SR-110 Bridge Replacement & Railing Upgrade Project

LOS ANGELES, CALIFORNIA
DISTRICT 7–LA–110(PM25.34/30.1)
EA/EFIS: 37130/0720000152 AND 36930/0719000373*

Initial Study with Proposed Negative Declaration/Environmental Assessment



Prepared by the
State of California, Department of Transportation

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated May 27, 2022, and executed by FHWA and Caltrans.

October 2024

* Project numbers will be combined at a later date, and a new project number is anticipated to be EA: 3713U.

General Information about This Document

What's in this document:
The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), has prepared this Initial Study /Environmental Assessment (IS/EA), which examines the potential environmental impacts of the alternatives being considered for the proposed project located in the cities of Los Angeles and South Pasadena. Caltrans is the lead agency under the National Environmental Policy Act (NEPA). Caltrans is the lead agency under the California Environmental Quality Act (CEQA). The document tells you why the project is being proposed, what alternatives have been considered for the project, how the existing environment could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- Please read this document.
- Electronic versions of the Draft IS/EA on digital media are available for review at the following locations:

1. Arroyo Seco Library (6145 N Figueroa Street, Los Angeles, CA 90042)
2. Los Angeles City Library Chinatown Neighborhood Branch (639 N. Hill St., Los Angeles, CA 90012)
3. South Pasadena Public Library (1100 Oxley St., South Pasadena, CA 91030)

   This document may be downloaded at the following website: https://dot.ca.gov/caltrans-near-me/district-7/district-7-programs/d7-environmental-docs

- Please send your comments to:

  Kelly Ewing-Toledo, Deputy District Director

  Division of Environmental Planning

  California Department of Transportation, District 7

  100 South Main Street, MS 16A

  Los Angeles, CA 90012

- Send comments via email to: SR110BridgeComments@dot.ca.gov
- Be sure to send comments by the deadline: 3/21/2025

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

Alternative Formats:
For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Sally Moawad 100 S. Main Street MS16A Los Angeles CA 90012; ((213) 269-1119 (Voice), or use the California Relay Service 1 (800) 735-2929 (TTY to Voice), 1 (800) 735-2922 (Voice to TTY), 1 (800) 855-3000 (Spanish TTY to Voice and Voice to TTY), 1-800-854-7784 (Spanish and English Speech-to-Speech) or 711.

SCH# 2023120015
07-LA-PM 25.34/30.1
EA/EFIS: 37130/072000152 & 36930/0719000373

The Project includes replacing N110-N5 Connector Sidehill Viaduct (Bridge No. 53-2225G), upgrading the bridge railing of Avenue 43 Ramp Bridge (Bridge #53-0985S) and Arroyo Seco Channel Bridge (Bridge #53-0276).

Initial Study with Proposed Negative Declaration/Environmental Assessment and Draft Section 4(f) Evaluation

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 USC 4332(2)(C)
49 USC 303, and/or 23 USC 138

THE STATE OF CALIFORNIA
Department of Transportation

Responsible Agencies: California Transportation Commission

Kelly Ewing-Toledo
Kelly Ewing-Toledo
Deputy District Director
District 7 Division of Environmental Planning
California Department of Transportation
CEQA/NEPA Lead Agency

11/01/2024
Date

The following persons may be contacted for more information about this document:

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SCH#: 2023120015

Proposed Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) is proposing improvements on SR-110 Postmiles (25.34/30.1) in the City of Los Angeles and South Pasadena within Los Angeles County. The project consists of 2 alternatives, one “No Build” Alternative and one “Build Alternative” that will replace N110-N5 Connector Sidehill Viaduct (Bridge No. 53-2225G) and upgrade the bridge railing of Avenue 43 Ramp Bridge (Bridge #53-0985S) and Arroyo Seco Channel Bridge (Bridge #53-0276).

The scope of work for the Alternative 2: Build Alternative is as follows:

N110-N5 Connector Sidehill Viaduct Postmile 25.34 (Bridge No. 53-2225G):

- Remove the existing viaduct and dead-end sidewalk remnant and replace with a retaining wall.
- Widen right shoulder from 2 feet to 10 feet.
- Remove the existing entire bridge structure and construct a retaining wall to support shoulder widening and concrete barrier railing Type 836.
- Upgrade three overhead sign structures and three overhead sign panels.
- Upgrade crash cushions and install channelizers at the gore area.
- Upgrade four highway safety lighting.
- Upgrade roadway signs along the connector.
- Install rumble strips at the edge of connector’s right shoulder.
- Upgrade/replace 65 feet MGS (Midwest Guardrail System) on N110 before the N110-N5 connector.

Ave 43 Offramp Postmile 27.08 (Bridge No. 53-0985S):

The existing bridge railings will be replaced with Concrete Barrier Type 68H (Mod)-Concrete Baluster post and beam see-thru barrier. Existing overhang will be removed and reconstructed to accommodate new overhang and bridge railing.

Arroyo Seco Channel Bridge Postmile 30.1 (Bridge No. 53-0276):

The existing bridge railings will be replaced with Concrete Barrier Type 85 (Mod)-Metal Baluster post and beam see-thru barrier. The existing 6’-2’’ sidewalk and curb railing will be removed, and a portion of the deck will be removed to accommodate the new concrete barrier on the replacement deck.

Right of way impacts are not anticipated, but a Temporary Construction Easement (TCE) to construct the retaining wall may be necessary.

DRAFT Determination

This proposed Negative Declaration (ND) is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt an ND for this project. This does not mean that Caltrans' decision regarding the project is final. This ND is subject to change based on comments received by interested agencies and the public.

Caltrans has prepared an Initial Study for this project and, pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons:

The proposed project would have no effect on the following resource areas: Coastal Zone, Wild and Scenic Rivers, Farmlands, Timberlands, Land Use, Wildfires, Relocations & Real Property Acquisition, Consistency with State, Regional, Local Plans/Programs, Parks and Recreational Facilities, Growth, Community Character & Cohesion, Environmental Justice, Equity, Hydrology & Floodplain, Water Quality and Storm Water Runoff, Invasive Species, Energy, and Senate Bill 743/Induced Demand.

In addition, the proposed project would have less than significant effects to Utilities and Emergency Services, Traffic and Transportation/ Pedestrian and Bicycle Facilities, Visual/Aesthetics, Cultural Resources, Geology, Soils, Seismicity and Topography, Paleontology, Hazardous Waste and Materials, Air Quality, Natural Communities, Wetlands and Other Waters, Plant Species, Animal Species, Threatened and Endangered Species, Noise and Vibration, and Climate Change.

Kelly Ewing-Toledo

11/01/2024

Kelly Ewing-Toledo
Deputy District Director
District 7 Division of Environmental Planning
California Department of Transportation

Date

Summary

S-1 NEPA ASSIGNMENT

California participated in the “Surface Transportation project Delivery Pilot Program” (Pilot Program) pursuant to 23 USC 327, for more than five years, beginning July 1, 2007, and ending September 30, 2012. MAP-21 (P.L. 112-141), signed by President Obama on July 6, 2012, amended 23 USC 327 to establish a permanent Surface Transportation Project Delivery Program. As a result, the Department entered into a Memorandum of Understanding pursuant to 23 USC 327 (NEPA Assignment MOU) with FHWA. The NEPA Assignment MOU became effective October 1, 2012, and was renewed on May 27, 2022, for a term of ten years. In summary, the Department continues to assume FHWA responsibilities under NEPA and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes. With NEPA Assignment, FHWA assigned, and the Department assumed all of the United States Department of Transportation (USDOT) Secretary's responsibilities under NEPA. This assignment includes projects on the State Highway System and Local Assistance projects off the State Highway System within the State of California, except for certain categorical exclusions that FHWA assigned to the Department under the 23 USC 326 CE Assignment MOU, projects excluded by definition, and specific project exclusions.

S-2 PROJECT OVERVIEW

Caltrans is proposing improvements on SR-110 Postmiles (25.34/30.1) in the City of Los Angeles and South Pasadena within Los Angeles County. The project consists of 2 alternatives, one “No Build” Alternative and one “Build Alternative” that will replace N110-N5 Connector Sidehill Viaduct (Bridge No. 53-2225G) and upgrade the bridge railing of Avenue 43 Ramp Bridge (Bridge #53-0985S) and Arroyo Seco Channel Bridge (Bridge #53-0276).

S-2.1 Lead Agencies and NEPA/CEQA Documentation

The proposed project is a joint project by the California Department of Transportation (Department) and the Federal Highway Administration (FHWA) and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). The Department is the lead agency under NEPA. The Department is the lead agency under CEQA. In addition, FHWA’s responsibility for environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 United States Code Section 327 (23 USC 327) and the Memorandum of Understanding dated May 27, 2022, and executed by FHWA and Caltrans.

Some impacts determined to be significant under CEQA may not lead to a determination of significance under NEPA. Because NEPA is concerned with the significance of the project as a whole, often a “lower level” document is prepared for NEPA. One of the most common joint document types is an Environmental Impact Report/Environmental Assessment (EIR/EA).

After receiving comments from the public and reviewing agencies, a Final IS/EA will be prepared. The Department may prepare additional environmental and/or engineering studies to address comments. The Final IS/EA will include responses to comments received on the Draft IS/EA and will identify the preferred alternative. If the decision is made to approve the project, a Notice of Determination will be published for compliance with CEQA, and the Department will decide whether to issue a Finding of No Significant Impact (FONSI) or require an Environmental Impact Statement (EIS) for compliance with NEPA. A Notice of Availability (NOA) of the FONSI will be sent to the affected units of federal, state, and local government, and to the State Clearinghouse in compliance with Executive Order 12372.

S-2.2 Project Area

Within the project limits, SR-110 is referred to as the Pasadena Freeway, also known as the Arroyo Seco Parkway, connects Los Angeles with Pasadena through a scenic, historic, arts and crafts themed byway. Opened to the motoring public in 1940, SR-110 was the first freeway to be built in the western United States. It was listed in the National Register of Historic Places in 2011and designated as a National Scenic Byway under the National Scenic Byways Program in 2002 and National Historic Civil Engineering Landmark in 1999 by the American Society of Civil Engineers (ASCE). The corridor still reflects the original design and character envisioned when the roadway was built in 1939.

S-2.3 Purpose and Need

The purpose of this project is to replace and upgrade the existing bridge on the N110-N5 connector Sidehill Viaduct (Bridge No. 53-2225G). Also, bridge rail upgrades are proposed on SR-110 at Avenue 43 Ramp Bridge and at Arroyo Seco Channel Bridge to meet with the current standards. Overall, the objective is to improve operations and safety, and upgrade assets to current standards.

Bridge inspections have been completed and the need for replacing the bridge railings of Avenue 43 Ramp Bridge (Bridge #53-0985S), Arroyo Seco Channel Bridge (Bridge #53- 0276), and bridge replacement of the N110-N5 connector Sidehill Viaduct (Bridge No. 53-2225G) are necessary. The project is needed to continue the district’s efforts to eliminate non-standard bridge rails on structures within the district to improve safety.

S-2.4 Proposed Action

Caltrans is proposing improvements on SR-110, Postmile 25.34 through 30.1, in the City of Los Angeles within Los Angeles County. The project consists of 2 alternatives, one “No Build” Alternative and one “Build Alternative” that will replace N110-N5 Connector Sidehill Viaduct (Bridge No. 53-2225G) and upgrade the bridge railing of Avenue 43 Ramp Bridge (Bridge #53-0985S) and Arroyo Seco Channel Bridge (Bridge#53-0276).

The scope of work for the Alternative 2: Build Alternative is as follows:

N110-N5 Connector Sidehill Viaduct Postmile 25.34 (Bridge No. 53-2225G):

- Remove the existing viaduct and dead-end sidewalk remnant and replace with a retaining wall (see Figure 3).
- Widen right shoulder from 2 feet to 10 feet.
- Remove the existing entire bridge structure and construct a retaining wall to support shoulder widening and concrete barrier railing Type 836.
- Upgrade three overhead sign structures and three overhead sign panels.
- Upgrade crash cushions and install channelizers at the gore area.
- Upgrade four highway safety lights.
- Upgrade roadway signs along the connector.
- Install rumble strips at the edge of connector’s right shoulder.
- Upgrade/replace 65-feet MGS (Midwest Guardrail System) on N110 before the N110-N5 connector.

Ave 43 Offramp Postmile 27.08 (Bridge No. 53-0985S):

The existing bridge railings will be replaced with Concrete Barrier Type 68H (Mod)-Concrete Baluster post and beam see-thru barrier. Existing overhang will be removed and reconstructed to accommodate new overhang and bridge railing.

Arroyo Seco Channel Bridge Postmile 30.1 (Bridge No. 53-0276):

The existing bridge railings will be replaced with Concrete Barrier Type 85 (Mod)-Metal Baluster post and beam see-thru barrier. The existing 6’-2’’ sidewalk and curb railing will be removed, and a portion of the deck will be removed to accommodate the new concrete barrier on the replacement deck.

Right of way impacts are not anticipated, but a Temporary Construction Easement (TCE) to construct the retaining wall may be necessary.

S-3 PROJECT IMPACTS

Table 1: Summary of Major Potential Impacts from Alternatives

Potential Impact	Alternative 1: No Build Alternative	Alternative 2: Build Alternative
Utilities and Emergency Services	No Impact	Less than Significant Impact/No adverse Effect with the implementation of avoidance and minimization measures. **ES-1 MIN:** Early coordination, including notification of lane closures and detours, will be conducted with local emergency service providers to minimize potential delays or disruptions. **UT-1 MIN:** If protection or relocation of utilities is required, early coordination and communication with utility service providers will be conducted to ensure that impacts from the disruption of services is minimized.
Traffic and Transportation/ Pedestrian and Bicycle Facilities	No Impact	Less than Significant Impact/No adverse Effect with the implementation of avoidance and minimization measures. **TR-1 MIN:** A Transportation Management Plan (TMP) will be prepared and implemented for the project during the construction phase of the project, which will include public information, motorist information, incident management, construction, demand management, and alternate routes or detours. **TR-2 MIN:** A Construction Staging Plan would be prepared and implemented during construction. **TR-3 MIN:** Prior to construction, coordination would be conducted with public transportation agencies to provide rerouting information, including operating schedules, to the public at least one month in advance of any service disruptions.

Potential Impact	Alternative 1: No Build Alternative	Alternative 2: Build Alternative
Visual/Aesthetics	No Impact	Less than Significant Impact/No adverse Effect with the implementation of avoidance and minimization measures. **VIS-MIN 1:** The design strategy is to retain the visual character of existing aesthetic features. The aesthetic treatment on the retaining wall and concrete barrier are to complement the color and pattern of other structures in the corridor. The existing concrete or metal baluster posts on the concrete barrier with see thru opening will be replaced with similar material and design. **VIS-MIN 2:** Avoid and/or minimize removal of existing vegetation. At the connector ramp, a few unhealthy trees on the slope between the retaining wall and flood control channel wall will be removed. Replacement trees are not proposed due to lack of safe access and limited space. No trees are anticipated to be removed at Ave 43 Bridge and Arroyo Seco Channel Bridge. **VIS-MIN 3:** Metallic surfaces, where feasible and applicable, are to be treated with oxidizing agent to appear aged and non-reflective. VIS-MIN 4: Apply erosion control to all disturbed slopes; seed species, if applicable, to be California native plants or native to the Arroyo Seco Watershed.
Cultural Resources	No Impact	Less than Significant Impact/No adverse Effect with the implementation of avoidance and minimization measures. **CUL MIN- 1:** Caltrans' standard specification to stop work in the event that artifacts or other cultural materials are encountered will apply, i.e., should buried cultural materials be encountered during construction, it is Caltrans policy that work in that area must stop until a qualified archaeologist can evaluate the nature and significance of the find. Should project plans change to include unsurveyed areas, additional archaeological studies will be required.

Potential Impact	Alternative 1: No Build Alternative	Alternative 2: Build Alternative
Geology, Soils, Seismicity and Topography	No Impact	Less than Significant Impact/No adverse Effect with the implementation of avoidance and minimization measures. **GT MIN-1:** A zone of required investigation (ZORI) for landslide hazard mapped by the California Geological Survey (CGS) slope stability issues must be accounted for during construction. **GT MIN-2:** A slope stability analysis will have to be performed for temporary conditions during the construction of the northbound connector retaining wall.

