, including government agencies, freight operators, logistics companies, industry associations, and local communities, to gather their valuable input and perspectives on the potential solutions.

By combining insights from existing plans and stakeholder feedback, stakeholders can gain a comprehensive understanding of the freight corridor's needs and preferences, enabling the selection of well-informed and effective planning solutions that cater to the diverse requirements of all involved parties.

Procedure 2: Evaluation Criteria and Data Analysis

To ensure a comprehensive evaluation of planning solutions, begin by defining clear evaluation criteria that align with the corridor's specific needs and objectives. Consider factors such as cost-effectiveness, environmental features, scalability, technical feasibility, and stakeholder acceptance to guide the assessment process. Gather relevant data on the freight corridor's performance, traffic patterns,

infrastructure condition, safety records, and environmental features. Analyze the collected data to assess the potential impact of each planning solution on freight movement within the corridor. Utilize modeling tools as necessary to gain deeper insights into the potential outcomes and benefits of the proposed solutions.

By incorporating well-defined evaluation criteria and utilizing data-driven analysis, stakeholders can make informed decisions to select planning solutions that best address the corridor's unique challenges while ensuring sustainable and efficient freight movement within the corridor.

Procedure 3: Environmental Scan

An environmental scan should be conducted to identify important environmental issues, advanced mitigation needed, and other factors. For instance, wetlands and other sensitive habitats are not a factor to be modeled for travel demand but can influence corridor development in terms of the location and type of improvement scenarios that might be considered feasible. As a result, sensitive habitats and landforms need to be identified. Other factors that should be identified include hazardous materials sites, and other sensitive land uses related to air quality and noise. High-level outreach and consultation to resource agencies and organizations may be helpful in conducting this activity. Furthermore, identify areas that are prone to potential environmental changes caused by climate change, such as sea level rise, storm surges, coastal erosion, landslides, and wildfires. Assess the sections of the corridor that may be exposed to future climate change-related risks.

Procedure 4: Cost-Benefit Analysis and Prioritization

Conduct a thorough cost-benefit analysis for each planning solution, carefully evaluating the anticipated benefits in relation to the implementation costs. Give preference to solutions that demonstrate substantial benefits and cost-effectiveness in efficiently meeting the corridor's requirements. Rank the planning solutions based on their alignment with the established assessment criteria, potential impact, feasibility, stakeholder feedback, and the results of the cost-benefit analysis.

Focus on prioritizing the solutions that align most effectively with the corridor's objectives and constraints, ensuring an optimal balance between benefits and resource utilization. By performing a comprehensive cost-benefit analysis, stakeholders can make well-informed decisions and select planning solutions that maximize benefits and contribute significantly to the corridor's overall efficiency and sustainability.

Procedure 5: Comprehensive Plan Development

Integrate the selected and prioritized planning solutions to create a corridor plan. This plan should outline clear implementation timelines, responsibilities, and resource allocation for each solution. Ensure that the final plan addresses the corridor's specific needs and objectives while promoting efficiency, safety, and sustainability.

Moreover, ensure that the plan aligns with stakeholders' interests and expectations, fostering a collaborative and inclusive approach to corridor planning. By combining

effective planning solutions and outlining their implementation details, stakeholders can create a well-coordinated and actionable corridor plan that optimizes performance, meets diverse requirements, and drives positive impacts for all involved parties.

STEP 7: PUBLISH/IMPLEMENT CORRIDOR PLANS

GOAL: An adopted and published corridor plan that defines how a corridor is performing, why it is performing that way, and recommends projects and strategies that achieve the corridor goals.

- ☑ Consider all potential users of the corridor plan when communicating goods movement opportunities and impacts to the corridor while highlighting potential benefits of adaptation strategies being recommended.
- ☑ Include helpful images and data visualizations that provide real-world context to the information being presented in the plan.

7.1 KEY ACTIVITIES

The publication of the corridor plan and any communication materials needs to be American Disability Act (ADA) compliant and if necessary, consider publishing communication related material in other languages according to community's needs along corridor. The implementation plan outlines a series of activities and projects that once completed should achieve the overall vision and benefits targeted by the corridor planning team and identified in the final plan. Roles and responsibilities for implementation can be identified in an agreement between the agencies such as a Memo of Understanding (MOU).

Publication of the Corridor Plan does not represent the end of the corridor planning process but is an important milestone that will be revisited by the corridor team in future review cycles.

Include a pathway of how freight recommendations from the Corridor Plan will be included in Regional Transportation Plans, local circulation plans, port master plans, District System Management Plans, etc., as may be applicable. Provide a narrative explaining how the recommendations are anticipated to potentially advance toward implementation and the project development process. Priorities should be fiscally sound and realistic, will need to be eventually considered for inclusion into the Transportation Improvement Program (TIP), and will have to be compatible with state, regional, and local plans, policies, and programs.

7.2 OVERARCHING CONCERNS AND CONSIDERATIONS

- What are the timeframes for meeting the performance targets? Do any corridor goals or objectives need to be accomplished by a certain time?
- Is the Corridor part of the National Highway Freight Network?
- Has a Critical Urban/Rural Freight Corridor CUFC/CRFC designation been obtained, if applicable and necessary?
- Are PIDs or Feasibility Studies needed?
- Are there any projects which can begin immediately?
- Will grant applications be prepared?
- Are there opportunities to partner with other public agencies or the private sector to implement some of recommendations?

7.3 PROCEDURE TO PUBLISH AND IMPLEMENT CORRIDOR PLANS

The procedures below provide a guide to publish and implement the corridor plan, ensuring broad support and successful execution of improvement strategies for optimized freight movement.

Procedure 1: Plan Finalization and Stakeholder Approval
Finalize the corridor plan, incorporating all the selected and prioritized improvement strategies and projects. Comprehensively document the plan, providing detailed descriptions of each strategy, along with clear timelines, responsibilities, and resource requirements. Share the finalized corridor plan with key stakeholders, including government agencies, transportation authorities, logistics companies, industry associations, and local communities.