Paleontology	No Impact	Less than Significant Impact/No adverse Effect with the implementation of avoidance and minimization measures. **PALEO MIN-1:** A Qualified Paleontologist/Paleontological Monitor must monitor the project site as described in Table 8. This individual will be responsible for the collection and salvage of fossil materials. A Caltrans Paleontological Coordinator shall review resumes and qualifications prior to construction. **PALEO MIN-2:** Worker Training and On-call Paleontological Monitoring Prior to any ground disturbances for the project, a Qualified Paleontologist would inform the worker crew about the geologic formations that may be encountered during excavations, including the types of material associated with each of those formations (i.e., fill, clay, sand, etc.). The Qualified Paleontologist would document the training in a worker training log. An example worker training log is provided in Appendix 3 of the Paleontological Evaluation Report and Paleontological Mitigation Report (August 2024). **PALEO MIN-3:** If significant fossils are discovered during excavations, the trained work crew would immediately notify the Resident Engineer, who has the authority to stop all work in the immediate vicinity of the discovery/excavation per SSP-14-7.03. The Resident Engineer would immediately notify an on-call Paleontological Monitor, who would evaluate the discovery and consult with the Qualified Paleontologist, Caltrans, museum repositories, and local experts, as applicable, to determine if salvage, recovery, and curation is required per SSP 14-7.04. For significant paleontological resources, a recovery program would be initiated that would follow the general steps outlined herein, with refinements as needed based on the type and nature of the discovery. **PALEO MIN-4:** All project-related excavations, including the depth, may become available and Caltrans shall provide these data as soon as possible. Most excavations are anticipated to encounter Puente Formation for the removal, constructing the new proposed earth retaining system and widening. Therefore, paleontological monitoring is required as described in Table 8.

		PALEO MIN-5: Salvage and recovery operations as well as Laboratory efforts guidance is described in the Paleontological Evaluation Report and Paleontological Mitigation Report (August 2024), which is available upon request. **PALEO MIN-6:** Donation to Repository or Museum Specimens shall be cataloged, and a complete list shall be prepared of specimens introduced into the collections or a repository by the curator of the museum or university. Adequate storage includes curation of individual specimens into the collection of a recognized, nonprofit paleontological specimen repository with a permanent curator, such as at the museum repository. A complete set of field notes, geologic maps, and stratigraphic sections must accompany the fossil collections. An example letter donating salvaged paleontological resources to an institution is provided in Appendix 4 of the Paleontological Evaluation Report and Paleontological Mitigation Report (August 2024). **PALEO MIN-7:** Preparation of Paleontological Mitigation Report A final Paleontological Mitigation Report (PMR) shall be prepared by the project Paleontologist documenting implementation of the approved PMP. The report would adhere to Caltrans SER guidelines and would include, at a minimum, discussions of project impacts, regulatory requirements, purpose of mitigation, regional geologic context, project stratigraphy, stratigraphic and geographic distribution of paleontological resources, field and laboratory methods and procedures, fossil recovery, and paleontological significance. The report would also include geological cross sections and stratigraphic sections depicting fossil discovery localities and excavated rock units; maps showing the project location and vicinity, as well as project geology and location of discovered fossil localities; appropriate photographs or illustrations depicting monitoring conditions, field context of collecting localities, quarry maps, and laboratory activities; and appendices including an itemized listing of catalogued fossil specimens, complete descriptions of all fossil collecting localities, an explanation of report acronyms and terms, and a signed curation agreement with an approved paleontological repository.

Hazardous Waste and Materials	No Impact	Less than Significant Impact/No adverse Effect with the implementation of avoidance and minimization measures. **HAZ MIN-1:** A site investigation (SI) will be required for this project during PS&E to determine the actual concentration of lead to prepare the special provisions for handling and disposal of the contaminated soils. For estimating purposes, please consider the top 3.5 feet of excavated soil in the unpaved areas within 30 feet from the edge of traveled way to be contaminated with ADL requiring disposal to a Class I facility as Type Z-3 soil. **HAZ MIN-2:** The contractor is required to prepare a project specific Lead Compliance Plan (LCP) to protect workers from the hazards of lead during disturbance and/or excavation of ADL impacted soil. **HAZ MIN-3:** For areas with hazardous waste concentrations of lead, the soil can be reused in the immediate area of disturbance and must not be transported elsewhere. **HAZ MIN-4:** A lead compliance plan (LCP) will be required to protect workers from the hazard from lead. **HAZ MIN-5:** Notification to the South Coast Air Quality Management District (SCAQMD) is required prior to renovation or demolition of a structure regardless of whether asbestos is detected or not. If the ACM survey identifies asbestos, the appropriate special provision (SSP/NSSP 14-11.16) will be provided for the PS&E package. **HAZ MIN-6:** The LBP survey must be performed by a Licensed Lead Inspector/Supervisor. Funds for removal and disposal of LBP need to be included in project cost estimate if LBP is detected. **HAZ MIN-7:** Prior to starting construction, the contractor shall inspect the existing electrical equipment and components to determine if they contain any hazardous materials. The handling and disposal of electrical waste is governed by the latest Caltrans Standard Specifications section 14-11.15, Disposal of Electrical Equipment

Potential Impact	Alternative 1: No Build Alternative	Alternative 2: Build Alternative
		Requiring Special Handling. All electrical parts containing hazardous material shall be packaged and transported to an appropriate hazardous waste disposal facility. **HAZ MIN-8:** If traffic stripe will be removed from pavement prior to demolition, SSP(s) for the removal, management, and disposal will be prepared for the PS&E package. **HAZ MIN-9:** The appropriate SSP for lead, chromium in yellow thermoplastic, and painted striping will be provided to address the hazards to workers and management of residue for the PS&E package. **HAZ MIN-10:** If traffic stripe is removed from pavement prior to demolition, the Contractor is required to prepare a Lead Compliance Plan (LCP) to address protection of workers from exposure to the hazards from lead. The LCP shall be prepared by a certified industrial hygienist (CIH) and submitted to Caltrans for review and acceptance. **HAZ MIN-11:** If the project requires imported borrow, the contractor is responsible to perform analytical tests to ensure that imported borrow is free of contamination per SSP 6-1.03B, Imported Borrow. **HAZ MIN-12:** Any change in the scope of work will require a Hazardous Waste Re-Assessment.

Potential Impact	Alternative 1: No Build Alternative	Alternative 2: Build Alternative
Natural Communities	No Impact	Less than Significant Impact/No adverse Effect with the implementation of avoidance and minimization measures. **BIO-1 MIN:** This Division of Environmental Planning will be provided with the plans and project Specifications & Expenditures (PS&E) Package for review and comments. **BIO-2 MIN:** The project Biologist must be invited to the pre-construction meeting, with one-week prior notice. **BIO-3 MIN:** If the project scope should change for any reason, the Division of Environmental Planning will be notified immediately to determine whether current environmental documentation is adequate. **BIO-18 MIN:** The Department will also apply dust control measures to minimize the amount of dust in the air and make air quality in the area suitable for workers and the adjacent residences and wildlife.

Potential Impact	Alternative 1: No Build Alternative	Alternative 2: Build Alternative
Wetlands and Other Waters	No Impact	Less than Significant Impact/No adverse Effect with the implementation of avoidance and minimization measures. **BIO-5 MIN:** If access to the Los Angeles River or Arroyo Seco Channels is necessary, it is highly recommended that any work conducted below the bridge deck should be done by lowering a suspended utility boom bucket from a truck on the top of the bridge, with cherry pickers, or other methods that do not require access or impacts to the two concrete channels. **BIO-6 MIN:** This project must employ all appropriate Stormwater and Erosion Control Best Management Practices (BMPs), and these must be incorporated into the project specifications. Prior to the start of construction all drain inlets and outlets must be protected with BMPs to prevent construction materials and debris from entering drainages. **BIO-7 MIN:** Work shall cease when the chance of rain is more than 30% and is forecasted for the future 72 hours. **BIO-8 MIN:** All pollution and litter laws and regulations will be followed by the Contractor and all personnel on site.
Plant Species	No Impact	Less than Significant Impact/No adverse Effect with the implementation of avoidance and minimization measures. **BIO-9 MIN:** The contractor shall not introduce any invasive species during construction. Methods of invasive control include washing equipment regularly, monitoring the site for invasive species, and removal of invasive species by qualified personnel when they occur.

Animal Species	No Impact	Less than Significant Impact/No adverse Effect with the implementation of avoidance and minimization measures. **BIO-10 MIN:** There will be no vegetation removal with this project. If it is determined that vegetation must be removed, the Caltrans District Biologist will be notified two weeks prior to removal of vegetation or commencement of construction to determine if birds are nesting. Bird nesting season is normally February 1st through September 1st; however, bird nesting behavior has begun earlier than expected due to current weather patterns. In the event that nesting birds are observed, the Caltrans District Biologist should be contacted, and the contractor should not conduct removal of nests until it is determined that the fledglings have left the nest. If this is not possible, coordination with the District Biologist should take place in order to minimize the risk of violating the Migratory Bird Treaty Act, and the following minimization measure put in place: a buffer of 150 ft. for songbirds and 500 ft. for raptors which must be maintained during all phases of construction during the nesting bird season. Nesting birds may not be impacted by any construction activity including noise and dust pollution along with destruction of habitat. **BIO-11 MIN:** If vegetation removal or construction should occur during the bird nesting season, surveys will be conducted to determine presence of nesting birds, and appropriate minimization measures will be implemented to comply with the Migratory Bird Treaty Act, since adherence to the Migratory Bird Treaty Act is another regulatory requirement. **BIO-12 MIN:** Caltrans District Biologist must be notified two weeks prior to construction so that preconstruction surveys may be conducted, and exclusionary devices and methods may be discussed, per the following standard specification: 14-6.03 Bird Protection. **BIO-13 MIN:** Caltrans anticipates day or night roosting and breeding from March 1 to October 31. Caltrans must protect bats from disturbance caused by work within the project. Bats roost inside bridges and on trees year-round but are most active between March and October. If bats are found where there will be activity, do not start work in

		that area until bat species have been identified and approved bat exclusionary and roosting preventive measures are in place. A Caltrans District Biologist will conduct a survey before construction to determine the presence or absence of regulated bat species. Surveys will include monitoring bat activity, identifying types of bats present, determining appropriate buffers, and determining requirements for bat exclusionary and roosting preventive measures. Surveys may include nighttime surveys, entering bridge box girders or being lifted with equipment to check for bats in bridge joints and crevices. **BIO-14 MIN:** If bats are discovered at the project site, do not use construction and lighting equipment until approved bat exclusionary and roosting preventive measures are in place. If ordered, use bat exclusionary and roosting preventive measures such as bat houses, weep-hole covers, and netting or fabric on a regular basis to prevent their occupation, or perform any combination of these. **BIO-15 MIN:** It is also highly recommended that that work be conducted outside of the roosting bat season (October 31 to March 1) for the LA-110 Bridge (Bridge Number 53-2225G) over the Los Angeles River and the LA-110 Bridge (Bridge Number 53-0276) over the Arroyo Seco Channel. Hence, it is recommended that work on these two bridges should be confined to October 31 to February 1, while work on the Avenue 43 Bridge (Bridge Number 53-0985S) should avoid the nesting bird season (from September 1 to February 1). If this is not feasible, exclusionary devices for bats and birds may be necessary. **BIO-16 MIN:** Construction should be limited to the period outside of the bird nesting season, which is from September 1 to February 1. If work is conducted during the nesting bird season, from February 1 to September 1, nesting bird surveys by a qualified biologist must be conducted a minimum of 3 days before commencement of work. For songbirds and raptors, if there are active nests, a buffer zone of 150 feet or 500 feet, respectively, must be established with no work in the buffer zone until the fledglings can flee the project area.

Potential Impact	Alternative 1: No Build Alternative	Alternative 2: Build Alternative
		BIO-17 AV: If work will be conducted during nesting bird season (from February 1 to September 1) and/or conducted during roosting bat season (March 1 to October 31) for the LA-110 Bridge (Bridge Number 53-2225G) over the Los Angeles River and the LA-110 Bridge (Bridge Number 53-0276) over the Arroyo Seco Channel, exclusionary devices will be necessary. Hence, it is recommended that work on these two bridges should be confined to October 31 to February 1, while work on the Avenue 43 Bridge (Bridge Number 53-0985S) should avoid the nesting bird season (from February 1 to September 1). If this is not feasible, exclusionary devices for bats and birds may be necessary.
Threatened and Endangered Species	No Impact	Less than Significant Impact/No adverse Effect with the implementation of avoidance and minimization measures. **BIO-4 MIN**: If any species of concern are observed during construction activities, all work shall immediately cease, and the Caltrans District Biologist shall be immediately notified. Work shall not resume until clearance is given by the District Biologist.

Climate Change	No Impact	Less than Significant Impact/No adverse Effect with the implementation of avoidance and minimization measures. **GHG-1 MIN:** It is recommended that the PDT review, evaluate, and consider project measures in Tables 1 and 3 of the Toolbox GHG reduction measures Toolbox (ca.gov) and that the projects commit to include all feasible and relevant measures identified from the Tables. If any measures are proposed outside the Tables in the Toolbox, the PDT shall ensure that those measures are biddable, buildable, and can be successfully implemented. All identified reduction measures shall be carried forward in the ECR. **GHG-2 MIN:** Limit idling to 5 minutes for delivery and dump trucks and other diesel-powered equipment. **GHG-3 MIN:** Schedule truck trips outside of peak morning and evening commute hours. **GHG-4 MIN:** For improved fuel efficiency from construction equipment: • Maintain equipment in proper tune and working condition • Use right sized equipment for the job • Use equipment with new technologies **GHG-5 MIN:** Use alternative fuels such as renewable diesel for construction equipment whenever possible. **GHG-6 MIN:** Salvage rebar from demolished concrete and process waste to create usable fill. **GHG-7 MIN:** Maximize use of recycled materials (tire rubber for example). **GHG-8 MIN:** Reduce construction waste. For example, reuse or recycle construction and demolition waste (reduces consumption of raw materials, reducing waste and transportation to landfill; saves costs). **GHG-9 MIN:** Use recycled water or reduce consumption of potable water for construction.

Potential Impact	Alternative 1: No Build Alternative	Alternative 2: Build Alternative
		GHG-10 MIN: All construction contracts include Caltrans Standard Specifications related to air quality. Section 7-1.02A and 7 1.02C, Emissions Reduction, requires contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all ARB emission reduction regulations. Section 14-9.02, Air Pollution Control, requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions.
Noise	No Impact	Less than Significant Impact/No adverse Effect with the implementation of avoidance and minimization measures. **NS-1 MIN:** Section 14-8.02, Sound Control Requirements, of Caltrans standard specifications states that overnight construction noise levels should not exceed sustained 86 dBA at 50 feet from the job site activities. These requirements also state that noise levels generated during construction shall comply with applicable local, state, and federal regulations. Incorporating the standard sound control requirements into the project would address temporary construction noise-related potential impacts.
Air Quality	No Impact	Less than Significant Impact/No adverse Effect with the implementation of avoidance and minimization measures. **AQ-1 MIN:** Objectionable odors should also be minimized by conducting certain construction activities in areas at least 500 feet from the sensitive receptors as feasible. A part of review of design plans and specifications, the AQB will also coordinate for approval of a nonstandard special provision (NSSP) 14-9.05 to mandate contractors' compliance with the applicable air district rules including measures related to dust control.

S-4 COORDINATION WITH PUBLIC AND OTHER AGENCIES

The Notice of Preparation (NOP) for scoping was approved on December 1, 2023, with a 45-day public comment period, which ended on January 16, 2024. The following Consulting Parties were provided with a letter via e-mail on April 22, 2024, and a follow up email on May 13, 2024:

- State Historic Preservation Officer
- Los Angeles Office of Historic Resources
- City of South Pasadena, Community Development Department, Planning Division
- Los Angeles Conservancy
- South Pasadena Preservation Foundation
- Highland Park Heritage Trust

Native American Consultation Contacts:

- Andrew Salas – Gabrieleño Band of Mission Indians – Kizh Nation
- Sam Dunlap – Gabrielino Tongva Tribe
- John Cody Blunt – Tribal Council Member – Gabrielino/Tongva Nation

For additional details, please see Chapter 4.

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Chapter 1 Proposed Project

1.1 INTRODUCTION

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), is the lead agency under the National Environmental Policy Act (NEPA). Caltrans is the lead agency under the California Environmental Quality Act (CEQA).

The proposed project is fully funded by the State Highway Operation and Protection Program (SHOPP) Roadway Preservation Program under 201.2XX as Roadway and Roadside Preservation Programs. The project is also identified in the latest conforming Federal Transportation Improvement Program (2023 FTIP) in a lumpsum category of LALS04 for Bridge Rehabilitation and Reconstruction; and is deemed listed in 40 CFR 93.126 Table 2 under the subtitle “Safety” and classifications “Widening narrow pavements or reconstructing bridges (no additional travel lanes).” The project is also consistent with the Regional Transportation Plan (RTP). See Appendix C.

Within the project limits, SR-110 is referred to as the Pasadena Freeway, also known as the Arroyo Seco Parkway, connects Los Angeles with Pasadena through a scenic, historic, arts and crafts themed byway. Opened to the motoring public in 1940, SR-110 was the first freeway to be built in the western United States. It was listed in the National Register of Historic Places in 2011and designated as a National Scenic Byway under the National Scenic Byways Program in 2002 and National Historic Civil Engineering Landmark in 1999 by the American Society of Civil Engineers (ASCE). The corridor still reflects the original design and character envisioned when the roadway was built in 1939.

Avenue 43 ramp bridge (Bridge Number 53-0985S) is a single span (60’-2” Long) reinforced concrete “T” girders with closed end cantilever abutments, all supported on spread footings. Bridge total width (edge to edge) is approximately 29 feet consisting of 2’-6” bridge rail/curb and one 12 ft. lane in each direction. It was constructed in 1940 with Concrete Baluster.

Arroyo Seco Channel Bridge (Bridge Number 53-0276) is continuous 3 span (432’ long) reinforced concrete box girder and reinforced concrete “T” girder approaches with closed end cellular bin abutments and piers, all supported on spread footings. Bridge total width (edge to edge) is approximately 88’-4” consisting of 6’-2” bridge rail/curb and 38’ (3 – 11’ lanes, & 2’ rt. & lt. shoulders) in each direction with median concrete barrier. It was constructed in 1939 with Steel Baluster.

Project Initiation Proposal (PIP) with SHOPP ID Tool #18175, was initiated by Caltrans Division of Maintenance, to address the need to upgrade the functionally obsolete bridge rails based on Bridge Inspection Record Information System (BIRIS) recommendations.

The N110-N5 Connector Sidehill Viaduct was built in 1931 by the City of Los Angeles and it was later transferred its ownership to the State Highway System in 1943. The structure is about 600 feet in length and has continuous 21 span T-beams with reinforced concrete pier walls, all supported on the spread footings. The structure is situated on the slope that is west and parallel along the south side of the Los Angeles River Channel. The current bridge configuration for travel way consists of two 10-foot-wide lanes with two feet wide shoulder on each side, and a 6 feet wide raised sidewalk. Per the latest State Bridge Inspection Report (BIR) dated November 6, 2018, this bridge structure was designed to support only the combined loading of the shoulder, sidewalk, and bridge railing.

Currently, the sidewalk is not in use, and it is blocked off for pedestrian access since it is no longer needed for serving the pedestrian traffic purposes. The BIR recommended that the bridge railing be upgraded to meet the current standard. Hence, the project proposes to replace the bridge railing, remove the existing PCC sidewalk, and widen to provide the right shoulder width to 10 feet. To accommodate the right paved shoulder widening, the entire bridge structure would have to be removed and that the retaining wall structure will be constructed to both support the widening and the new bridge railing. The proposed layout line for the rail replacement will follow the current structure alignment. There will be no change in the proposed structure profile.

In addition, the project will also seek to improve operations and enhance the overall safety at this SR- 110/I-5 junction by proposing to upgrade the overhead sign structures and overhead sign panels, upgrade the crash cushion at the gore area, upgrade highway safety lighting and roadway signs along the connector right side to meet standards.

Figure 1: Regional Location Map

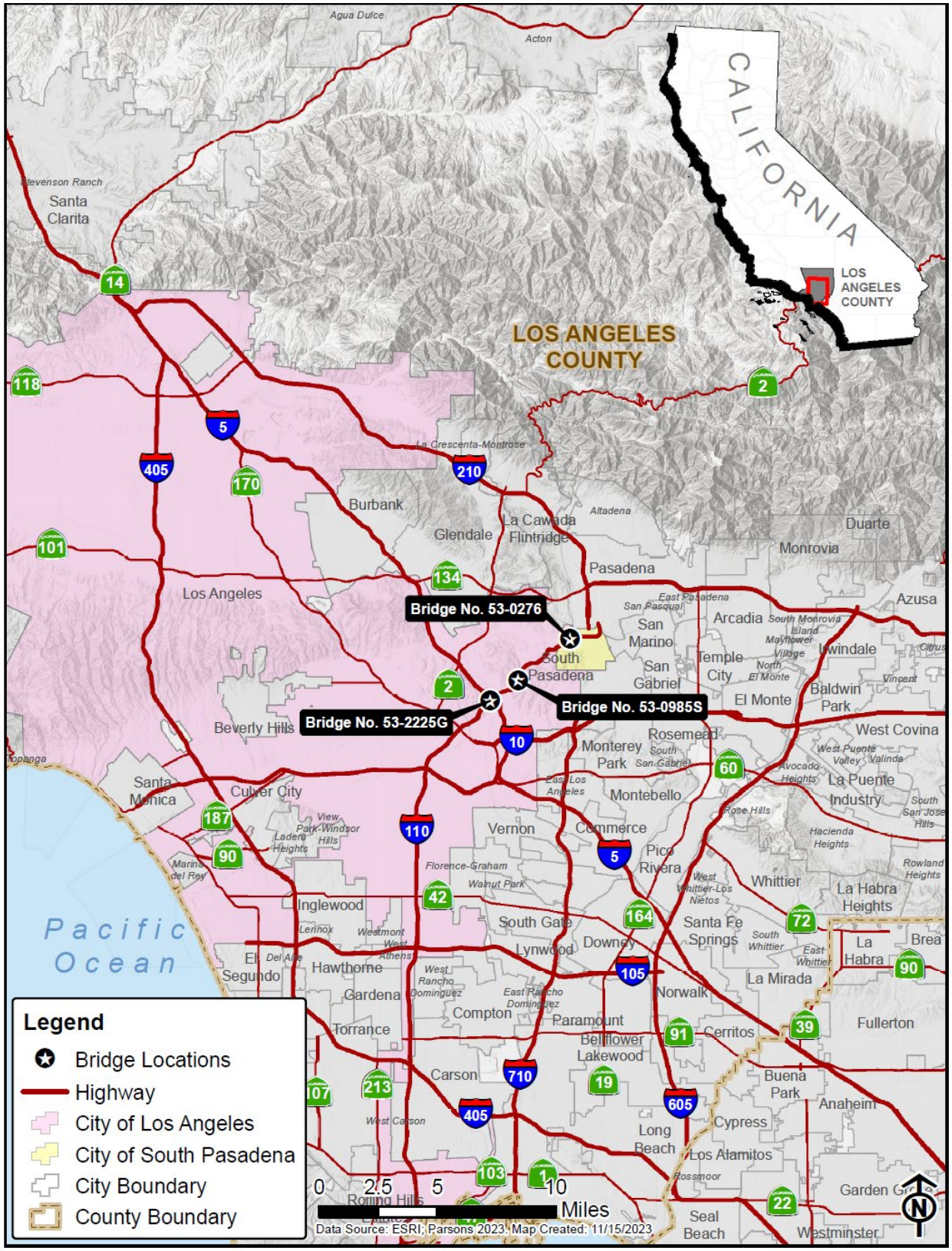


Figure 2: Project Location Map



1.2 PURPOSE AND NEED

1.2.1 Purpose

The purpose of this project is to replace and upgrade the existing bridge on the N110-N5 connector Sidehill Viaduct (Bridge No. 53-2225G). Also, bridge rail upgrades are proposed on SR-110 at Avenue 43 Ramp Bridge and at Arroyo Seco Channel Bridge to meet with the current standards. Overall, the objective is to improve operations and safety, and upgrade assets to current standards.

1.2.2 Need

Bridge inspections have been completed and the need for replacing the bridge railings of Avenue 43 Ramp Bridge (Bridge #53-0985S), Arroyo Seco Channel Bridge (Bridge #53- 0276), and bridge replacement of the N110-N5 connector Sidehill Viaduct (Bridge No. 53-2225G) are necessary. The project is needed to continue the district's efforts to eliminate non-standard bridge rails on structures within the district to improve safety.

In addition to the bridge inspections, below are types of collisions that have been noted within the project area:

SR-110 (PM 25.488) N110-N5 Connector Sidehill Viaduct Bridge: The Traffic Accident Surveillance and Analysis System/Accident Summary report from October 01, 2020, to December 30, 2023, indicated that there was a total of 70 accidents on the NB110-NB5 connector. The primary collision factors identified were influence of alcohol, improper turn, speeding, and other violations. There were 0 Fatal, 19 Injury, and 51 Property Damage Only. The major types of collision were 29 Hit Object, 22 Sideswipe, and 17 Rear End. The three-year period data from October 01, 2020, to December 30, 2023, indicates that the actual fatal & injury and total collision rates on the N110-N5 connector were significantly higher than the average collision rate.

SR – 110 (PM 29.80 TO PM 30.399) Arroyo Seco Channel: The Traffic Accident Surveillance and Analysis System/Transportation System Network history indicates a total 72 collisions in a three-year period. There were 29 injuries and 43 Property Damages Only. The primary collision factors identified were improper turn, speeding, and other violations. The major types of the collisions were 32 Hit Object, 14 Rear End, and 20 Sideswipe. The three-year period data from January 1, 2021, to December 31, 2023, indicates that the actual fatal & injury and total collision rates within the limits were higher than the average collision rate.

NB-110 OFF RAMP TO AVENUE 43 (PM 27.063): The Traffic Accident Surveillance and Analysis System/Transportation System Network history indicates a total 36 collisions in a three-year period. There were 18 injuries and 18 property damages only (PDO). The primary collision factors identified were speeding, improper turn, and influence of alcohol. The major types of the collisions were 29 hit object and 4 broadside. The three-year period data from January 1, 2021, to December 1, 2023, indicates that the actual fatal & injury and total accident rates within the project limits were higher than the average collision.

NB-110 ON RAMP FROM AVENUE 43: The Traffic Accident Surveillance and Analysis System/Transportation System Network history indicates a total 14 collisions in a three-year period. There were 3 injuries and 11 property damages only (PDO). The primary collision factors identified were speeding, and improper turn. The types of the collisions were 5 rear end and 8 hit object. The three-year period data from January 1, 2021, to December 1, 2023, indicates that the accident rate within the project limits were higher than the average collision.

1.2.3 Independent Utility and Logical Termini

Independent utility is a term used to describe a project that would be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made. Once built, the Project could stand on its own and requires no other projects to be implemented.

A logical terminus describes logical beginning and end points for an improvement Project, including the beginning and end points of its impacts. In the case of this, the proposed action will enhance safety and operations along the Parkway. The improvements would address existing traffic conflicts by allowing vehicles more efficient ingress and egress from the on- and off-ramps along the Parkway. The need of the project is because the parkway was built in 1940, the design of the Parkway predates current highway standards. High rates of accidents are attributed to the geometric constraints of the Parkway with on/off ramp locations that do not provide adequate acceleration/deceleration distance for merging and exiting vehicles, especially, during off-peak commute hours when speeds are highest. A traffic analysis shows the study segment experiences accident rates that are twice as high as comparable State facilities.

The project would not require future construction to use the project's design capabilities fully and meet the purpose and need. The proposed Project has been designed 1) to connect logical termini, 2) to have independent utility or independent significance, and 3) not to restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

Therefore, based on the above and pursuant to 23 CFR 771.111(f), this project has independent utility and logical termini.

1.3 PROJECT DESCRIPTION

This section describes the proposed action and the project alternatives developed to meet the purpose and need of the project, while avoiding or minimizing environmental impacts. The alternatives are Alternative 1: No-Build (No-Action) Alternative and Alternative 2: Build Alternative. Caltrans is proposing improvements on SR-110 Postmiles (25.34/30.1) in the City of Los Angeles and South Pasadena within Los Angeles County. Alternative 2 will replace N110-N5 Connector Sidehill Viaduct (Bridge No. 53-2225G) and upgrade the bridge railing of Avenue 43 Ramp Bridge (Bridge #53-0985S) and Arroyo Seco Channel Bridge (Bridge #53-0276).

1.4 PROJECT ALTERNATIVES

This project contains several standardized project measures which are employed on most, if not all, Caltrans Projects and were not developed in response to any specific environmental impact resulting from the proposed project. These measures are addressed in more detail in the Environmental Consequences sections found in Chapter 2.

1.4.1 Alternative 1: No-Build (No-Action) Alternative

The No Build Alternative would maintain the existing facility in its present condition and without any improvements. No change in environmental conditions would occur under this alternative as the project would not take place. No construction costs are associated with this alternative and there are no impacts to rights-of-way, utilities, or traffic. The No Build Alternative would not meet the Purpose and Need. In addition, this alternative is inconsistent with Caltrans' mission, vision, and goals.

1.4.2 Alternative 2: Build Alternative

N110-N5 Connector Sidehill Viaduct Postmile 25.34 (Bridge No. 53-2225G):

- Remove the existing viaduct and dead-end sidewalk remnant and replace with a retaining wall (see Figure 3 through Figure 5).
- Widen right shoulder from 2 feet to 10 feet.
- Remove the existing entire bridge structure and construct a retaining wall to support shoulder widening and concrete barrier railing Type 836.
- Upgrade three overhead sign structures and three overhead sign panels.
- Upgrade crash cushions and install channelizers at the gore area.
- Upgrade four highway safety lighting.
- Upgrade roadway signs along the connector.
- Install rumble strips at the edge of connector's right shoulder.
- Upgrade/replace 65 feet MGS (Midwest Guardrail System) on N110 before the N110-N5 connector.

Figure 3: Dead-End Sidewalk on Sidehill Viaduct (Br No. 53-2225G)



Photo by: Jason Roach

Figure 4: Proposed Sidehill Viaduct Retaining Wall



Figure 5: Proposed Sidehill Viaduct View from Riverside Drive



Ave 43 Offramp Postmile 27.08 (Bridge No. 53-0985S):

The existing bridge railings will be replaced with Concrete Barrier Type 68H (Mod)-Concrete Baluster post and beam see-thru barrier. Existing overhang will be removed and reconstructed to accommodate new overhang and bridge railing.

Arroyo Seco Channel Bridge Postmile 30.1 (Bridge No. 53-0276):

The existing bridge railings will be replaced with Concrete Barrier Type 85 (Mod)-Metal Baluster post and beam see-thru barrier. The existing 6'-2'' sidewalk and curb railing will be removed, and a portion of the deck will be removed to accommodate the new concrete barrier on the replacement deck.

Right of way impacts are not anticipated, but a Temporary Construction Easement (TCE) to construct the retaining wall on N110-N5 Connector Sidehill Viaduct (Bridge No. 53-2225G) may be necessary. APN #: 5415-003-900.

1.5 PERMITS AND APPROVALS NEEDED

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

Table 2: Permits and Approvals

Agency	PLAC	Status
State Historic Preservation Officer	Concurrence	September 3, 2024
California Transportation Commission	CTC vote to approve funds.	Following the approval of the FED, the California Transportation Commission will be required to vote to approve funding for the project.
Army corps and LA County	Encroachment Permit	If work within Los Angeles County flood control District (LACFCD) right of way is required, then an encroachment permit will be necessary. A determination regarding permits will be made at the PS&E phase when more information on impacts will be available.
Army Corps of Engineers (USACE)	Section 404 Nationwide Permit	If there is the possibility of construction impacting the channels below the Ordinary High-Water Mark (OHWM), and the channels flow ultimately to the Pacific Ocean (a 408 Permissions Permit must be obtained by Design before the 404 Permit is obtained). A determination regarding permits will be made at the PS&E phase when more information on impacts will be available.

Agency	PLAC	Status
Regional Water Quality Control Board (RWQCB)	Section 401 Water Quality Certification	If discharges to channels is anticipated, then the Section 401 Water Certification will be required. A determination regarding permits will be made at the PS&E phase when more information on impacts will be available.
California Department of Fish and Wildlife (CDFW)	Section 1602 Streambed Alteration Agreement (SSA)	If impacts below the top of the bank of the channels is anticipated, then a SSA will be required. A determination regarding permits will be made at the PS&E phase when more information on impacts will be available.

Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

2.1 TOPICS CONSIDERED BUT DETERMINED NOT TO BE RELEVANT

As part of the scoping and environmental analysis carried out for the project, the following environmental issues listed in Table 3 were considered but no adverse impacts were identified. As a result, there is no further discussion about these issues in this document.