Seek feedback and input from stakeholders to address any concerns or suggestions, ensuring a collaborative and inclusive approach to the plan. Obtain necessary approvals and endorsements from management, solidifying the plan's support and commitment.

By finalizing the corridor plan and engaging stakeholders throughout the process, stakeholders can ensure a well-structured and well-received plan that optimizes the corridor's performance, meets stakeholder needs, and contributes to the overall development and sustainability of the freight corridor.

Procedure 2: Public Engagement and Resource Allocation
Conduct public information sessions and workshops to effectively communicate the corridor plan to the broader community. Engage with the public, providing clear explanations about the plan's benefits, potential impacts, and overall importance.

Seek support from the community while addressing any concerns they may have. Identify and secure the necessary financial resources and funding for successful plan implementation.

By conducting transparent and informative public sessions and actively collaborating with funding partners, stakeholders can garner widespread support, secure necessary funding, and ensure the successful implementation of the Corridor Plan.

Procedure 3: Implementation Oversight and Coordination
Establish a dedicated project management team responsible for overseeing the seamless implementation of the corridor plan. This team will ensure that each improvement strategy and project is executed as per the defined timelines and budget. To facilitate coordination and collaboration among various stakeholders involved in the implementation process, encourage regular communication and the exchange of information.

By establishing an efficient project management team and fostering effective stakeholder collaboration, stakeholders can proactively monitor progress, address challenges, and ensure successful plan implementation.

Procedure 4: Performance Monitoring and Evaluation
During the implementation phase, be prepared to adapt the corridor plan if unforeseen circumstances or new opportunities arise. Remain flexible and open to incorporating changes that align with evolving needs and objectives, ensuring the plan's relevance and responsiveness. Set up KPIs to measure the success and effectiveness of the implemented improvement strategies, allowing stakeholders to track progress and outcomes effectively.

Conduct periodic evaluations and generate progress reports to keep all stakeholders well-informed about the plan's achievements and outcomes. By staying adaptable and maintaining a data-driven approach, stakeholders can continuously monitor the plan's performance and make necessary adjustments, ensuring the freight corridor's long-term success and sustainability.

Procedure 5: Review and Community Feedback
Continuously engage with local communities and stakeholders to assess the plan's impact on their needs and concerns. Incorporate community feedback into ongoing improvements and updates to enhance the plan's effectiveness and relevance.

Regularly review the corridor plan to ensure its alignment with changing circumstances, emerging trends, technological advancements, and new challenges.

By following this streamlined five-step procedure, stakeholders can efficiently publish and implement the corridor plan, ensuring broad support and successful execution

of improvement strategies for optimized freight movement. Moreover, through continuous engagement and periodic updates, stakeholders can maintain the plan's effectiveness and adaptability, fostering a sustainable and future-ready freight corridor that meets the evolving needs of all stakeholders involved.

STEP 8: MONITOR AND EVALUATE PROGRESS

GOAL: Provide ongoing reporting on corridor performance.

- ☑ Include goods movement performance metrics in monitoring.
- ☑ Continue to monitor good movement needs along the corridor using the best available data to determine what strategies are working and where new measures may need to take place.

8.1 KEY ACTIVITIES

The lead agency and corridor team need to ensure mechanisms are in place for ongoing monitoring and evaluation. The mechanisms should include a plan for monitoring of corridor performance indicators, regular updates of the corridor performance assessment and publication of results. A key element is the monitoring of the plan to ensure implementation is successful which should be conducted by representatives of the partner agencies.

Additionally, there should be a process established to review the plan in the event of any major new changes affecting the corridor (e.g., economic, technological, population, policy/regulatory, or extreme weather events). The corridor plan may also identify triggers and events that may necessitate the update of the Plan and a reassessment of strategies. Ongoing reporting on corridor performance is conducted to evaluate the effectiveness of recommended projects and strategies on corridor performance over time. This reporting should be shared with affected communities at regularly scheduled intervals, and freshly solicited feedback.

8.2 OVERARCHING CONCERNS AND CONSIDERATIONS

- Has a schedule been set to gather feedback on the implementation plan?
- Has a schedule been established to re-evaluate the success of the chosen strategy? Who will performance metrics updates be reported to?
- Have triggers been defined for unscheduled revision to the plan? Who is responsible for monitoring for the appearance of triggers?
- What are the roles and responsibilities of corridor plan team members in response to disruptive events or "triggers"?

- What mechanism is available to exchange lessons learned, across the state?
- Does this corridor need a Critical Urban/Rural Freight Corridor CUFC/CRFC designation?

8.3 PROCEDURE TO MONITOR AND EVALUATE PROGRESS

By following the procedures provided below, stakeholders can effectively monitor and evaluate the progress of the corridor plan, make informed decisions, and continuously improve the plan's implementation to achieve its objectives efficiently.

Procedure 1: Establish Performance Metrics and Baseline Data
Define specific performance metrics and KPIs that align with the objectives of the corridor plan. Ensure that the selected metrics are measurable, relevant, and trackable over time, allowing for effective monitoring and evaluation.

Gather baseline data for each performance metric before implementing the Corridor Plan to establish a reference point for comparison and measure progress throughout the monitoring process.

By defining clear metrics and obtaining baseline data, stakeholders can effectively track the plan's performance, measure its success, and make data-driven decisions to continually enhance the freight corridor's efficiency and effectiveness.

Procedure 2: Regular Data Collection and Analysis
Use the feedback and evaluation results to identify areas that require improvement or modification in the corridor plan. Be prepared to adapt and make necessary adjustments to enhance the plan's effectiveness based on the gathered insights. Conduct periodic reviews of the performance evaluation process to ensure its accuracy and relevance, implementing improvements in data collection, analysis, and reporting as needed. Benchmark the corridor plan's progress against industry standards and best practices, learning from successful practices in other similar corridors to identify opportunities for improvement.