Table 3: Resource Topics Dismissed from Analysis

Resource	Rationale for Dismissal
Coastal Zone	According to the California Coastal Commission, the coastal zone typically extends inland 1,000 yards (and up to five miles in abundant coastal estuarine, habitat, or recreational areas) from the median high-tide line (California Coastal Commission, 2019). The project Footprint is approximately 15 miles east of the Pacific coast, and not in the coastal zone.
Wild and Scenic Rivers	There are no Wild and Scenic Rivers in proximity to the project Footprint. The nearest Wild and Scenic River is Deep Creek located approximately 60 miles northeast of the project footprint (National Wild and Scenic Rivers System, 2020).
Farmlands/Timberlands	The project footprint is in a heavily developed urban area surrounded by industrial and commercial properties, and does not include agricultural land, forest land, or timberland.
Land Use	The project would not result in any changes to land use.
Wildfires	The project is not located within or near high fire hazards severity zones.
Relocations and Real Property Acquisition	No residential or business relocations would be required by the project. Right of way acquisitions are not anticipated, but a Temporary Construction Easement (TCE) to construct the retaining wall on N110-N5 Connector Sidehill Viaduct (Bridge No. 53-2225G) may be necessary. APN #: 5415-003-900.
Consistency with State, Regional, and Local Plans and Programs	According to the FHWA Community Impact Assessment Checklist (September 2023), the proposed project is consistent with relevant state, regional, and local plans, and programs.
Parks and Recreational Facilities	According to the FHWA Community Impact Assessment Checklist (September 2023), the project would not impact parks or other recreation facilities. Work will be within State Right of Way except for a potential temporary construction easement (TEC) to construct the retaining wall on N110-N5 Connector Sidehill Viaduct (Bridge No. 53-2225G). APN #: 5415-003-900.
Growth	According to the FHWA Community Impact Assessment Checklist (September 2023), growth patterns would not change because of the proposed project. Development opportunities would not be influenced by the project. The housing supply would not be impacted the proposed project.

Resource	Rationale for Dismissal
Community Character and Cohesion	According to the FHWA Community Impact Assessment Checklist (September 2023), health, safety, or crime would not become worse because of the proposed project. Public service delivery, such as fire, ambulance, police, or education would not be disrupted by this project the footprint of this project is minimal and most of the work will be done within State Right-of-Way except for a potential TEC mentioned above. A TMP will also be in place prior to Construction. Community character (including aesthetics, lighting, and noise) would not be noticeably changed. Property values and/or the quality of life would not deteriorate. Businesses would not be removed. Parking impacts are not anticipated. Permanent changes in traffic patterns or visibility are not anticipated. Traffic patterns may change during the construction period, but minimization measures will be in place to ensure businesses are not impacted. During the Construction period potential construction related job opportunities would increase because of the project. The tax base would not be altered due to relocations and/or conversion of property to state use. The sidewalk on the Sidehill Viaduct (Br No. 53-2225G) will be removed as part of this project, the sidewalk terminates approximately 675 feet northwesterly from the spiral staircase at the remnants of the abutment of a former historic bridge. That bridge was the Riverside Figueroa Bridge (Br No. 53C-0160) which was demolished sometime in 2014/2015. There is no pedestrian access to the river or path below from the remnants of the abutment. This portion of the sidewalk will be removed to prevent pedestrians from reaching the old bridge abutment area that leads to nowhere. See Figure 3. Further, pedestrians are still permitted to use the NB110 and SB110 freeway sidewalks within the project limits. The historic staircase at the gore serves as the focal access point for pedestrians to travel on the NB110 left sidewalk from North San Fernando North of the project site) to the Los Angeles Dodgers Stadium via the SB110 left sidewalk.
Environmental Justice	According to the FHWA Community Impact Assessment Checklist (September 2023), minority populations or low-income populations would not be disproportionately affected. Minority populations or low-income populations would not suffer an adverse effect that is more severe or greater in magnitude than that of the non-minority population and/or non-low-income population. Therefore, no minority or low-income populations that would be adversely affected by the proposed project have been identified as determined above. Therefore, this project is not subject to the provisions of Executive Order 12898.

Resource	Rationale for Dismissal
Equity	According to the FHWA Community Impact Assessment Checklist (September 2023), historic disparities, such as divided communities, would not be exacerbated or remain unaddressed. Underserved communities would not experience increased exposure to pollution or other environmental health indicators.
Hydrology and Floodplain/ Water Quality and Stormwater	The proposed project is in the FEMA flood map number 06037C1628F. The flood map for this location has a status of "Flood zone (Zone X)". and is in 0.2 % Flood a non-flood hazard area. Hydrology and/or floodplain as well as Water Quality/Stormwater will not be impacted because of the proposed project. Impacts to the river or creek is not anticipated.
Noise and Vibration	According to the Traffic Noise Impact Memo (September 2023), this project is not a Type I project as defined in the 2020 Traffic Noise Analysis Protocol and it is not expected to cause a substantial permanent noise increase. Therefore, a detailed traffic noise impact study is not required for this project. However, since there are sensitive residential and recreational land uses within 150 feet of the project's location, potential construction noise impacts would need to be addressed. Through the minimization measure below: NS-1 MIN: Section 14-8.02, Sound Control Requirements, of Caltrans standard specifications states that overnight construction noise levels should not exceed sustained 86 dBA at 50 feet from the job site activities. These requirements also state that noise levels generated during construction shall comply with applicable local, state, and federal regulations. Incorporating the standard sound control requirements into the project would address temporary construction noise-related potential impacts.
Invasive Species	Because vegetation is largely lacking at each project sites, each channel will not be impacted.

2.2 HUMAN ENVIRONMENT

2.2.1 Utilities/Emergency Services

Affected Environment

Utilities and service systems crossing or adjacent to the project footprint will be identified as the project design is finalized. The utility service providers that serve the project footprint are summarized below Table 4:

Table 4: Utility Service Providers

Utility Type	Service Provider
Electricity	Southern California Edison
Natural Gas	Southern California Gas Company
Water	Metropolitan Water District of Southern California, Los Angeles Department of Water and Power, South Pasadena City Water Department
Telecommunication	AT&T, Charter Communications, DirecTV, Dish Network, Frontier Communications, Charter Spectrum, Verizon
Sewer	City of Los Angeles Department of Public Works, South Pasadena Public Works
Solid Waste	Los Angeles Bureau of Sanitation, Athens Services

Emergency services include law enforcement, crime prevention, preservation of public order, judicial court security, fire suppression, fire prevention, paramedic response, swift water rescue, and hazardous materials response. The emergency services in the project Study Area are listed in Table 5. The project study area includes four emergency service facilities, including one law enforcement agency, two fire stations, and one medical facility.

Table 5: Emergency Services

Facility Type	Facility Name	Address
Fire Protection Services	Los Angeles Fire Department – Station 12 – Highland Park/Arroyo Seco	5921 N Figueroa St, Los Angeles, CA 90042
Fire Protection Services	City of South Pasadena Fire Department	817 Mound Ave, South Pasadena, CA 91030
Law Enforcement Services	City of South Pasadena Police Department	1422 Mission St, South Pasadena, CA 91030
Medical Facilities	City of Hope – South Pasadena	209 Fair Oaks Ave, South Pasadena, CA 91030

Environmental Consequences

Alternative 1: No-Build (No-Action) Alternative

The No Build Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

Utilities

Project-related ground disturbance during construction may require intermittent disruptions of existing utilities. Utility conflicts and relocations would be identified as the project design is finalized.

If the protection or relocation of existing utilities is required, early coordination and communication with utility service providers would be conducted to ensure that impacts from the disruption of services is minimized (see measures below under section entitled Avoidance, Minimization, and/or Mitigation Measures). Existing utilities would be restored following construction activities. With the implementation of this avoidance and minimization measure, the Alternative 2 would not result in impacts on utilities.

Emergency Services

The Alternative 2 would not require the acquisition or displacement of emergency services. During construction, emergency access may be temporarily affected by detours associated with temporary freeway mainline and ramp closures, and local street closures, which would require emergency service providers to use different routes. However, prior to construction, coordination would be conducted with local emergency service providers and the surrounding community to minimize service delays and disruptions during construction (see measures below under Section entitled Avoidance, Minimization, and/or Mitigation Measures).

Avoidance, Minimization, and/or Mitigation Measures

As discussed above, utilities in the project Footprint may be removed or relocated in order to accommodate the project. As required by California state law, Underground Service Alert of Southern California (USA) would be contacted a minimum of two working days before initiating field work. Prior to contacting USA, each boring location will be delineated with white spray paint thereby outlining the proposed limits of subsurface work. A ticket number would be obtained to request utility clearance by parties with underground utilities in the areas. Following notification, utility owners and/or representatives will mark the approximate location of each subsurface utility. Prior to conducting any subsurface fieldwork, each location will be visually inspected to verify potential conflicts.

The following avoidance and minimization measures will be implemented to reduce impacts on community facilities:

ES-1 MIN: Early coordination, including notification of lane closures and detours, will be conducted with local emergency service providers to minimize potential delays or disruptions.

UT-1 MIN: If protection or relocation of utilities is required, early coordination and communication with utility service providers will be conducted to ensure that impacts from the disruption of services is minimized.

2.2.2 Traffic and Transportation/Pedestrian and Bicycle Facilities

Regulatory Setting

The Department, as assigned by the Federal Highway Administration (FHWA), directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of Federal-aid highway projects (see 23 Code of Federal Regulations [CFR] 652). It further directs that the special needs of the elderly and the disabled must be considered in all Federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

In July 1999, the U.S. Department of Transportation (USDOT) issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in federally assisted programs is governed by the USDOT regulations (49 CFR 27) implementing Section 504 of the Rehabilitation Act (29 United States Code [USC] 794). The FHWA has enacted regulations for the implementation of the 1990 Americans with Disabilities Act (ADA), including a commitment to build transportation facilities that provide equal access for all persons. These regulations require application of the ADA requirements to Federal-aid projects, including Transportation Enhancement Activities.

Affected Environment

Within the project limits, SR-110 is referred to as the Pasadena Freeway, also known as the Arroyo Seco Parkway, connects Los Angeles with Pasadena through a scenic, historic, arts and crafts themed byway. Opened to the motoring public in 1940, SR-110 was the first freeway to build in western United States. It was listed in the National Register of Historic Places in 2011 and designated as a National Scenic Byway under the National Scenic Byways Program in 2002 and National Historic Civil Engineering Landmark in 1999 by the American Society of Civil Engineers (ASCE). The corridor still reflects the original design and character envisioned when the roadway was built in 1939. This is a six-lane parkway which begins at the Four Level Interchange, a symmetrical stack interchange on the north side of downtown Los Angeles that connects the Pasadena (SR 110 north), Harbor (SR 110 south), Hollywood (US 101 north), and Santa Ana (US 101 south) Freeways. The first interchange is with the north end of Figueroa Street at Alpine Street, and the freeway then meets the north end of Hill Street at a complicated junction that provides access to Dodger Stadium. Beyond Hill Street, SR 110 temporarily widens to four northbound and five southbound lanes as it enters the hilly Elysian Park, where the northbound lanes pass through the four Figueroa Street Tunnels and the higher southbound lanes pass through a cut and over low areas on bridges.

Environmental Consequences

Alternative 1: No-Build (No-Action) Alternative

The No Build Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

Due to the limited footprint of the project and the scope of work the proposed project does not impact the operations of the roadway. Therefore, operational impacts are not anticipated as a result of the proposed project.

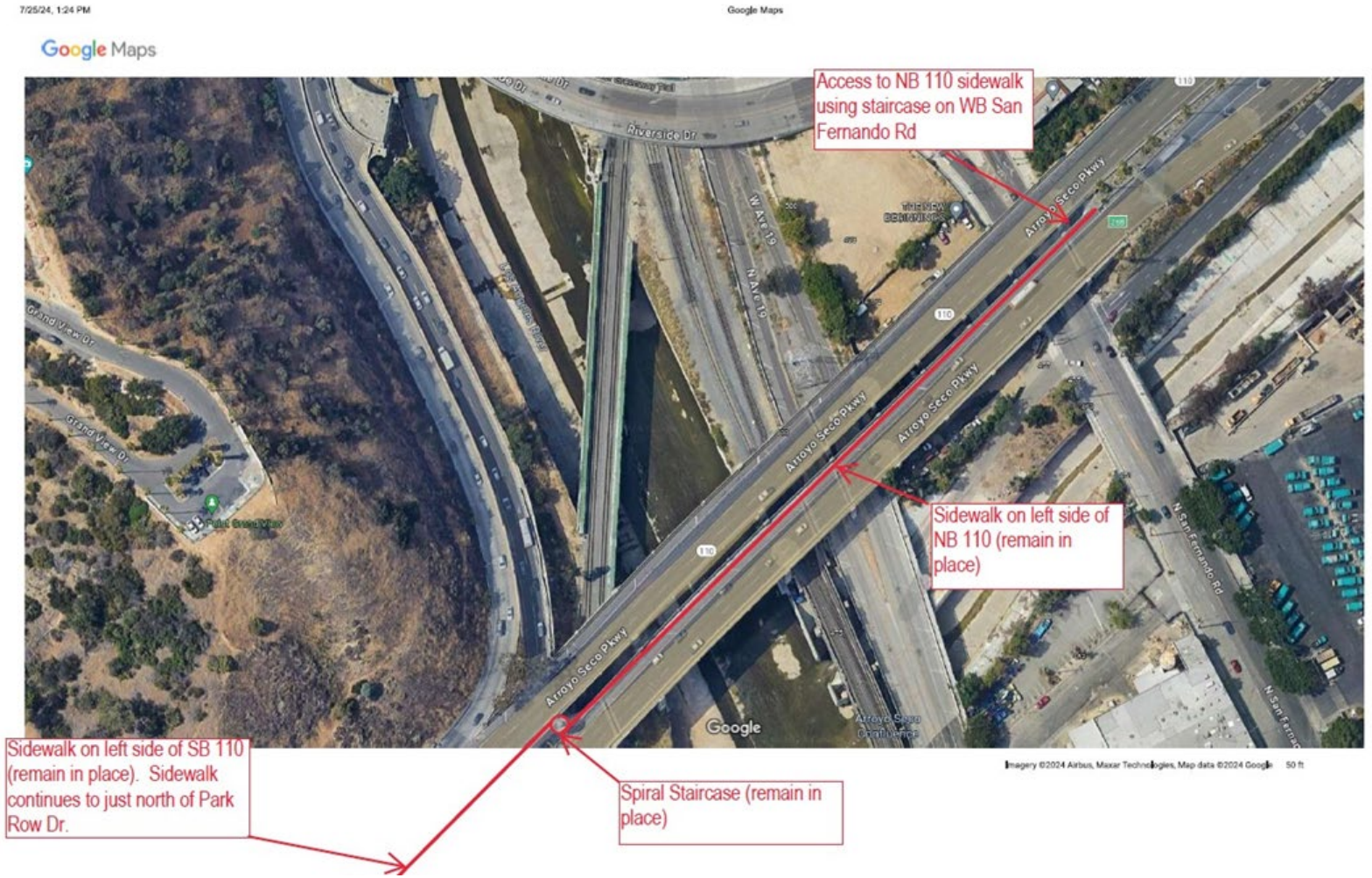
Temporary construction impacts may occur during the construction period for example, one permanent (during construction) lane closure as well as 55 hour /extended weekend closures. Any temporary impacts will be minimized with the implementation of the following minimization measures: TR-1, TR-2, and TR-3. Therefore, no substantial traffic impacts are anticipated.

The proposed project is located entirely on a facility where bicyclists and pedestrians are legally prohibited and the project does not involve a shared use path, pedestrian/bicycle structure.

The sidewalk on the Sidehill Viaduct (Br No. 53-2225G) will be removed as part of this project, the sidewalk currently terminates approximately 675 feet northwesterly from the spiral staircase at the remnants of the abutment of a former historic bridge. That bridge was the Riverside Figueroa Bridge (Br No. 53C-0160) which was demolished sometime in 2014/2015. There is no pedestrian access to the river or path below from the remnants of the abutment. This portion of the sidewalk will be removed to prevent pedestrians reaching the old bridge abutment area that leads to nowhere. See Figure 3.

Further, pedestrians are still permitted to use the sidewalks between the 110 Freeway, which is approximately a mile long. The sidewalks can be accessed in two ways. One is on the south side through Stadium Way in Chinatown just south of Dodger Stadium. The second access point is on the northside through San Fernando Rd. near Cypress Park and Lincon Heights. This is a narrow walkway that would take pedestrians to the spiral staircase at the gore, which serves as the focal access point for pedestrians to travel on the NB110 left sidewalk from North San Fernando north of the Project site) to the Los Angeles Dodgers Stadium and Elysian Park via the SB110 left sidewalk. The pedestrian access points shown in Figure 6 are anticipated to remain open during and post construction of the proposed project.

Figure 6: Access Points Remaining Open for Pedestrians



Avoidance, Minimization, and/or Mitigation Measures

TR-1 MIN: A Transportation Management Plan (TMP) will be prepared and implemented for the project during the construction phase of the project, which will include public information, motorist information, incident management, construction, demand management, and alternate routes or detours.

TR-2 MIN: A Construction Staging Plan would be prepared and implemented during construction.

TR-3 MIN: Prior to construction, coordination would be conducted with public transportation agencies to provide rerouting information, including operating schedules, to the public at least one month in advance of any service disruptions.

2.2.3 Visual/Aesthetics

Regulatory Setting

The National Environmental Policy Act (NEPA) of 1969, as amended, establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and aesthetically (emphasis added) and culturally pleasing surroundings (42 United States Code [USC] 4331[b][2]). To further emphasize this point, the Federal Highway administration (FHWA), in its implementation of NEPA (23 USC 109[h]), directs that final decisions on projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

The California Environmental Quality Act (CEQA) establishes that it is the policy of the state to take all action necessary to provide the people of the state "with…enjoyment of aesthetic, natural, scenic and historic environmental qualities" (CA Public Resources Code [PRC] Section 21001[b]).

California Streets and Highways Code Section 92.3 directs Caltrans to use drought resistant landscaping and recycled water when feasible and incorporate native wildflowers and native and climate-appropriate vegetation into the planting design when appropriate.

Affected Environment

According to the Visual Impact Assessment Memorandum (February 2024), the proposed project is on State Route 110 (SR- 110) at Post Miles 25.46 to 30.1 between Arroyo Seco Channel Bridge and Interstate 5 (I-5) connector ramp in the City of Los Angeles and South Pasadena in Los Angeles County, California. The project is in Los Angeles Eastside and the San Gabriel Valley of Southern California.

At the south end of the project, the landscape is characterized by ruderal plants and some trees on the hillside. At the north of the project, recreational activities and open space sports park with planted vegetation has replaced the natural environment.

This segment of SR-110 connects Downtown Los Angeles to City of Pasadena and is part of the Arroyo Seco Parkway, also known as the Pasadena Freeway. The Arroyo Seco Parkway is a designated National Scenic Byway. It is also listed in the National Register of Historic Places as the Arroyo Seco Parkway Historic District. The majority of the project limit is in a suburban area consisting of residential with some commercial and industrial use. At the north end of the project, an open space parkland is reserved for mix recreational and sport activities. Infrastructures such as railroad tracks, bridges, and concrete flood control channels separate and shield the residential and parkland from the freeway.

Description of Landscape Visual Character

The visual character at the proposed project site consists of concrete structures, residential, commercial buildings, hillsides, and opened parkland with planted vegetation. At the connector ramp, existing vegetation on the slope between the bridge and the flood control channel wall consists of ruderal plants and a few unhealthy trees. The planted trees at Ave 43 and the Arroyo Seco Bridge sit on both ends of the bridge abutment, away from the bridge barrier.

Description of Landscape Visual Quality

The visual quality of the existing corridor consists of roadway, railroad tracks, bridges, and concrete flood control channel that intersected each other to form a connected infrastructure.

Environmental Consequences

Alternative 1: No-Build (No-Action) Alternative

The No Build Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

Viewers

Neighbors (people with views *to* the transportation project) around the connector ramp will be affected by the proposed project. The railroad tracks, bridges, and concrete flood control channel separate the residential area and obscure their view of the connector ramp. There is no direct line of sight from the neighborhood to the site. The neighbors at Ave 43 Bridge and recreational users at the park near Arroyo Seco Flood Channel Bridge have closer exposure to the bridge barriers. But, since their focus will be on their activities instead of looking up to the bridge barriers, the modest change will have low impact on their viewpoint.

Travelers (people with views *from* the transportation project) will not be affected by the proposed project at Ave 43 and the Arroyo Seco Flood Channel Bridge. At the speed of travel under the bridge, the modest change will not alter their view of the barrier aesthetics. The travelers will experience moderate change to their visual experience while driving thru the connector ramp. The intermittent near view of the Los Angeles River Flood Control Channel below will be blocked by the solid concrete barrier with indention that mimic existing barrier opening. The distance view of bridges, railroad tracks, residential neighborhood, and hills over the barrier will remain the same.

Evaluation of Visual Impact

The proposed project will be compatible with the existing visual character of the corridor. The new retaining wall and barriers will display similar scale and line as the removed sidehill viaduct bridge and bridge barriers. Further, the proposed project will alter the

visual quality of the corridor slightly at the SR-110 and I-5 connector ramp. The existing sidehill viaduct bridge piers and footings will be replaced by retaining wall. The aesthetic treatment on the retaining wall and barrier will retain similar character as existing and nearby walls and barriers. The arcs between the piers are replaced with indented textured wall. The detail of the structures might have changed, but at a distance the cohesiveness of all infrastructures will remain intact.

At Ave 43 and the Arroyo Seco Bridge, the visual change will be low since the replacement bridge barrier will have similar material and see thru openings as the existing bridge barriers.

The State Historic Preservation Officer concurred with Caltrans' findings (September 2024) that the proposed context sensitive designs, and the fact that most of the contributing resources to the historic district retain their original bridge rails would not adversely affect the Arroyo Section Parkway Historic District. Further, review of the project site and the proposed design indicates the project will result in minor impacts to the visual environment. The retaining wall that replaces the existing sidehill viaduct bridge will expose a new wall face on the hillside instead of the existing bridge piers and arches. The new retaining wall will be visually compatible with the surrounding environment as there is an existing retaining wall just above the removed bridge. A few unhealthy trees, between the new retaining wall and the flood control channel wall will be removed, which will result in vegetation loss. There is no plan to replace the trees due to lack of safe access and space for maintenance. The overall visual change and visual sensitivity to all three project sites and the Arroyo Seco Corridor will be low to moderate due to the proposed improvements are replacement features and are not new features.

The proposed project will not change the historic district's relations to its surroundings in which it was built and have no effect on the Arroyo Seco Parkway Historic District's ability to convey its integrity of setting. The Arroyo Seco Parkway Historic District still retains its original alignment within the Arroyo Seco natural drainage area. It will still function as it was originally intended as a scenic transportation corridor. The loss of two original bridge rails will not diminish enough of the setting as to no longer express its setting through its original designs. Also, the new bridge railings will be compatible with the original railing types of the district. Therefore, the proposed project is consistent with the scenic corridor protection program.

Temporary construction impacts are not anticipated as a result of the proposed project due to the limited footprint of the project. VIS-MIN 1 through VIS-MIN 4 will be implemented to ensure the minimization of any potential impacts.

Avoidance, Minimization, and/or Mitigation Measures

VIS-MIN 1: The design strategy is to retain the visual character of existing aesthetic features. The aesthetic treatment on the retaining wall and concrete barrier are to complement the color and pattern of other structures in the corridor. The existing concrete or metal baluster posts on the concrete barrier with see thru opening will be replaced with similar material and design.

VIS-MIN 2: Avoid and/or minimize removal of existing vegetation. At the connector ramp, a few unhealthy trees on the slope between the retaining wall and flood control channel wall will be removed. Replacement trees are not proposed due to lack of safe access and limited space. No trees are anticipated to be removed at Ave 43 Bridge and Arroyo Seco Channel Bridge.

VIS-MIN 3: Metallic surfaces, where feasible and applicable, are to be treated with oxidizing agent to appear aged and non-reflective.

VIS-MIN 4: Apply erosion control to all disturbed slopes; seed species, if applicable, to be California native plants or native to the Arroyo Seco Watershed.

2.2.4 Cultural Resources

Regulatory Setting

The term “cultural resources,” as used in this document, refers to the “built environment” (e.g., structures, bridges, railroads, water conveyance systems, etc.), places of traditional or cultural importance, and archaeological sites (both prehistoric and historic), regardless of significance. Under federal and state laws, cultural resources that meet certain criteria of significance are referred to by various terms including “historic properties,” “historic sites,” “historical resources,” and “tribal cultural resources.” Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act (NHPA) of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on those undertakings, following regulations issued by the ACHP (36 Code of Federal Regulations [CFR] 800). On January 1, 2014, the First Amended Section 106 Programmatic Agreement (PA) among the Federal Highway Administration (FHWA), the ACHP, the California State Historic Preservation Officer (SHPO), and the Department went into effect for Department projects, both state and local, with FHWA involvement. The PA implements the ACHP’s regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to the Department. The FHWA’s responsibilities under the PA have been assigned to the Department as part of the Surface Transportation Project Delivery Program (23 United States Code [USC] 327).

The California Environmental Quality Act (CEQA) requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as “unique” archaeological resources. California Public Resources Code (PRC) Section 5024.1 established the California Register of Historical Resources (CRHR) and outlined the necessary criteria for a cultural resource to be considered eligible for listing in the CRHR and, therefore, a historical resource. Historical resources are defined in PRC Section 5020.1(j). In 2014, Assembly Bill 52 (AB 52) added the term “tribal cultural resources” to CEQA, and AB 52 is commonly referenced instead of CEQA when discussing the process to identify tribal cultural resources (as well as identifying measures to avoid, preserve, or mitigate effects to them). Defined in PRC Section 21074(a), a tribal cultural resource is a CRHR or local register eligible site, feature, place, cultural landscape, or object which has a cultural value to a California Native American tribe. Tribal cultural resources must also meet the definition of a historical resource. Unique archaeological resources are referenced in PRC Section 21083.2.

PRC Section 5024 requires state agencies to identify and protect state-owned historical resources that meet the NRHP listing criteria. It further requires the Department to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic

Preservation Officer (SHPO) before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the NRHP or are registered or eligible for registration as California Historical Landmarks. Procedures for compliance with PRC Section 5024 are outlined in a Memorandum of Understanding (MOU) between the Department and SHPO, effective January 1, 2015. For most Federal-aid projects on the State Highway System, compliance with the Section 106 PA will satisfy the requirements of PRC Section 5024.

Affected Environment

The following Studies/Concurrence Letter have been prepared for the proposed project:

- Historic Property Survey Report (HPSR), (July 2024)
- Finding of No Adverse Effect (FOE), (July 2024)
- Archaeological Survey Report (ASR), (June 2024)
- State Historic Preservation Officer SHPO Concurrence (September 2024)

According to the HPSR (July 2024) and the ASR (June 2024), the Area of Potential Effects (APE) is described as follows:

In accordance with Section 106 PA Stipulation VIII.A, the Area of Potential Effects (APE) for the project was established in consultation with Joshua Knudson, PQS Principal Architectural Historian, and Juan Arias, project Manager, on May 29, 2024. See Figure 7 through Figure 10.

The APE was established as four (4) discontiguous locations corresponding to each of the three project bridges and one overhead sign location. Most of the APE conforms to the limits of each of the bridges, while also expanding within the right-of-way to include other areas of direct impact for various project activities.

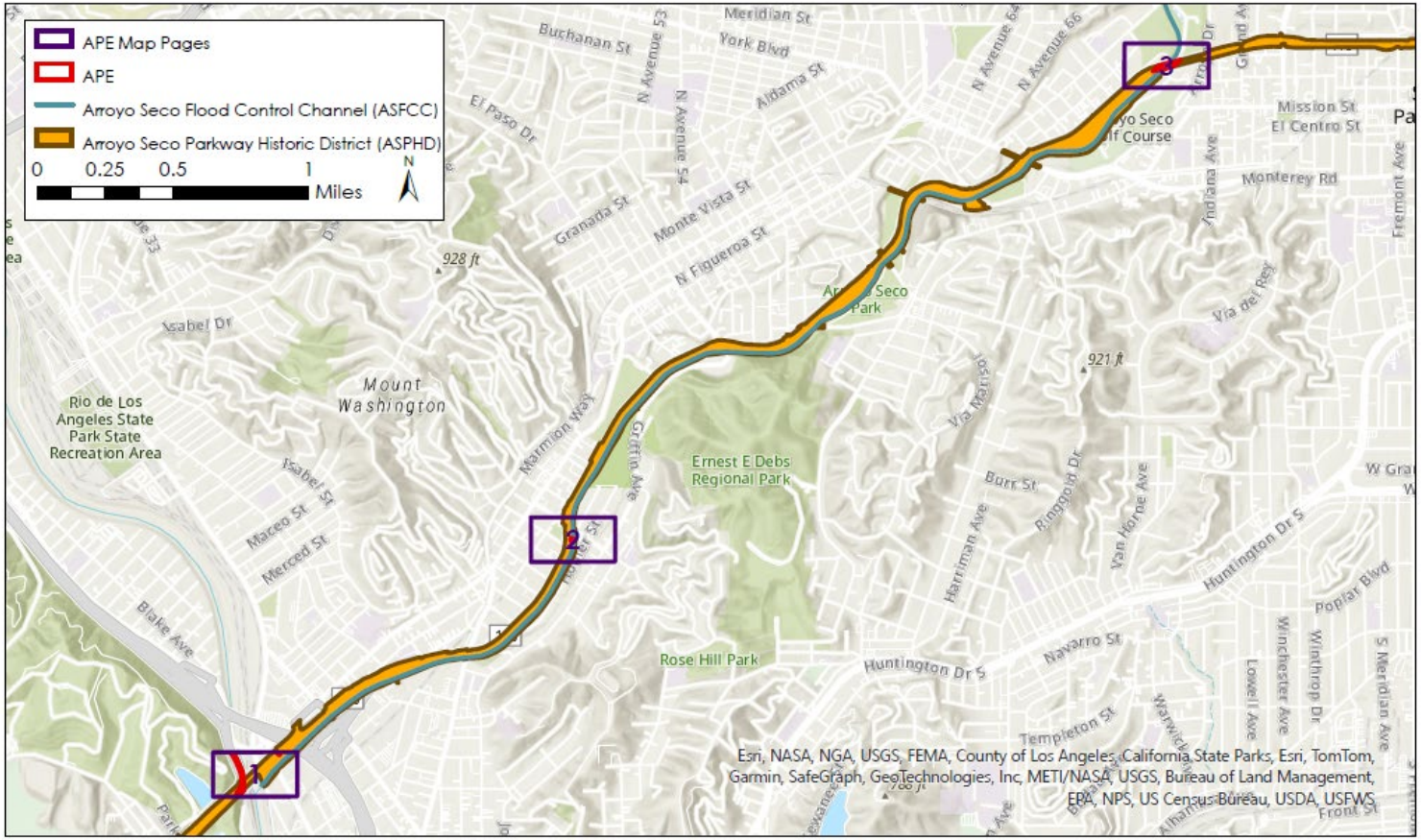
The APE consists of one boundary which contains both the direct and indirect effects of the project's activities. The vertical APE above ground extends approximately 30 feet to the top of the overhead sign structure and below the surface to a maximum depth of 15 feet for the cast-in-drilled-hole (CIDH) soldier piles to support to retaining wall. The vertical APE also extends from the bridge deck down to the bottom of the Arroyo Seco Flood Control Channel (ASFCC) at two locations (Avenue 43 Offramp and the Arroyo Seco Channel Bridge) to provide temporary access for retrieval of lost tools or items.

Further, resources identified by the records search included one prehistoric site and one historic-age isolated find. The prehistoric site consisted of one human burial covered by a rock cairn (P-19-003057/CA-LAN-3057) and the historic isolate consisted of a single bottle (P-19-101374). Neither of these resources are within the current APE.

Caltrans archaeologist Kim Harrison performed a search of the Caltrans Cultural Resource Database (CCRD), District files, photographs, and maps, with negative results.

On October 23, 2023, Caltrans requested a search of the Native American Heritage Commission (NAHC) Sacred Lands File and received a positive response on November 18, 2023. Native American consultation was initiated on October 11, 2023, and October 23, 2023, under Section 106 and Assembly Bill 52 (AB52). Additional and follow up consultation notifications were sent on November 18, 2023, to individuals identified in the contact list provided by the NAHC. To date, representatives of three tribes have requested consulting party status. Concerns from tribal representatives were focused on concerns for a repatriated burial located outside the current project APE.