Implement a systematic data collection process to gather relevant information on a regular basis and analyze the collected data to assess the progress and effectiveness of the implemented improvement strategies. Use the collected data to track the performance of the freight-focused corridor plan against the established performance metrics and KPIs, preparing periodic progress reports that summarize the achievements, challenges, and areas for improvement.
By consistently reviewing and utilizing data-driven insights, stakeholders can ensure continuous improvement, refine the plan's strategies, and optimize freight movement within the corridor effectively.

Procedure 3: Stakeholder Engagement and Feedback
Engage with key stakeholders, including government agencies, freight operators, logistics companies, industry associations, and local communities. Obtain valuable

feedback from stakeholders regarding the plan's impact, effectiveness, and any emerging concerns or opportunities.

By actively involving these stakeholders in the process and seeking their input, the corridor plan can be continuously improved to meet the evolving needs and expectations of all parties involved.

Procedure 4: Adaptation and Continuous Improvement
Analyze the evaluation results and carefully consider stakeholder feedback to identify areas for improvement in the corridor plan. Proactively adapt and make necessary adjustments to enhance the plan's effectiveness, ensuring it remains responsive to changing needs and optimally addresses the corridor's requirements. By incorporating insights from evaluations and considering valuable stakeholder input, stakeholders can continually refine and strengthen the Corridor Plan, leading to improved performance and better outcomes for all stakeholders involved.

Acknowledge policies, processes, regulations and/or guidelines that could change how goods move along and through the Surface Transportation Assistance Act (STAA) routes included in the scope of the corridor plan. Consider pre PID analysis of the Corridor Plan short-, mid-, and long-term scenarios using CSIS, CAPTI alignment, and Cal B/C Analysis Tool to see if they align, and that the expected improvement outcomes will be realized as they are anticipated to be.

Procedure 5: Reporting and Communication
Generate periodic progress reports that succinctly summarize the achievements and highlight areas for improvement in the corridor plan. Share these evaluation outcomes and progress reports with all stakeholders, including the public, to uphold transparency and foster strong support for the plan.

By regularly communicating the plan's advancements and addressing identified areas for improvement, stakeholders can stay informed and actively contribute to the continued success and development of the freight corridor.

APPENDIX A: GOALS, ACRONYMS, & KEY TERMS

FREIGHT GOALS FOR THE CORRIDOR PLANNING PROCESS

Below are each of the outcomes that are stated in the blue boxes at the beginning of each step. It is important to note that while these goals are important for considering freight in the corridor planning process, not all goals will result in items that will be included in the freight section of a corridor plan.

Step 1: Scope Effort

- ☑ Identify freight stakeholders, district freight planners, and responsibilities.
- ☑ Define the corridor's relation to freight, including warehousing, commercial facilities, multimodal goods movement opportunities, and conflicts between other modes of travel.
- ☑ Identify key data sources, plans, and guidance for present and future goods movement within the corridor planning area.

Step 2: Gather Information

- ☑ Research and locate available data sources for all climate change stressors affecting a corridor, while considering social and public health aspects of climate change affecting a corridor and with an understanding that transportation-based priority populations will face greater difficulty in adapting to climate change.
- ☑ If the corridor is within the coastal zone, BCDC, DSC, or a Local Coastal Program jurisdiction, carefully consider the regulatory environment for the respective jurisdiction and how proposed strategies will align with guidance for infrastructure located in these jurisdictions.
- ☑ If the corridor is within the coastal zone, BCDC, DSC, or a Local Coastal Program jurisdiction, carefully consider the regulatory environment for the respective jurisdiction and how proposed strategies will align with guidance for infrastructure located in these jurisdictions.

Step 3: Conduct Baseline Performance Assessment

- ☑ Use best available data to determine freight performance indicators to identify potential goods movement improvements.
- ☑ Engage with freight stakeholders to better understand the needs of current and future goods movement within the corridor.
- ☑ Use available resources to consider impacts of freight movements on all users of the corridor.

Step 4: Identify Potential Projects and Solutions

- ☑ Identify potential strategies and projects to address goods movement impacts at locations along the corridor in the short-, medium-, and long-term while considering the impacts to all aspects of the corridor and surrounding systems if implemented.
- ☑ Engage with stakeholders and partners to refine strategies and projects to prioritize goods movement improvements within the corridor.

Step 5: Analyze Improvement Strategies

- ☑ Consult local and regional freight stakeholders and plans to determine if proposed projects and strategies align with RTPs, SCSs, LCPs, and General Plans.
- ☑ Identify how freight movement projects in the corridor may impact the environment, priority populations, maintenance, and asset management.

Step 6: Select and Prioritize Solutions

- ☑ Identify, evaluate, and analyze freight planning solutions relevant to the corridor.
- ☑ Develop a comprehensive plan to outline timelines and responsibilities and review with stakeholders to prioritize improvement strategies.

Step 7: Publish/Implement Corridor Plans

- ☑ Consider all potential users of the corridor plan when communicating goods movement opportunities and impacts to the corridor while highlighting potential benefits of adaptation strategies being recommended.
- ☑ Include helpful images and data visualizations that provide real-world context to the information being presented in the plan.

Step 8: Monitor and Evaluate Progress

- ☑ Include goods movement performance metrics in monitoring.
- ☑ Continue to monitor good movement needs along the corridor using the best available data to determine what strategies are working and where new measures may need to take place.