Figure 7: APE Map



Caltrans

Figure 3. Area of Potential Effects
LA 110 Sidehill Viaduct & Bridge Rails
07-LA-110 PM 25.34/30.1
EA 07-37130 & 07-36930
Cover Sheet

Joshua Knudson 5/29/24
Joshua Knudson Date
PQS Principal Architectural Historian

5/29/24
Juan Arias Date
Project Manager

Figure 8: APE Map Continued

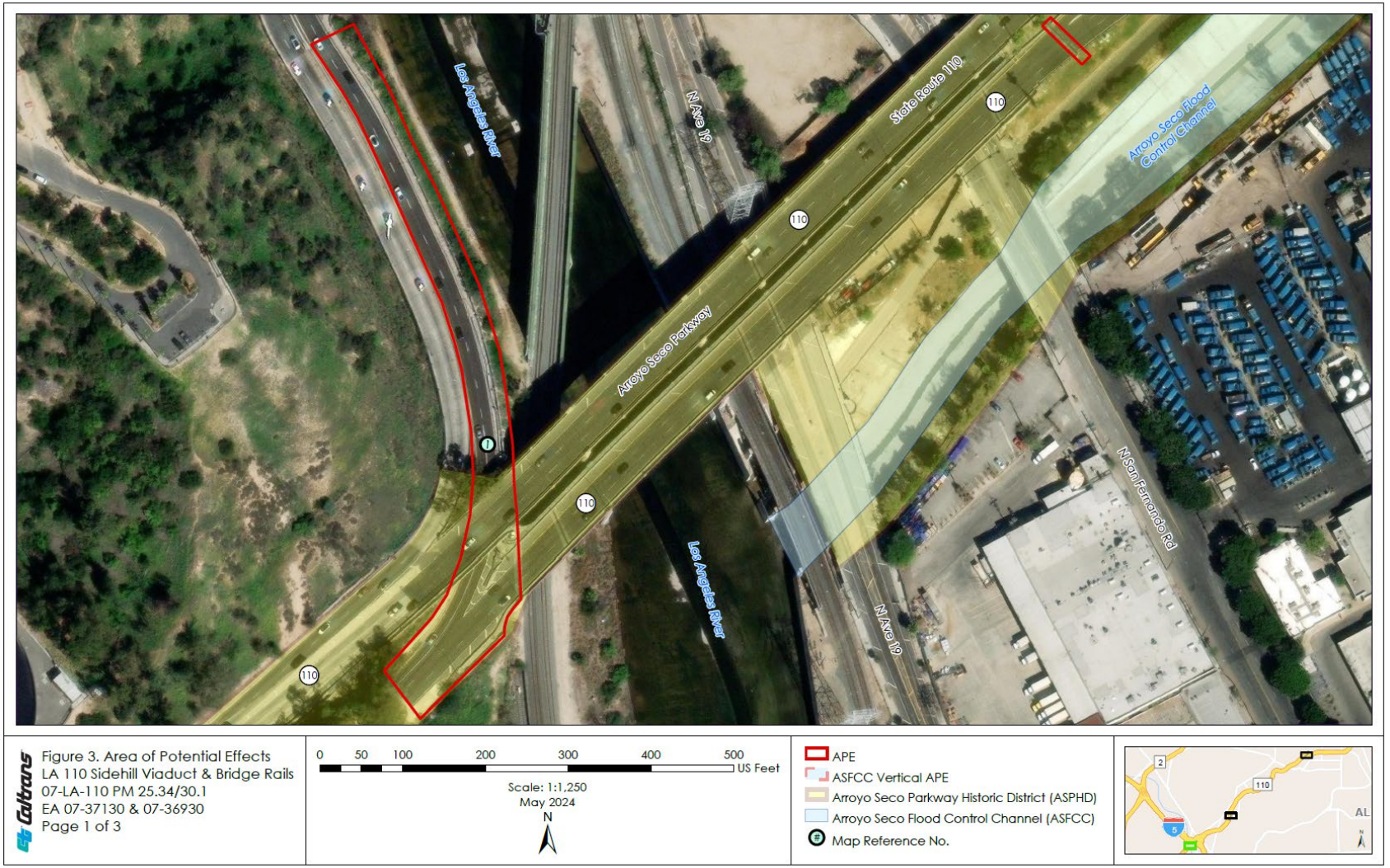
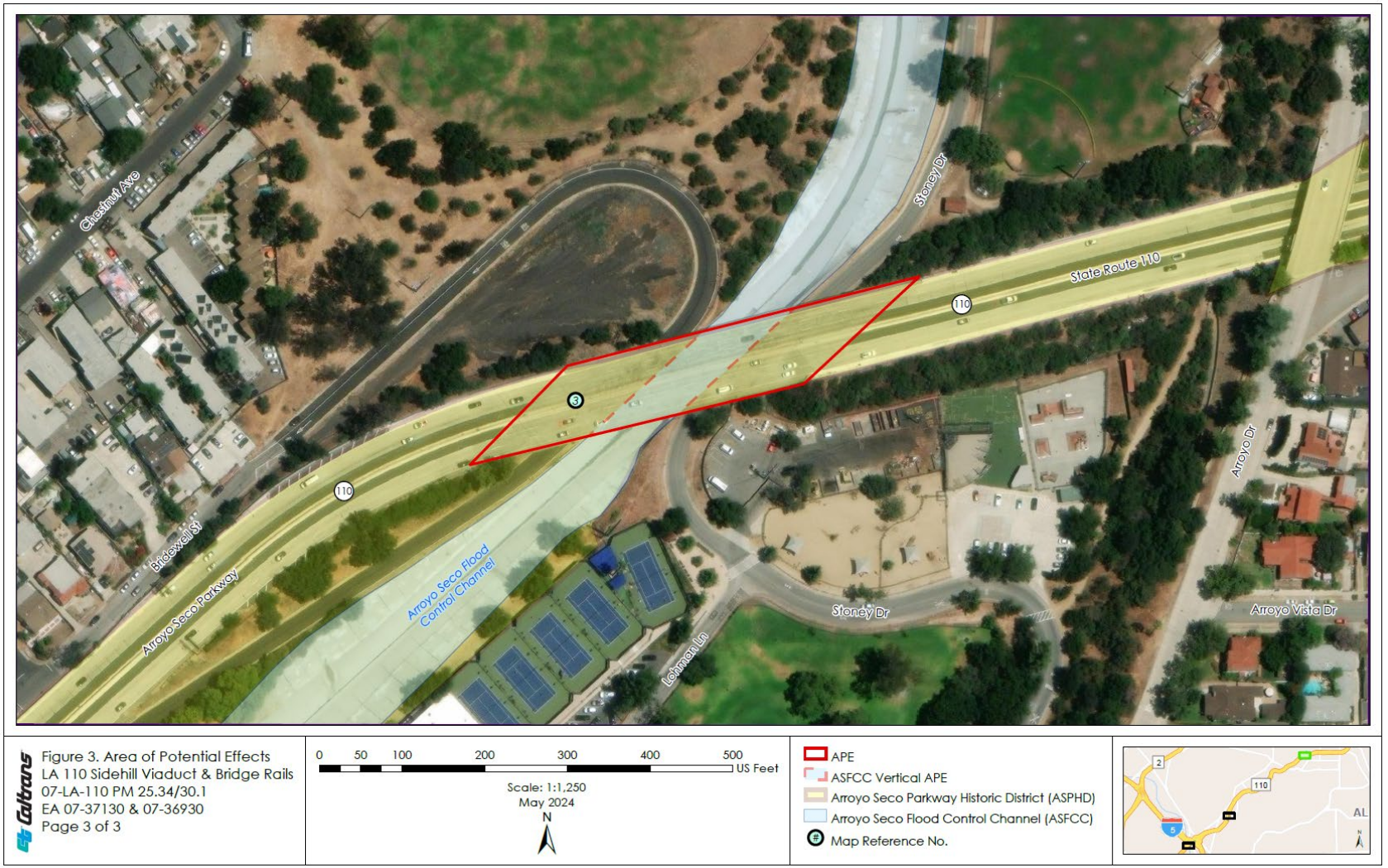


Figure 9: APE Map Continued



Figure 10: APE Map Continued



Summary of Identification Efforts

The following resources were used to ensure the identification of relevant Cultural Resources:

- National Register of Historic Places (NRHP)
- California Register of Historical Resources (CRHR)
- National Historic Landmark (NHL)
- California Historical Landmarks (CHL)
- California Points of Historical Interest
- Caltrans Historic Bridge Inventory
- Caltrans Cultural Resources Database (CCRD)

Environmental Consequences

Alternative 1: No-Build (No-Action) Alternative

The No Build Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

After delineating the Area of Potential Effect (APE), it was determined that two historic properties existing within the APE. First, the National Register of Historic Places (NRHP) listed Arroyo Seco Parkway Historic District (ASPHD), with two (2) contributing resources and one (1) non-contributing resource corresponding to locations of construction. The other is the NRHP determined eligible Arroyo Seco Flood Control Channel (ASFCC), of which a segment is also a contributing resource to the ASPHD. The ASPHD is also considered a state-owned historical resource for the purposes of PRC 5024 and is on the Master List.

After applying the Criteria of Adverse Effect, three (3) potential criteria applied to the proposed project's work within the two (2) historic properties. Two (2) contributing resources of the ASPHD, the Avenue 43 Offramp and the Arroyo Seco Channel Bridge, will have their bridge rails altered (ii) which will change its physical features or CDFs that contribute to the historical significance of the district (iv). The Sidehill Viaduct (Bridge No. 53-2225G), a non-contributing resource to the ASPHD) will be demolished and replaced with a slightly wider new bridge structure supported by a retaining wall and will feature a new modern style bridge railing. The additional work around the sidehill viaduct such as the overhead sign structure, sign panels, crash cushions, will all be modifying, removing, or replace non-historic, non-original features of the ASPHD with

similar features. As the Sidehill Viaduct is considered a non-contributing resource, there will be no effect to the ASPHD's integrity of design, workmanship, materials, or association either from the bridge replacement and retaining wall or the addition work described above. However, the proposed designs of the new bridge rail and retaining wall pose the potential to affect the ASPHD's integrity of setting and feeling. Due to the context sensitive design solutions of the recessions on the front and back of the bridge rail and the aesthetic treatment applied to the retaining wall, there is no adverse effect to the integrity and setting of the ASPHD as the context sensitive design fits with the ASPHD. Additionally, the removal and replacement of the non-contributing Riverside Drive Offramp Viaduct (N110-N5 Connector Sidehill Viaduct) in addition to the formerly mentioned two (2) new bridge rails could potentially introduce visual elements that might diminish the integrity of the district's significant historic features (v). There will be no effect to the ASFCC due to it only being included in the APE for temporary access.

Even though, the proposed undertaking will remove two (2) original bridge railings on two (2) contributing bridges of the ASPHD, there is not enough of an effect to the integrity of the ASPHD as to diminish its eligibility of listing in the NRHP. The ASPHD contains a high-level of contributing bridges with their original bridge railings (65.9%) and the loss of two (2) original bridge railings would only decrease that percentage to 62.79%. Additionally, the new proposed bridge railings of Concrete Barrier Type 86H (Mod)-Concrete Baluster post and bream see-thru barrier, as well as the Concrete Barrier Type 85 Mod- Metal Baluster post and beam see-thru barrier are a compatible, context sensitive design that lessens the visual and setting effects of the project, while still being clearly differentiated from the original railings. Therefore, the replacement of two (2) bridge rails will have No Adverse Effect to the ASPHD.

Further, after consulting the above referenced sources, which include records searches completed as part of other projects that cover the project area, a total of 90 previous investigations have been conducted within the 0.5- mile records search radius between 1974 and 2017. Of these, 28 of the investigations overlap the APE and were conducted between 1974 and 2014. The 28 studies cover the total of APE. The 90 investigations were comprised of cultural resources surveys, general environmental documents, and ethnographic overviews for Los Angeles County.

A total of 170 previously recorded cultural resources have been identified within the 0.5-mile records search radius. Of these, one is a prehistoric site, one is a historic-age isolated find, and 168 are historic-age built environment resources. The prehistoric site consists of one repatriated human burial covered by a rock cairn (P-19-003057/CA-LAN-3057) and the historic isolate consists of a single bottle (P-19-101374). None of the resources are located within the current APE.

The only built-environment cultural resources within the APE is the NRHP listed Arroyo Seco Parkway Historic District (ASPHD) and the NRHP determined eligible Arroyo Seco Flood Control Channel (ASFCC), which is also a contributing resource to the ASPHD.

According to the ASR (June 2024), two previous records searches of the APE have been performed within the last five years. These records searches were conducted at the South-Central Coastal Information Center (SCCIC) at California State University, Fullerton.

The first in support of Caltrans project EA 33150 Arroyo Seco Parkway Safety and Operational Enhancements was conducted on July 22, 2020. The records search included the current APE from PM 25.78 to 30.1 as well as a 0.5-mile buffer. Cultural resources identified by the records search included one prehistoric site and one historic-age isolated find. The prehistoric site consisted of one human burial covered by a rock cairn (P-19-003057/CA-LAN-3057) and the historic isolate consisted of a single bottle (P-19-101374). Neither of these resources are within the current APE.

The southern project with records search was for LA 110 Operational Improvements EA 37430 PM 23.7 to PM 25.0 with a 0.25-mile buffer. The search was performed on January 31, 2024.

Caltrans archaeologist Kim Harrison performed a search of the Caltrans Cultural Resource Database (CCRD), District files, photographs, and maps, with negative results. Based on the results of the records search and literature review, the review of geologic and historic maps, the nature of construction, Caltrans concluded that the potential for encountering buried archaeological deposits is low. No archaeological resources were identified within the APE. The results of this investigation are based on the description of the proposed work, the environment and underlying geology, Caltrans records, previous archaeological surveys of the APE, and the disturbed nature of the study area, Caltrans District 7 staff concludes that there is a low probability of encountering buried archaeological resources during construction and archaeological monitoring is not warranted for this project.

When the project work is analyzed within the context of the entire district, using context sensitive designs (the three types of bridges rails and retaining wall aesthetic treatment) and the large majority of contributing resources still retaining high levels of integrity and original bridge rails, the overall effects to the ASPHD are considered Not Adverse and that there will be No Effect to the ASFCC.

Caltrans has received concurrence on the FNAE on September 3, 2024, which can be found in Chapter 4 Comments and Coordination.

If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

If human remains are discovered, California Health and Safety Code (H&SC) Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. If the remains are thought by the coroner to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), who, pursuant to PRC Section 5097.98, will

then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact Kimberly Harrison (213)266-6935 or kimberly.harrison@dot.ca.gov so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

Avoidance, Minimization, and/or Mitigation Measures

CUL MIN- 1: Caltrans' standard specification to stop work in the event that artifacts or other cultural materials are encountered will apply, i.e., should buried cultural materials be encountered during construction, it is Caltrans policy that work in that area must stop until a qualified archaeologist can evaluate the nature and significance of the find. Should project plans change to include unsurveyed areas, additional archaeological studies will be required.

2.3 PHYSICAL ENVIRONMENT

2.3.1 Geology/Soils/Seismic/Topography

Regulatory Setting

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects "outstanding examples of major geological features." Topographic and geologic features are also protected under the California Environmental Quality Act (CEQA).

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. Structures are designed using the Department's Seismic Design Criteria (SDC). The SDC provides the minimum seismic requirements for highway bridges designed in California. A bridge's category and classification will determine its seismic performance level and which methods are used for estimating the seismic demands and structural capabilities. For more information, please see the Department's Division of Engineering Services, Office of Earthquake Engineering, Seismic Design Criteria.

Affected Environment

According to the Geotechnical Memo (January 2024), the N110-N5 Connector Sidehill Viaduct (Bridge 53-2225G) existing structure is supported by shallow foundations built directly on bedrock. At the southern end of the project bridge foundations are placed on thinly bedded sandstone/shale bedrock with a nearly vertical slope below. Underneath two foundations at the southern end it appears that some of the bedrock material has fallen/eroded away exposing a portion of the bottom of footing. If the existing structure is left in place erosion may continue to occur at these locations impacting the local stability of the structure.

Environmental Consequences

Alternative 1: No-Build (No-Action) Alternative

The No Build Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts. Also, erosion may continue to occur at these locations impacting the local stability of the structure.

Alternative 2: Build Alternative

The 36-inch diameter cast-in-drilled-hole soldier piles supporting the retaining walls are estimated to be approximately 10 feet below the bottom of wall.

Potential Landslide and Liquefaction Hazard: There is a mapped quaternary age landslide just to the north of the proposed project (Dibble, 1989 and Lamar, 1970). The kinematics and failure type are unknown. However, due to the steepness (approximately 1H:1V) of the slope to the west of the project area and the project site being in an earthquake zone of required investigation (ZORI) for landslide hazard mapped by the California Geological Survey (CGS) slope stability issues must be accounted for during construction. Although the project is mapped within a ZORI for liquefaction hazard mapped by the CGS the project site will be founded on bedrock, therefore the liquefaction potential is extremely low.

Southbound Connector Retaining Wall Stability: The proposed improvements will impact the stability of the southbound connector retaining wall. A slope stability analysis will have to be performed for temporary conditions during the construction of the northbound connector retaining wall.

Groundwater: There is potential to enter groundwater during drilling operations toward the northern edge of the project. Depth to groundwater based on historical groundwater elevations of nearby monitoring wells is approximately 32 feet below ground surface at the northern end of the project.

Fault Rupture/Ground Movement: The project is not located in an Alquist-Priolo Fault zone. However, the site is located near a fault trace of the Elysian Park Fault (Lamar, 1970). According to Oskin et al 2000, the fault is capable of a magnitude 6.2 to 6.7 earthquake every 500 to 1300 years.

AVE 43 OFFRAMP (BRIDGE NO. 53-0985S)

No adverse geotechnical impacts are expected based on the project scope.

ARROYO SECO CHANNEL BRIDGE (BRIDGE NO. 53-0276)

No adverse geotechnical impacts are expected based on the project scope.

Avoidance, Minimization, and/or Mitigation Measures

GT MIN-1: A zone of required investigation (ZORI) for landslide hazard mapped by the California Geological Survey (CGS) slope stability issues must be accounted for during construction.

GT MIN-2: A slope stability analysis will have to be performed for temporary conditions during the construction of the northbound connector retaining wall.

2.3.2 Paleontology

Regulatory Setting

Paleontology is a natural science focused on the study of ancient animal and plant life as it is preserved in the geologic record as fossils.