ACRONYMS

AB	Assembly Bill
AIP	Airport Improvement Program
AQMD	Air Quality Management District
CalSTA	California State Transportation Agency

CARB	California Air Resources Board
CEC	California Energy Commission
CFMP	California Freight Mobility Plan
CO	Carbon Monoxide
CMAQ	Congestion Mitigation & Air Quality Improvement Program
CPUC	California Public Utilities Commission
CRFC	Critical Rural Freight Corridor
CSIS	California State Investment Strategy
CSFAP	California Sustainable Freight Action Plan
CTP	California Transportation Plan
CTP	Clean Truck Program
CUFC	Critical Urban Freight Corridor
DOT	Department of Transportation (Caltrans)
DOTP	Caltrans HQ Division of Transportation Planning
EO	Executive Order
FAST Act	Fixing America's Surface Transportation Act (2015)
FHWA	Federal Highway Administration
GHG	Greenhouse Gases
GIS	Geographic Information System
HQ	Headquarters; typically referring to the Caltrans headquarters
IIJA	Infrastructure Investment Jobs Act
ITIP	Interregional Transportation Improvement Program
ITSP	Interregional Transportation Strategic Plan
LPP	Local Partnership Program
MARAD	Maritime Administration (US DOT)
NAAQS	National Ambient Air Quality Standards
NOx	Nitrogen Oxides
NHFN	National Highway Freight Network
NHFP	National Highway Freight Program
OPR	California Governor's Office of Planning & Research
PM	Particulate Matter
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
SB	Senate Bill
SHS	California State Highway System
STAA	Surface Transportation Assistance Act
STIP	State Transportation Improvement Program
TCEP	Trade Corridor Enhancement Program
TERP	Truck Emissions Reduction Program
USDOT	United States Department of Transportation
USC	United States Code
VOC	Volatile Organic Compounds
VMT	Vehicle-Miles Traveled
ZEV	Zero-Emission Vehicle

KEY TERMS

Air Quality Management District (AQMD): In 1947, the State of California enacted the Air Pollution Control Act that authorized the creation of Air Pollution Control Districts (APCD) or Air Quality Management Districts (AQMD) in every county of the State. California has 22 APCDs, 12 AQMDs and 1 Air Resources District for a total of 35 districts.

Bottleneck: A section of a highway or rail network that experiences operational problems such as congestion. Bottlenecks may result from factors such as major intersections, reduced roadway width, or steep grades that can slow trucks.

Capacity: The physical facilities, personnel, and process available to meet the product of service needs of the customers. Capacity generally refers to the maximum output or producing ability of a machine, a person, a process, a factory, a product, or a service. Regarding the transportation system, this term references the ability of the transportation infrastructure to accommodate traffic flow.

Drayage: Transportation of freight (often containers from railyard or seaports) by truck typically over a relatively short distance to an intermediate or final destination; may also refer to a charge for pickup/delivery of goods moving short distances (e.g., from marine terminal to warehouse). Originally, the term dray referred to a cart, usually three-sided, used to haul goods.

Fixing America's Surface Transportation Act (FAST Act): Is a five-year federal funding and authorization bill signed into law in December 2015 that governs the U.S. federal surface transportation spending. The FAST Act includes a provision that requires each State that receives funding under the National Highway Freight Program to develop a State Freight Plan that provides a comprehensive plan for the immediate and long-range planning activities and investments of the State.

Goods Movement: The processes and activities involved in picking up, moving, and delivering products or raw materials from points of origin (or producers) to points of delivery or use (or consumers). Goods movement relies on transportation, financial, and information systems that involve global, international, national, interstate, statewide, regional, and local networks.

Highway: Any road, street, parkway, or freeway/expressway that includes rights-of-way, bridges, railroad-highway crossings, tunnels, drainage structures, signs, guardrail, and protective structures in connection with highways. The highway further includes that portion of any interstate or international bridge or tunnel and the approaches thereto (23 U.S.C. 101a).

Infrastructure: In goods movement, the roads and highways, tunnels and bridges, rail lines and yards, seaports and improved waterways, airports, and related intermodal yards and communication systems (including intelligent transportation systems) that support the movement of products and raw materials.

Logistics: In the freight industry, a collective term for a wide set of activities dedicated to the production, transformation, and distribution of goods, from raw material sourcing to final market distribution, as well as the related information flows and scheduling.

Multimodal: The availability of multiple transportation options, or modes, within a system or a corridor. The transportation of goods under a single contract but performed with at least two different means of transport (See also intermodal freight transportation).

National Highway Freight System: This is a network of highways identified as the most critical highway portions of the U.S. freight transportation system determined by measurable and objective national data. As of the 2022 Congressional re-designation of the PHFS, this network consists of about 41,799 centerlines miles, including 38,014 centerline miles of Interstate and 3,785 centerline miles of non-Interstate roads. PHFS is managed by the Office of Freight Management and Operations.

Performance Measures: Objective, usually quantified standards used to evaluate how well a system is functioning when compared to baseline goals or objectives.

Supply Chain: A network of production, trade, and services required to move a product or service from supplier to customer, beginning with the transformation of raw materials, through intermediate manufacturing stages, to the delivery of finished goods to a market.

Sustainability: Policies and strategies that are aimed at meeting contemporary social needs without compromising the ability of future generations to meet their needs.

APPENDIX B: LIST OF RESOURCES AND TOOLS

Corridor Planning Process Guide: The Corridor Planning Process Guide was prepared for the California Department of Transportation (Caltrans) by the Division of Transportation Planning for use in preparing corridor planning documents. The Guide provides a comprehensive planning approach through desired protocols and procedures to identify and implement multimodal transportation needs. Planners can review the Guide for information on the general procedures for corridor planning. For supplementary guides to the Corridor Planning Process Guide, please access the Emphasis Area Guides on the Corridor and System Planning website under Technical Resources, Tools and Training.

California Healthy Places Index: The California Healthy Places Index, developed by the Public Health Alliance of Southern California and visualized by Axis Maps, is a powerful tool to explore the community conditions that impact life expectancy. We created the HPI to disrupt structural inequities by using data to create change. The HPI helps prioritize public and private investments, resources, and programs in neighborhoods where they are needed most.

The Transportation Disparities Mapping Tool: This map shows the distribution of access to high-quality transit locations in California census tracts. This indicator defines a high-quality transit location as being within a quarter-mile of transit stops with a high level of service during the morning commute. Planners generally accept the quarter-mile as the distance a typical person is willing to walk to local transit service. It was constructed using General Transit Feed Specification format (GTFS) and developed as part of an earlier project by the researchers for CARB/Caltrans. To the best of our knowledge, this indicator is the most comprehensive access to transit measure available for California.