A number of federal statutes specifically address paleontological resources, their treatment, and funding for mitigation as a part of federally authorized projects.

16 United States Code (USC) 431-433 (the “Antiquities Act”) prohibits appropriating, excavating, injuring, or destroying any object of antiquity situated on federal land without the permission of the Secretary of the Department of Government having jurisdiction over the land. Fossils are considered “objects of antiquity” by the Bureau of Land Management, the National Park Service, the Forest Service, and other federal agencies.

16 United States Code (USC) 461-467 established the National Natural Landmarks (NNL) program. Under this program property owners agree to protect biological and geological resources such as paleontological features. Federal agencies and their agents must consider the existence and location of designated NNLs, and of areas found to meet the criteria for national significance, in assessing the effects of their activities on the environment under NEPA.

16 United States Code (USC) 470aaa (the Paleontological Resources Preservation Act) prohibits the excavation, removal, or damage of any paleontological resources located on federal land under the jurisdiction of the Secretaries of the Interior or Agriculture without first obtaining an appropriate permit. The statute establishes criminal and civil penalties for fossil theft and vandalism on federal lands.

23 United States Code (USC) 1.9(a) requires that the use of Federal-aid funds must be in conformity with all federal and state laws.

23 United States Code (USC) 305 authorizes the appropriation and use of federal highway funds for paleontological salvage as necessary by the highway department of any state, in compliance with 16 USC 431-433 above and state law.

Under California law, paleontological resources are protected by the California Environmental Quality Act (CEQA).

Affected Environment

A combined Paleontological Evaluation Report and Paleontological Mitigation Report (August 2024) was prepared for the proposed project, which serves as a guide for managing paleontological resources that may be impacted by the proposed project.

According to the geologic map and reports reviewed, the late Miocene marine Puente Formation underlies the project area (Dibblee and Ehrenspeck, 1989; Critelli et al., 1995). Limited aerial photo and previous reports depict the project is immediately underlain by sandstone and siltstone bedrock of the Puente.

Critelli et. al (1995) describe the Puente as a Middle-Upper Miocene clastic unit lying unconformably on the Lower-Middle Miocene El Modeno Volcanics and Topanga Group, in the Los Angeles basin. The Puente Formation, about 3900 m thick, is composed of conglomerate, sandstone, and mudrock deposited as a submarine fan at bathyal depths. Several intrabasinal discordances suggest tectonic activity during deposition. The succession consists of two main upward-thickening and - coarsening megacycles, reflecting submarine-fan progradation. The Puente Formation is characterized up-section by: (1) thin-bedded sandstone and shale (La Vida Member) grading to thick-bedded sandstone and conglomerate (Soquel Member); (2) thin-bedded mudrock and sandstone (Yorba Member) grading to thick- to very thick-bedded sandstone and conglomerate (Sycamore Canyon Member).

The Puente Formation can contain significant terrestrial vertebrate fossils, terrigenous plant fossils, including pollen (micro-paleobotany), as well as fossil fish and marine mammals (Barboza et al., 2017, Carnevale et al., 2008; David, 1943; Feldman, 2003; Hilton and Grande, 2006; Huddleston and Takeuchi, 2006). Some of these are: porpoise, baleen and sperm whale, seal, hatchet fish, viperfish, moras, cods, and herrings. In addition to micro paleo and pollen, the formation can also contains marine microfossils of foraminifera. Table 6 summarizes the paleontological sensitivity.

Table 6: Paleontological Sensitivity Summary

Caltrans Sensitivity Designation	Characteristics of Geologic Units in this Category
High Potential (High Sensitivity) • **Puente Formation**	This category consists of rock units known to contain significant vertebrate, invertebrate, or plant fossils anywhere within their geographic extent, including sedimentary rock units that are suitable for the preservation of fossils, as well as some volcanic and low-grade metamorphic rock units. This category includes rock units with the potential to contain: abundant vertebrate fossils; a few significant vertebrate, invertebrate, or plant fossils that may provide new and significant taxonomic, phylogenetic, ecological, and/or stratigraphic data; areas that may contain datable organic remains older than recent; areas that may contain unique new vertebrate deposits, traces, and/or trackways; and fossiliferous deposits with very limited geographic extent or an uncommon origin (e.g., tar pits and cave deposits).
Low Potential (Low Sensitivity) • None	This category includes sedimentary rock units that are potentially fossiliferous, but have not yielded significant fossils in the past; have not yet yielded fossils, but have the potential to contain fossil remains; or contain common and/or widespread invertebrate fossils of species whose taxonomy, phylogeny, and ecology are well understood.
No Potential (No Sensitivity) **Artificial fill** **Surficial soils**	This category includes rock units of intrusive igneous origin, most extrusive igneous rocks, and moderate- to high-grade metamorphic rocks.

Environmental Consequences

Alternative 1: No-Build (No-Action) Alternative

The No Build Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

The Puente Formation has produced fossils, and some can be considered significant. Thus, fossil remains recovered during construction of the proposed project could potentially be significant and scientifically important. However, the potential to impact paleontological resources depends on the depths of proposed earthwork and excavations, previous site disturbances, and the presence of non-fossiliferous sediment. Table 7 lists all the project's proposed excavations areas into geologic unit (Puente Fm.) and is largely the ground disturbing work for the soldier pile and ground anchor earth retaining system.

Precise excavation depths are unknown at this time, but the Puente Formation will be impacted during proposed earth retaining system construction, removal of the existing viaduct and sidewalk, and widening of the right shoulder from 2 feet to 10 feet also has potential to disturb the Puente Formation.

Table 7: Proposed Excavations

N110-N5 Connector Sidehill Viaduct Postmile 25.34 (Bridge No. 53-2225G)	
Alternative Component	**Deep Excavations**
Remove the existing viaduct and sidewalk and replacing with a retaining wall	Yes
Widen right shoulder from 2 feet to 10 feet	Yes
Remove the existing entire bridge structure and construct a retaining wall to support shoulder widening and concrete barrier railing Type 836	Yes
Upgrade three overhead sign structures and three overhead sign panels.	No
Upgrade crash cushions and install channelizers at the gore area.	
Upgrade four highway safety lighting.	No
Upgrade roadway signs along the connector.	No
Install rumble strips at the edge of connector's right shoulder.	No
Ave 43 Offramp Postmile 27.08 (Bridge No. 53-0985S	
Replace bridge railing on N110 at Ave 43 Ramp Bridge	No
Bridge railings will be replaced with Concrete Barrier (Type 85 Mod)	No
Existing overhang will be removed and reconstructed to accommodate new barrier reinforcement, as well as additional transverse deck bars required at post locations	No
Arroyo Seco Channel Bridge Postmile 30.1 (Bridge No. 53-0276)	
Replace bridge railing on N110 and S110 at Arroyo Seco Channel Bridge	No
The existing 6'-2" curb and railing will be removed and reconstruct portion of the deck to accommodate new barrier reinforcement, as transverse deck bars required at post locations	No

Project Excavation Parameters and Paleontological Monitoring

There are no new build parameters for Alternative 1: No-Build (No-Action) Alternative

Alternative 2 construction activities will impact paleontologically sensitive geologic units when previously undisturbed sediments or bedrock underlying a project are excavated, augured, trenched, graded, or crushed. This can result in impacts to fossils by destroying them, displacing them, or otherwise altering them in such a way that their scientific value is lost.

Alternative 2 footprint lies within geologic units with a high paleontological sensitivity and significance, and excavation is expected to extend to significant members of the Puente Formation. See Table 8 for areas needing paleontological monitoring.

Table 8: Paleontological Monitoring Needed

N110-N5 Connector Sidehill Viaduct Postmile 25.34 (Bridge No. 53-2225G)	
Alternative Component	**Paleontological Monitoring Needed**
Remove the existing viaduct and sidewalk and replacing with a retaining wall	Yes
Widen right shoulder from 2 feet to 10 feet	Yes
Remove the existing entire bridge structure and construct a retaining wall to support shoulder widening and concrete barrier railing Type 836	Yes
Upgrade three overhead sign structures and three overhead sign panels.	No
Upgrade crash cushions and install channelizers at the gore area.	
Upgrade four highway safety lighting.	No
Upgrade roadway signs along the connector.	No
Install rumble strips at the edge of connector's right shoulder.	No
Ave 43 Offramp Postmile 27.08 (Bridge No. 53-0985S	
Replace bridge railing on N110 at Ave 43 Ramp Bridge	No
Bridge railings will be replaced with Concrete Barrier (Type 85 Mod)	No
Existing overhang will be removed and reconstructed to accommodate new barrier reinforcement, as well as additional transverse deck bars required at post locations	No
Arroyo Seco Channel Bridge Postmile 30.1 (Bridge No. 53-0276)	
Replace bridge railing on N110 and S110 at Arroyo Seco Channel Bridge	No
The existing 6'-2" curb and railing will be removed and reconstruct portion of the deck to accommodate new barrier reinforcement, as transverse deck bars required at post locations	No

Avoidance, Minimization, and/or Mitigation Measures

PALEO MIN-1: Qualified Paleontologist and Paleontological Monitor

A Qualified Paleontologist/Paleontological Monitor must monitor the project site as described in Table 8. This individual will be responsible for the collection and salvage of fossil materials. A Caltrans Paleontological Coordinator shall review resumes and qualifications prior to construction.

PALEO MIN-2: Worker Training and On-call Paleontological Monitoring

Prior to any ground disturbances for the project, a Qualified Paleontologist would inform the worker crew about the geologic formations that may be encountered during excavations, including the types of material associated with each of those formations (i.e., fill, clay, sand, etc.). The Qualified Paleontologist would document the training in a worker training log. An example worker training log is provided in Appendix 3 of the Paleontological Evaluation Report and Paleontological Mitigation Report (August 2024).

PALEO MIN-3: If significant fossils are discovered during excavations, the trained work crew would immediately notify the Resident Engineer, who has the authority to stop all work in the immediate vicinity of the discovery/excavation per SSP-14-7.03. The Resident Engineer would immediately notify an on-call Paleontological Monitor, who would evaluate the discovery and consult with the Qualified Paleontologist, Caltrans, museum repositories, and local experts, as applicable, to determine if salvage, recovery, and curation is required per SSP 14-7.04. For significant paleontological resources, a recovery program would be initiated that would follow the general steps outlined herein, with refinements as needed based on the type and nature of the discovery.

PALEO MIN-4: All project-related excavations, including the depth, may become available and Caltrans shall provide these data as soon as possible. Most excavations are anticipated to encounter Puente Formation for the removal, constructing the new proposed earth retaining system, and widening. Therefore, paleontological monitoring is required as described in Table 8.

PALEO MIN-5: Salvage and recovery operations as well as Laboratory efforts guidance is described in the Paleontological Evaluation Report and Paleontological Mitigation Report (August 2024), which is available upon request.

PALEO MIN-6: Donation to Repository or Museum

Specimens shall be cataloged, and a complete list shall be prepared of specimens introduced into the collections or a repository by the curator of the museum or university. Adequate storage includes curation of individual specimens into the collection of a recognized, nonprofit paleontological specimen repository with a permanent curator, such as at the museum repository. A complete set of field notes, geologic maps, and stratigraphic sections must accompany the fossil collections. An example letter donating salvaged paleontological resources to an institution is provided

in Appendix 4 of the Paleontological Evaluation Report and Paleontological Mitigation Report (August 2024).

PALEO MIN-7: Preparation of Paleontological Mitigation Report

A final Paleontological Mitigation Report (PMR) shall be prepared by the project Paleontologist documenting implementation of the approved PMP. The report would adhere to Caltrans SER guidelines and would include, at a minimum, discussions of project impacts, regulatory requirements, purpose of mitigation, regional geologic context, project stratigraphy, stratigraphic and geographic distribution of paleontological resources, field and laboratory methods and procedures, fossil recovery, and paleontological significance. The report would also include geological cross sections and stratigraphic sections depicting fossil discovery localities and excavated rock units; maps showing the project location and vicinity, as well as project geology and location of discovered fossil localities; appropriate photographs or illustrations depicting monitoring conditions, field context of collecting localities, quarry maps, and laboratory activities; and appendices including an itemized listing of catalogued fossil specimens, complete descriptions of all fossil collecting localities, an explanation of report acronyms and terms, and a signed curation agreement with an approved paleontological repository.

2.3.3 Hazardous Waste/Materials

Regulatory Setting

Hazardous materials, including hazardous substances and wastes, are regulated by many state and federal laws. Statutes govern the generation, treatment, storage, and disposal of hazardous materials, substances, and waste, and also the investigation and mitigation of waste releases, air and water quality, human health, and land use.

The primary federal laws regulating hazardous wastes/materials are the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, and the Resource Conservation and Recovery Act (RCRA) of 1976 (RCRA). The purpose of CERCLA, often referred to as "Superfund," is to identify and cleanup abandoned contaminated sites so that public health and welfare are not compromised. The RCRA provides for "cradle to grave" regulation of hazardous waste generated by operating entities. Other federal laws include:

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety and Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, Executive Order (EO) 12088, *Federal Compliance with Pollution Control Standards*, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

California regulates hazardous materials, waste, and substances under the authority of the CA Health and Safety Code and is also authorized by the federal government to implement RCRA in the state. California law also addresses specific handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning of hazardous waste. The Porter-Cologne Water Quality Control Act also restricts disposal of wastes and requires cleanup of wastes that are below hazardous waste concentrations but could impact ground and surface water quality. California regulations that address waste management and prevention and cleanup of contamination include Title 22 Division 4.5 Environmental Health Standards for the

Management of Hazardous Waste, Title 23 Waters, and Title 27 Environmental Protection.

Worker and public health and safety are key issues when addressing hazardous materials that may affect human health and the environment. Proper management and disposal of hazardous material is vital if it is found, disturbed, or generated during project construction.

Affected Environment

According to the Hazardous Waste Assessment (February 2024), exposed soils along roadways may be impacted with Aerially Deposited Lead (ADL) due to historic use of leaded gasoline. ADL impacted soils are generally present up to 30 feet laterally from the edge of the paved road and to depths of two feet below ground surface (ft bgs), sometimes extending to five ft bgs.

There is a concern that the construction crew may encounter ADL contaminated soil in the process with the potential for exposure to lead. Office of Environmental Engineering (OEE) has reviewed relevant records for prior site investigations covering the project area (see Table 9) and identified the following projects:

Table 9: Prior Site Investigations Covering Project Area

HW Library ID	Task Order Contract & TO Number	Task Order Date	Route	Postmile	Total Lead Range (mg/kg)	STLC Results* (mg/L)	TCLP Results* (mg/L)
7H02	07-120851-01	December 1996	LA-110	21.4/30.5	2-19,200	0.8-1,070	N/A
7H08	07A2211-08	May 2008	LA-110	25.8/31.9	5-9,500	0.61-270	0.25-91

Note:
* STLC and TCLP data were collected only for selected soil samples.

A site investigation (SI) will be required for this project during PS&E to determine the actual concentration of lead to prepare the special provisions for handling and disposal of the contaminated soils. For estimating purposes, the top 3.5 feet of excavated soil in the unpaved areas within 30 feet from the edge of traveled way to be contaminated with ADL requiring disposal to a Class I facility as Type Z-3 soil. The contractor is required to prepare a project specific Lead Compliance Plan (LCP) to protect workers from the hazards of lead during disturbance and/or excavation of ADL impacted soil.

Replacement of crash cushions, removal of Metal Beam Guardrail (MBGR), installation of rumble strips on the shoulder, and installation of temporary construction area signs and other work that will minimally disturb unpaved soil is a concern for ADL. As stated above, the soil contains concentrations of lead that classify it as Federally-regulated Resource Conservation and Recovery Act (RCRA) hazardous (i.e., TCLP ≥ 5 milligrams per liter).

The area of contamination concept is that certain discrete areas of generally dispersed contamination (called “areas of contamination” or “AOCs”) could be equated to a RCRA landfill and that movement of hazardous wastes within those areas would not be considered land disposal and would not trigger the RCRA land disposal restrictions. The Department of Toxic Substances Control's (DTSC) allows Caltrans to use the Area of Contamination approach for minimal disturbance of soil with hazardous concentrations of lead.

For areas with hazardous waste concentrations of lead, the soil can be reused in the immediate area of disturbance and must not be transported elsewhere. A lead compliance plan (LCP) will be required to protect workers from the hazard from lead.

The regulatory databases of authorized and unauthorized releases of hazardous materials, GeoTracker and EnviroStor, maintained by the California State Water Resources Control Board and the California Department of Toxic Substances Control (DTSC), have been reviewed. These regulatory databases reviewed on February 6, 2024, identified one inactive and no active/open regulated properties within 250 feet of the project. The property identified is included in the Table 10 below:

Table 10: Properties Within 250 Feet of Project

Site Name	Address	Status	Site Type	PM	Distance (ft) from roadway median	Evaluation
National Aircraft Equipment Co.	Los Angeles, CA	Inactive – Needs Evaluation	Site Cleanup Program	25.436L	55	Low Risk – Based on the facility address and the steep terrain, the location this facility was mapped on EnviroStor is not likely to be correct. 275 Avenue 19 is located approximately 0.4 miles southeast of the mapped location on EnviroStor. Based on topography and distance from the work area, this facility is considered low risk.