CalEnviroScreen 4.0: Developed by CalEPA and its Office of Environmental Health Hazard Assessment (OEHHA), CalEnviroScreen includes an online mapping tool, a supplemental race analysis and related documents. It analyzes data on environmental, public health and socioeconomic conditions in California's 8,000 census tracts to provide a clear picture of cumulative pollution burdens and vulnerabilities in communities throughout the state.

Freight Analysis Framework: The Freight Analysis Framework (FAF), produced through a partnership between Bureau of Transportation Statistics (BTS) and Federal Highway Administration (FHWA), integrates data from a variety of sources to create a comprehensive picture of freight movement among states and major metropolitan areas by all modes of transportation. Starting with data from the 2017 Commodity Flow Survey (CFS) and international trade data from the Census Bureau, FAF version 5 (FAF5) incorporates data from agriculture, extraction, utility, construction, service, and other sectors. This provides estimates for tonnage and value by regions of origin and destination, commodity type, and mode for base year 2017 and a 30- year forecasts. The **Freight Analysis Framework Version 5 User's Guide** can be found here.

PEMS: Caltrans Performance Measurement System (PeMS). The traffic data

displayed on the map is collected in real-time from over940,000 individual detectors. These sensors span the freeway system across all major metropolitan areas of the State of California. Data includes Vehicle Classification (Heavy duty truck), Weight-In-Motion information, Truck VMT, etc. The **PeMS Version 6 User Guide** can be found here.

Cal-B/C: The Transportation Economics Branch provides transportation decision makers with expert research, analysis and legislative information to ensure productive and efficient use of public resources. The branch conducts economic analyses such as performing benefit-cost, economic impact and estimating motorist value of time. In addition, the branch publishes a county socioeconomic forecast and an overview of transportation funding in California. The **Cal-B/C IF version 8.1** is Caltrans' California Benefit/Cost Analysis Tool which focuses on intermodal freight improvements (e.g., freight network expansion and terminal efficiency) can be found here. The **Cal-B/C IF v8.1 User's Guide** can be found here.The branch assists Caltrans Headquarters and district offices as well as entities such as the California State Transportation Agency, the California Transportation Commission, and external stakeholders.
The Transportation Economics Branch can be reached at eab@dot.ca.gov.

Caltrans GIS Data: Caltrans GIS data includes datasets throughout the department and includes highway, boundary, aviation, and railroad datasets. Examples of Freight Data available:

- Commercial Vehicle Enforcement Facilities
- Caltrans All Roads Linear Referencing Services (LRS)
- Airport Boundaries
- Military Airport
- Rail Lines BNSF, UPRR
- Freight Classification Yards
- Etc.

Caltrans Office of Traffic Census: The Caltrans Census Program provides Traffic Counts, Monthly Vehicle Miles of Travel, and Truck Traffic Counts (AADTT).

Caltrans Statewide Truck Parking Study: This plan starts by identifying the current truck parking supply in the State. Then, it outlines the truck parking need based on safety, demand, and stakeholder input. Finally, this plan offers strategies that raise awareness for the truck parking challenge while improving safety, increasing freight competitiveness, reducing GHG emissions, and advancing equity. For appendixes and data please reach out to the Office of Strategic Freight planning.

The National Performance Management Research Data Set: The NPMRDS offers a free data source to State and Local transportation agencies for monitoring and reporting transportation system performance measures, as well as for setting and meeting mobility objectives and targets.

Bureau of Transportation Statistics: The Bureau of Transportation Statistics (BTS), part of the Department of Transportation (DOT) is the preeminent source of statistics on

commercial aviation, multimodal freight activity, and transportation economics, and provides context to decision makers and the public for understanding statistics on transportation.

Travel Demand Models: This website is designed to provide assistance and training for staff to conduct transportation analysis for corridor planning, travel demand modeling and forecasting, simulation model development and applications, and applications of other models and analysis tools. In addition to general modeling applications and statewide webinars, each Caltrans district has its own web page with customized training modules and documents, as applicable.

California Freight Advisory Committee: In 2013, Caltrans established the California Freight Advisory Committee (CFAC) in collaboration with the California Transportation Agency (CalSTA). The CFAC is a charter member advisory body representing public and private sector freight stakeholders, including representatives of ports, shippers, carriers, freight-related associations, the freight industry workforce, the transportation department of the State, and local governments.

APPENDIX C: POLICY AND LEGISLATION

POLICY

Incorporating freight into corridor planning involves considering and adhering to various policies and regulations at the federal, state, and departmental (agency or organization) levels. This ensures that the planning process complies with legal requirements, addresses economic and logistical realities, and reflects the specific needs of the region or state. Additionally, it promotes consistency and coordination among federal, state, and departmental efforts to improve freight transportation.

Below are policies to guide the process:

Federal Policies: These are policies established at the national level, often by federal agencies such as the U.S. Department of Transportation (USDOT). They provide overarching guidelines and requirements for transportation planning, including freight.

State Policies: Each state has its transportation policies and plans, which align with federal guidelines but also address state-specific needs and priorities. Many states develop their own Statewide Freight Plans, which outline how they will address freight-related challenges and opportunities. These Plans consider the unique economic and geographic factors within the state. States also often have environmental regulations that affect freight transportation, including emissions standards and environmental impact assessments for transportation projects.

Departmental Policies: These are policies specific to transportation agencies or departments, such as Caltrans in California. Departments like Caltrans may have specific corridor planning guidelines that detail the process for incorporating freight considerations into corridor planning activities. Transportation agencies often have policies for allocating funding to various projects, which can impact how freight-related projects are prioritized and funded. Stakeholder Engagement Guidelines may outline how transportation agencies engage with stakeholders, including the freight industry, local communities, and advocacy groups, during the planning process.

LEGISLATION

Federal Legislation

Below are federal legislations related to freight in the United States:

National Highway Freight Program (NHFP): This program, established under the FAST Act and reauthorized through the Infrastructure Investment Jobs Act, provides funding for projects that improve the movement of freight on highways and bridges. It aims to enhance the efficiency, safety, and reliability of the freight transportation system.

Projects of National and Regional Significance (PNRS): PNRS supports critical freight

and highway projects of national and regional significance.

National Multimodal Freight Network (NMFN): NMFN identifies key freight corridors and connectors across different transportation modes.

National Freight Strategic Plan (NFSP): The National Freight Strategic Plan outlines goals and strategies for improving the movement of freight at the national level.

RAISE (formerly TIGER and BUILD Grants): While not exclusively focused on freight, these competitive grant programs provide funding for transportation projects, including those that enhance freight mobility.

Water Resources Development Act (WRDA): WRDA legislation authorizes projects and programs related to water resources, including ports and waterways that are critical for freight transportation.

Port Infrastructure Development Program: Established in the Consolidated Appropriations Act of 2021, this program provides funding to improve and modernize port infrastructure, benefiting freight movements through ports.

Surface Transportation Reauthorization Acts: New surface transportation acts can vary in their scope and duration. The bills may include provisions related to freight by reauthorizing and provide funding for various transportation programs.

The Infrastructure Investment Jobs Act (IIJA) (2021): Builds upon the FAST Act investments and establishes a new Office of Multimodal Freight Infrastructure and Policy under the U.S. DOT Secretary to develop and manage the National Freight Strategic Plan (49 U.S.C. §70102). The National Multimodal Freight Network oversees the development of the State Freight Plans (SFP), provides SFP guidance, best practices, administers the multimodal freight grant programs, and establishes procedures for analyzing and evaluating grant applications. The National Multimodal Freight Network also assists States in establishing state freight advisory committees, multi-state freight mobility compacts, and provides input to the Bureau of Transportation Statistics regarding freight data and planning tools.

49 U.S.C. §70101 National Multimodal Freight Policy: Provides the national policy goals for maintaining and improving the condition and performance of the National Multimodal Freight Network and informs SFP.

23 U.S.C. §167 National Highway Freight Program: is a federal-aid formula funding program to improve the efficient movement of freight on the National Highway Freight Network (NHFN) and support the infrastructure and operational improvement investments of the United States. The Programs aim to strengthen economic competitiveness, reduce congestion, lower the cost of freight transportation, improve reliability, and increase productivity, safety, and resiliency in rural and urban areas.

23 U.S.C. §150 National Goals and Performance Management Measures: establishes the national policy framework and goals, performance measures, targets, and reporting requirements for the National Highway Performance Program, Regions, the Highway Safety Improvement Program, the Congestion Mitigation and Air Quality Program, and the national freight movement.

49 U.S.C. §70202 State Freight Plans: establishes the framework and requirements for the development of State Freight Plans.

49 U.S.C. §70201 State Freight Advisory Committees: establishes the state freight advisory committee framework, including representatives, qualifications, and committee roles.

Ocean Shipping Reform Act (2022): provides the Federal Maritime Commission (FMC) the means to enhance its supervision of international ocean shippers to eliminate unfair charges levied against importers, prevent unreasonable denial of American exports, and relieve economic stresses against American businesses and consumers.

Executive Order 14017 on American Supply Chains (2021): directs a review of the transportation and logistics industrial base to strengthen the resilience of America's supply chains.

Executive Order 14096 on Revitalizing Our Nation's Commitment to Environmental Justice for All (2023): works to ensure that all people, regardless of race, background, income, ability, Tribal affiliation, or zip code, can benefit from the vital safeguards enshrined in our nation's foundational environmental and civil rights laws.

Note: Please be aware that the legislative landscape can change, and new legislation may have been introduced or existing laws updated. For current information on federal legislation related to freight, please consult official government sources and legislative databases.

State Legislation

Below are state legislations critical to freight in the state of California:

California Freight Mobility Plan (CFMP): This Plan is dedicated to optimizing the improvement of freight mobility, efficiency, and sustainability throughout the state It outlines the st'te's freight transportation priorities and strategies, serving as a comprehensive framework to tackle challenges and enhance the overall efficiency of goods movement.

California Sustainable Freight Action Plan (CSFAP): This Plan is a comprehensive strategy to transition California's freight transport system to zero-emission technologies. It addresses issues related to emissions, energy efficiency, and infrastructure planning in the freight sector. It outlines a vision and framework for making California's freight transportation system more sustainable, efficient, and

environmentally friendly.

Advanced Clean Trucks Regulation: The California Air Resources Board (CARB) is in the process of developing proposals for innovative approaches and strategies aimed at transitioning from the conventional combustion technologies to zero emission everywhere feasible, and adopting near-zero emission powered by clean, low-carbon renewable fuels everywhere else. The goal of this proposed strategy is to achieve NOx and GHG emission reductions through advanced clean technology. Additionally, the initiative seeks to enhance the adoption of the first wave of zero-emission heavy-duty technology, specifically in applications well-suited to its use.

Advanced Clean Fleets Regulation (ACF): This regulation requires fleets that are well suited for electrification to reduce emissions through requirements to both phase-in the use of zero-emission vehicles for targeted fleets and requirements that manufacturers only manufacture ZEV trucks starting in the 2036 model year. This ACF regulation complements CARB's recently adopted Advanced Clean Trucks regulation, which will help advance the introduction of zero-emission technologies into California's truck fleets requiring fleets that are well suited for electrification to reduce emissions.

Truck and Bus Regulations: The California Air Resources Board (CARB) enforces regulations targeting emissions from trucks and buses, including those involved in freight transportation. These regulations set emission standards and deadlines for compliance.

In-Use Locomotive Regulation: This regulation, adopted by CARB, mandates the discontinuation of locomotives older than 23 years by 2030. Additionally, locomotives equipped with auto-shutdown features are prohibited from idling for more than 20 minutes starting in 2024. Locomotives manufactured in or after 2030 will be required to operate in zero-emissions configurations while in operations in California.

State Transportation Improvement Program (STIP): STIP is a program that allocates state transportation funds to various projects, including those related to freight transportation and infrastructure.

Senate Bill 1 (Beall, 2017): SB 1established the Trade Corridor Enhancement Program (TCEP), a biennial state funding program that provides $300 million annually for freight-related projects, which efficiently enhances the movement of goods along corridors that have a high freight volume. Subsequent legislation (SB 103, Committee on Budget and Fiscal Review, 2017), combined the Trade Corridor Enhancement Program funds with existing federal National Highway Freight Program funding.

Assembly Bill 32 (Nunez, 2006): The California Global Warming Solutions Act of 2006 created the Cap-and-Trade Program and established the goal of reducing California's Greenhouse Gas (GHG) emissions to 1990 levels by 2020.

Assembly Bill 133 (Weber, 2016): Provided a one-time transfer of $11M to the Trade

Corridor Improvements Fund (TCIF), a program initially implemented and funded by Proposition 1B. The TCIF funds could be used directly or indirectly to improve freight movement in key corridors.

Senate Bill 350 (De Leon, 2015): Establishes California's 2030 GHG reduction target of 40 percent below 1990 levels. To achieve this goal, SB-350 sets ambitious 2030 targets for energy efficiency and renewable electricity, among other actions aimed to reduce GHG emissions across the energy and transportation sectors.

Senate Bill 32 (Pavley, 2016): SB-32 amended the Global Warming Solution Act of 2006 by establishing a statewide GHG emission limit equivalent to a 40 percent decrease from 1990 levels by 2030.

Assembly Bill 617 (Garcia, 2017): Requires CARB and all local air districts to take measures to protect communities disproportionally impacted by air pollution with input from communities and air districts throughout California.

Senate Bill 671 (Gonzalez, 2021): Requires the California Transportation Commission (CTC) to prepare a Clean Freight Corridor Efficiency Assessment to identify freight corridors, segments of corridors, and the infrastructure needed to support the deployment of zero-emission medium and heavy-duty vehicles, the report was approved and adopted on December 6th, 2023. It also requires the State Freight Plan to include a description of needed infrastructure, projects, and operations for the deployment of zero-emission medium- and heavy-duty vehicles and the development of freight corridors identified according to California Government Code §14517.

Government Code §13978.8: Authorizes and requires the California Transportation Agency to develop a State Freight Plan to comply with federal requirements. This law also provides instructions for the inclusion of state requirements, and the submittal and approval of the Plan.

Government Code §14517: Requires the California Transportation Commission in coordination with the State Air Resources Board, Public Utilities Commission, State Energy Resources Conservation and Development Commission, and Governor's Office of Business and Economic Development, to develop the Clean Freight Corridor Efficiency Assessment.

Streets and Highways Code §2192: Establishes the Trade Corridors Improvement Fund and project eligibility guidelines. This program aims to make Highway improvements to accommodate the movement of freight more efficiently, particularly for ingress and egress to and from the state's land ports of entry, rail terminals, and seaports, including navigable inland waterways used to transport freight between seaports, land ports of entry, and airports, and to relieve traffic congestion along major trade or goods movement corridors.

Executive Order S-3-05: Requires continued reduction of transportation-related GHG

emissions to a new standard of 80 percent below 1990 levels by 2050.

Executive Order B-16-12: Reaffirms EO S-3-05 and calls for continued reduction of GHG emissions in the transportation sector to 80 percent below 1990 levels by 2050.

Executive Order B-30-15: Establishes a California GHG emissions target of 40 percent below 1990 levels by 2030 – the most aggressive benchmark enacted by a government in North America to reduce dangerous carbon emissions over the next decade and a half.

Executive Order B-32-15: Provides a vision for California's transition to a more efficient, more economically competitive, and less polluting freight transport system.

Executive Order N-19-19: Empowers the California State Transportation Agency (CalSTA) to leverage discretionary state transportation funds to help meet the state's climate goals.

Executive Order N-79-20: Moves the transportation sector toward a zero-emission future by requiring all in-state sales of new passenger cars and light-duty trucks to be zero-emission by 2035 and all medium- and heavy-duty vehicles operating in the state to be zero-emission by 2045, and all drayage trucks by 2035.

Executive Order N-19-21: Formalizes state agencies' partnership with the White House Administration's efforts to address state, national, and global supply chain challenges, and directs state agencies to develop longer-term proposals that support port operations and goods movement for consideration in the January 10 Governor's Budget.

Executive Order N-8-23: Establishes an Infrastructure Strike Team (Strike Team) to work across State agencies to maximize federal and state funding opportunities for California innovation and infrastructure projects. The Strike Team shall be composed of the Director of Finance, the Director of the Governor's Office of Business and Economic Development, the Director of the Office of Planning and Research, the Tribal Affairs Secretary, the Secretary of Transportation, the Secretary of the Natural Resources Agency, the Secretary of Business, Consumer Services, and Housing, the Secretary of Food and Agriculture, the Secretary of Labor and Workforce Development, the Secretary for Environmental Protection, and the Secretary of Government Operations. The President of the California Public Utilities Commission is requested to participate on the Strike Team.

Note: These are some of the important legislative and regulatory initiatives related to freight transportation in California. Please verify the status and details of these programs through official California state legislative sources and agencies for the most up-to-date information.

Departmental Policies

Table 1 - California Freight Mobility Plan 2023 Goals

Goal	Goal Title	Goal Description
1	Multimodal Mobility	Strategic investments to maintain, enhance, and modernize the multimodal freight transportation system to optimize integrated network efficiency, improve travel time reliability, and to achieve congestion reduction.
2	Economic Prosperity	Grow the economic competitiveness of California's freight sector through increased system efficiency, productivity, and workforce preparation.
3	Environmental Stewardship	Support strategies that eliminate, reduce, avoid and/or mitigate adverse environmental and public health impacts of the freight transportation system while promoting and enhancing public health and ecological restoration in the planning process.
4	Healthy Communities	Enhance community health and wellbeing by distributing the benefits of the goods movement system equitably across California's communities while making sure the environmental and public health costs of the system are not disproportionately borne by goods movement communities.
5	Safety and Resiliency	Eliminate freight-related deaths and serious injuries and improve system resilience by addressing infrastructure vulnerabilities associated with security threats, effects of climate change impacts, and natural disasters.
6	Asset Management	Maintain and preserve infrastructure assets using cost-beneficial treatment as indicated in the State Highway System Management Plan (SHSMP), per the federal FAST Act, California Streets, and Highway Code §164.6, Caltrans Director's Policy 35 Transportation Asset Management (DP-35), and other applicable state and federal statutes and regulations.
7	Connectivity and Accessibility	Provide transportation choices and improve system connectivity for all freight modes.

APPENDIX D: FUNDING SOURCES

DISCRETIONARY GRANT FUNDING PROGRAMS

Federal Funding Sources

Infrastructure for Rebuilding America (INFRA) (Section 11110): A national discretionary competitive grant program to advance administration priorities of rebuilding America's infrastructure and create jobs by funding highway and rail projects of regional and national economic significance. Under IIJA re-authorization, $8 billion will be apportioned over five years (averaging $1.6 billion a year) from FY 2022 - FY 2026.

MARAD Port Infrastructure Development Program: A federal competitive grant program that provided $230 million in discretionary funding for FY 2021 to improve facilities within, or outside of, and directly related to operations or an intermodal connection of coastal seaports, inland river ports, and Great Lakes ports.

National Infrastructure Project Assistance Program (Section 21201): A new IIJA competitive grant program that provides $5 billion for single or multi-year grants to projects generating national or regional economic, mobility, or safety benefits. Eligible projects include highway or bridge projects, freight intermodal or rail projects, and certain public transportation projects.

Port Infrastructure Development Program (Division J): An IIJA program that appropriates $2.25 billion over five years, or $450 million annually for the Port Infrastructure Development Program (PIDP) between FY 2022 - FY 2026.

Reduction of Truck Emissions at Port Facilities (Section 11402): An IIJA program that reduces idling of GHG emissions at port facilities by studying emerging technologies and port electrification.

State Funding Sources

Trade Corridor Enhancement Program (TCEP): TCEP is an ongoing statewide competitive grant program leveraging federal funds of $515 million in National Highway Freight Program (NHFP) funds, matched with approximately $300 million in state funding disbursed annually to improve the safety, efficiency, and capacity of freight. Senate Bill 1 supersedes subsequent legislation (SB 103, Committee on Budget and Fiscal Review, 2017) and merged TCEP funds with existing federal National Highway Freight Program funding. Background information on the statutory language can be found in the California Streets and Highway Code Section 2192. TCEP projects employ various strategies, including expanding on-dock rail facilities, enhancing safety by eliminating at-grade crossings, minimizing community impacts, reducing border wait times, and increasing rail capacity through double tracking and the addition of rail sidings. TCEP funds are specifically allocated to federally designated Trade Corridors of National and Regional Significance within California's segment of the National Highway Freight Network. These corridors align with the priorities outlined in the California Freight Mobility Plan and encompass routes characterized by substantial freight traffic.

Local and Regional Project Assistance (Section 21202): Reauthorizes the RAISE grant program and doubles current funding levels to $7.5 billion for five years ($1.5 billion annually between FY 2022 - FY 2026) for eligible projects including highway and bridge projects, passenger or freight rail projects, port infrastructure projects, and surface transportation components of airport projects.

Port and Freight Infrastructure Program (PFIP): The Port and Freight Infrastructure Program is a comprehensive initiative aimed at improving and developing the infrastructure and facilities related to port operations and freight transportation. The program typically involves a combination of public and private investment to

address the growing demands of freight movement, enhance efficiency, and support economic growth.

Formula Grant Funding Programs
Federal Funding Sources
Congestion Mitigation & Air Quality Improvement Program (CMAQ): The program funds transportation improvement projects that will contribute to the attainment or maintenance of national ambient air quality standards (NAAQS). Eligible projects can be awarded to reduce ozone precursor emissions, including nitrogen oxides (NOx), volatile organic compounds (VOC), carbon monoxide (CO), and particulate matter (PM) emissions from transportation.

State Funding Sources
Interregional Transportation Improvement Program (ITIP): A statewide interregional grant funding program to improve interregional mobility for people and goods on highway and passenger rail corridors of strategic importance. These strategic corridors provide connectivity to neighboring states and the international border with Mexico.

Local Partnership Program (LPP): The Road Repair and Accountability Act of 2017 (SB 1) state program appropriates $200 million annually to local and regional transportation agencies that have sought and received voter approval of taxes or fees dedicated for transportation improvements.

State Transportation Improvement Program (STIP): A biennial five-year plan adopted by the Transportation Commission for allocating funds for highway improvement projects, intercity rail, regional highway and transit improvements. The approved projects for 2021 mid-cycle STIP were adopted on June 23 - 24, 2021.

State Planning and Research (Part I): Seventy-five percent of apportionment funds are dedicated to research activities relating to the studies of economy, safety, convenience of surface transportation systems and the desirable regulation and taxation of such systems.

State Planning and Research (Part II): Two percent of apportionments in the Federal and Highway Program are for planning and research activities. State must allocate a minimum of twenty-five percent for exploratory research, development, and technology.

Sustainable Transportation Planning Grants: A Caltrans-administered program to encourage local and regional planning that further state goals, including best practices cited in the Regional Transportation Plan Guidelines adopted by the Transportation Commission. SCCP provides $29.5 million in funding for Sustainable Communities Grants, $4.5 million in funding for Strategic Partnerships Grants, and $31.9 million in funding for Climate Adaptation Planning Grants. The FY 2024- 2025 grant applications are due January 18, 2024. The previous award lists can be found using the link.