Environmental Consequences

Alternative 1: No-Build (No-Action) Alternative

Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

Asbestos Containing Material (ACM)

Renovation and demolition of structures are subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP). NESHAP requires structures that will be renovated or demolished to undergo an asbestos survey to identify, quantify and classify the type of asbestos in the concrete and appurtenances. This includes demolition and renovation work on bridges, retaining walls, other structures, and appurtenances (such as utility conduits, drainpipes, gaskets, shims, mastic, adhesives, sealants, weep holes), and removal of signs that are attached to structures. Notification to the South Coast Air Quality Management District (SCAQMD) is required prior to renovation or demolition of a structure regardless of whether asbestos is detected or not.

The ACM survey can be performed concurrent with the SI for other contaminants. If the ACM survey identifies asbestos, the appropriate special provision Standard Special Provision/ Non-Standard Special Provision (SSP/NSSP 14-11.16) will be provided for the PS&E package.

The MBGR construction may have used asbestos shims between the wood posts and the metal rail. An ACM survey is required to determine if asbestos shims are present to determine the requirements for handling, management, and disposal as a hazardous waste. After the ACM survey has been completed, the appropriate Non-Standard Special Provision will be prepared and provided for the PS&E package.

Lead-Based Paint (LBP) Survey

The SCAQMD requires an asbestos survey and lead based paint survey to accompany the required notification of proposed work on structures. The Arroyo Seco Channel Bridge (Bridge No. 53-0276) and Avenue 43 Ramp Bridge (Bridge No. 53-0985S) are concrete bridges with no paint systems on the concrete structure, however bridge railing may have been painted and requires a lead-based paint survey.

Upon request from the project Engineer during Plan Specifications and Estimates (PS&E) phase, OEE will execute a Task Order (TO) for an LBP survey. This process takes approximately four months. The LBP survey must be performed by a Licensed Lead Inspector/Supervisor. Funds for removal and disposal of LBP will be included in project cost estimate if LBP is detected.

Electrical Waste

The project will remove parts from the existing electrical system, which may generate electrical waste that requires special handling and disposal as hazardous waste. Prior to starting construction, the contractor shall inspect the existing electrical equipment and components to determine if they contain any hazardous materials. The handling and disposal of electrical waste is governed by the latest Caltrans Standard Specifications section 14-11.15, Disposal of Electrical Equipment Requiring Special Handling. All electrical parts containing hazardous material shall be packaged and transported to an appropriate hazardous waste disposal facility.

Lead and Chromium in Yellow Thermoplastic and Painted Striping

Removal of the bridge structure containing yellow thermoplastic, yellow painted traffic stripe, and white traffic stripe may be performed with traffic stripe remaining on the bridge deck or by removal of the traffic stripe prior to demolition. If traffic stripe is not removed prior to demolition and remains on the bridge deck, no special requirements for handling and disposal are needed. If traffic stripe will be removed from pavement prior to demolition, SSP(s) for the removal, management, and disposal will be prepared for the PS&E package.

Existing yellow thermoplastic and yellow paint traffic stripes contain concentrations of lead and chromium at hazardous waste levels. Residue generated from yellow traffic stripe removal is considered non-RCRA (California) Hazardous Waste. The residue will require containerization, testing, transport, and disposal under a Uniform Hazardous Waste Manifest to a Class I disposal facility that must be specified in the Contractor's Work Plan.

Existing white thermoplastic traffic stripe and pavement marking contains concentrations of lead that are non-hazardous. The residue generated from the removal of existing white stripes and pavement marking is classified as non-hazardous waste. The appropriate SSP will be provided to address the hazards to workers and management of residue for the PS&E package.

If traffic stripe is removed from pavement prior to demolition, the Contractor is required to prepare a Lead Compliance Plan (LCP) to address protection of workers from exposure to the hazards from lead. The LCP shall be prepared by a certified industrial hygienist (CIH) and submitted to Caltrans for review and acceptance.

Imported Borrow

If the project requires imported borrow, the contractor is responsible to perform analytical tests to ensure that imported borrow is free of contamination per SSP 6-1.03B, *Imported Borrow*.

Aerially Deposited Lead

Aerially deposited lead (ADL) from the historical use of leaded gasoline, exists along roadways throughout California. There is the likely presence of soils with elevated concentrations of lead as a result of ADL on the state highway system right-of-way within the limits of the project alternatives. Soil determined to contain lead concentrations exceeding stipulated thresholds must be managed under the July 1, 2016, ADL Agreement between Caltrans and the California Department of Toxic Substances Control. This ADL Agreement allows such soils to be safely reused within the project limits as long as all requirements of the ADL Agreement are met.

Avoidance, Minimization, and/or Mitigation Measures

HAZ MIN-1: A site investigation (SI) will be required for this project during PS&E to determine the actual concentration of lead to prepare the special provisions for handling and disposal of the contaminated soils. For estimating purposes, the top 3.5 feet of excavated soil in the unpaved areas within 30 feet from the edge of traveled way is considered to be contaminated with ADL requiring disposal to a Class I facility as Type Z-3 soil.

HAZ MIN-2: The contractor is required to prepare a project specific Lead Compliance Plan (LCP) to protect workers from the hazards of lead during disturbance and/or excavation of ADL impacted soil.

HAZ MIN-3: For areas with hazardous waste concentrations of lead, the soil can be reused in the immediate area of disturbance and must not be transported elsewhere.

HAZ MIN-4: A lead compliance plan (LCP) will be required to protect workers from the hazard from lead.

HAZ MIN-5: Notification to the South Coast Air Quality Management District (SCAQMD) is required prior to renovation or demolition of a structure regardless of whether asbestos is detected or not. If the ACM survey identifies asbestos, the appropriate special provision (SSP/NSSP 14-11.16) will be provided for the PS&E package.

HAZ MIN-6: The LBP survey shall be performed prior to construction by a Licensed Lead Inspector/Supervisor.

HAZ MIN-7: Prior to starting construction, the contractor shall inspect the existing electrical equipment and components to determine if they contain any hazardous materials. The handling and disposal of electrical waste is governed by the latest Caltrans Standard Specifications section 14-11.15, Disposal of Electrical Equipment Requiring Special Handling. All electrical parts containing hazardous material shall be packaged and transported to an appropriate hazardous waste disposal facility.

HAZ MIN-8: If traffic stripe will be removed from pavement prior to demolition, SSP(s) for the removal, management, and disposal will be prepared for the PS&E package.

HAZ MIN-9: The appropriate SSP for lead, chromium in yellow thermoplastic, and painted striping will be provided to address the hazards to workers and management of residue for the PS&E package.

HAZ MIN-10: If traffic stripe is removed from pavement prior to demolition, the Contractor is required to prepare a Lead Compliance Plan (LCP) to address protection of workers from exposure to the hazards from lead. The LCP shall be prepared by a certified industrial hygienist (CIH) and submitted to Caltrans for review and acceptance.

HAZ MIN-11: If the project requires imported borrow, the contractor is responsible to perform analytical tests to ensure that imported borrow is free of contamination per SSP 6-1.03B, Imported Borrow.

HAZ MIN-12: Any change in the scope of work will require a Hazardous Waste Re-Assessment.

2.3.4 Air Quality

Regulatory Setting

The Federal Clean Air Act (FCAA), as amended, is the primary federal law that governs air quality while the California Clean Air Act (CCAA) is its companion state law. These laws, and related regulations by the United States Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (ARB), set standards for the concentration of pollutants in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). NAAQS and state ambient air quality standards have been established for six criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM)—which is broken down for regulatory purposes into particles of 10 micrometers or smaller (PM_{10}) and particles of 2.5 micrometers and smaller ($PM_{2.5}$), Lead (Pb), and sulfur dioxide (SO_2). In addition, state standards exist for visibility reducing particles, sulfates, hydrogen sulfide (H_2S), and vinyl chloride. The NAAQS and state standards are set at levels that protect public health with a margin of safety, and are subject to periodic review and revision. Both state and federal regulatory schemes also cover toxic air contaminants (air toxics); some criteria pollutants are also air toxics or may include certain air toxics in their general definition.

Federal air quality standards and regulations provide the basic scheme for project-level air quality analysis under the National Environmental Policy Act (NEPA). In addition to this environmental analysis, a parallel “Conformity” requirement under the FCAA also applies.

Conformity

The conformity requirement is based on FCAA Section 176(c), which prohibits the U.S. Department of Transportation (USDOT) and other federal agencies from funding, authorizing, or approving plans, programs, or projects that do not conform to State Implementation Plan (SIP) for attaining the NAAQS. “Transportation Conformity” applies to highway and transit projects and takes place on two levels: the regional (or planning and programming) level and the Project level. The proposed project must conform at both levels to be approved.

Conformity requirements apply only in nonattainment and “maintenance” (former nonattainment) areas for the NAAQS, and only for the specific NAAQS that are or were violated. U.S. EPA regulations at 40 Code of Federal Regulations (CFR) 93 govern the conformity process. Conformity requirements do not apply in unclassifiable/attainment areas for NAAQS and do not apply at all for state standards regardless of the status of the area.

Regional conformity is concerned with how well the regional transportation system supports plans for attaining the NAAQS for carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM_{10} and $PM_{2.5}$), and in some areas (although not in California), sulfur dioxide (SO_2). California has nonattainment or maintenance areas for all of these transportation-related "criteria pollutants" except SO_2, and also has a nonattainment area for lead (Pb); however, lead is not currently required by the FCAA to be covered in transportation conformity analysis. Regional conformity is based on emission analysis of Regional Transportation Plans (RTPs) and Federal Transportation Improvement Programs (FTIPs) that include all transportation projects planned for a region over a period of at least 20 years (for the RTP) and 4 years (for the FTIP). RTP and FTIP conformity uses travel demand and emission models to determine whether or not the implementation of those projects would conform to emission budgets or other tests at various analysis years showing that requirements of the FCAA and the SIP are met. If the conformity analysis is successful, the Metropolitan Planning Organization (MPO), Federal Highway Administration (FHWA), and Federal Transit Administration (FTA) make the determinations that the RTP and FTIP are in conformity with the SIP for achieving the goals of the FCAA. Otherwise, the projects in the RTP and/or FTIP must be modified until conformity is attained. If the design concept and scope and the "open-to-traffic" schedule of a proposed transportation project are the same as described in the RTP and FTIP, then the proposed project meets regional conformity requirements for purposes of project-level analysis.

Project-level conformity is achieved by demonstrating that the project comes from a conforming RTP and TIP; the project has a design concept and scope[1] that has not changed significantly from those in the RTP and TIP; project analyses have used the latest planning assumptions and EPA-approved emissions models; and in PM areas, the project complies with any control measures in the SIP. Furthermore, additional analyses (known as hot-spot analyses) may be required for projects located in CO and PM nonattainment or maintenance areas to examine localized air quality impacts.

Affected Environment

An Air Quality and Greenhouse Gas Assessment (January 2024) was prepared for this project. The study area is subtropical with very mild rainy winters and hot, sunny summers. Further the study area is more distant from the ocean and therefore warmer in the summer. On the hottest days of the year, which can also occur in September, the temperature can exceed 40 °C (104 °F). This happens when the Santa Ana winds blow from the deserts of Nevada. In May and June, the so-called "June Gloom" can occur, the fog or a cloud cover coming from the ocean. Winter is very mild, although sometimes it can get a bit cold at night.

According to the Air Quality and Greenhouse Gas Assessment (January 2024), the proposed project is located in Los Angeles County within the South Coast Air Basin (SCAB) which is in a federal nonattainment area for PM2.5 and maintenance area for

[1] "Design concept" means the type of facility that is proposed, such as a freeway or arterial highway. "Design scope" refers to those aspects of the project that would clearly affect capacity and thus any regional emissions analysis, such as the number of lanes and the length of the project.

PM10. Further, the proposed project is located in the lower desert portion of Los Angeles County and are within the boundary of the SCAB and within the jurisdiction of the South Coast Air Quality Management District (SCAQMD); and therefore, the projects must comply with the SCAQMD Fugitive Dust Implementation Rule 403 to minimize temporary emissions during construction of the project as applicable and appropriate. Table 11 presents air pollutants effects and sources. Table 12 shows State and Federal Criteria Air Pollutant Standards and Status.

Air Pollutants Effects and Sources

Table 11: Air Pollutants Effects and Sources

Pollutant	Principal Health and Atmospheric Effects	Typical Sources
Ozone (O_3)	High concentrations irritate lungs. Long-term exposure may cause lung tissue damage and cancer. Long-term exposure damages plant materials and reduces crop productivity. Precursor organic compounds include many known toxic air contaminants. Biogenic VOC may also contribute.	Low-altitude ozone is almost entirely formed from reactive organic gases/volatile organic compounds (ROG or VOC) and nitrogen oxides (NOx) in the presence of sunlight and heat. Common precursor emitters include motor vehicles and other internal combustion engines, solvent evaporation, boilers, furnaces, and industrial processes.
Carbon Monoxide (CO)	CO interferes with the transfer of oxygen to the blood and deprives sensitive tissues of oxygen. CO also is a minor precursor for photochemical ozone. Colorless, odorless.	Combustion sources, especially gasoline-powered engines and motor vehicles. CO is the traditional signature pollutant for on-road mobile sources at the local and neighborhood scale.
Respirable Particulate Matter (PM_{10})	Irritates eyes and respiratory tract. Decreases lung capacity. Associated with increased cancer and mortality. Contributes to haze and reduced visibility. Includes some toxic air contaminants. Many toxic & other aerosol and solid compounds are part of PM_{10}.	Dust- and fume-producing industrial and agricultural operations; combustion smoke & vehicle exhaust; atmospheric chemical reactions; construction and other dust-producing activities; unpaved road dust and re-entrained paved road dust; natural sources.
Fine Particulate Matter ($PM_{2.5}$)	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and produces surface soiling. Most diesel exhaust particulate matter – a toxic air contaminant – is in the $PM_{2.5}$ size range. Many toxic &other aerosol and solid compounds are part of $PM_{2.5}$	Combustion including motor vehicles, other mobile sources, and industrial activities; residential and agricultural burning; also formed through atmospheric chemical and photochemical reactions involving other pollutants including NOx, sulfur oxides (SOx), ammonia, and ROG.
Nitrogen Dioxide (NO_2)	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown. Contributes to acid rain & nitrate contamination of stormwater. Part of the "NOx" group of ozone precursors.	Motor vehicles and other mobile or portable engines, especially diesel; refineries; industrial operations.
Sulfur Dioxide (SO_2)	Irritates respiratory tract; injures lung tissue. Can yellow plant leaves. Destructive to marble, iron, steel. Contributes to acid rain. Limits visibility.	Fuel combustion (especially coal and high-sulfur oil), chemical plants, sulfur recovery plants, metal processing; some natural sources like active volcanoes. Limited contribution possible from heavy-duty diesel vehicles if ultra-low sulfur fuel not used.
Lead (Pb)	Disturbs gastrointestinal system. Causes anemia, kidney disease, and neuromuscular and neurological dysfunction. Also a toxic air contaminant and water pollutant.	Lead-based industrial processes like battery production and smelters. Lead paint, leaded gasoline. Aerially deposited lead from older gasoline use may exist in soils along major roads.

Pollutant	Principal Health and Atmospheric Effects	Typical Sources
Sulfates	Premature mortality and respiratory effects. Contributes to acid rain. Some toxic air contaminants attach to sulfate aerosol particles.	Industrial processes, refineries and oil fields, mines, natural sources like volcanic areas, salt-covered dry lakes, and large sulfide rock areas.
Hydrogen Sulfide (H_2S)	Colorless, flammable, poisonous. Respiratory irritant. Neurological damage and premature death. Headache, nausea. Strong odor.	Industrial processes such as: refineries and oil fields, asphalt plants, livestock operations, sewage treatment plants, and mines. Some natural sources like volcanic areas and hot springs.
Visibility Reducing Particles (VRP)	Reduces visibility. Produces haze. NOTE: not directly related to the Regional Haze program under the Federal Clean Air Act, which is oriented primarily toward visibility issues in National Parks and other "Class I" areas. However, some issues and measurement methods are similar.	See particulate matter above. May be related more to aerosols than to solid particles.
Vinyl Chloride	Neurological effects, liver damage, cancer. Also considered a toxic air contaminant.	Industrial processes

Table 12: State and Federal Criteria Air Pollutant Standards and Status

Pollutant	Averaging Time	State Standard [i]	Federal Standard [ii]	State Project Attainment Status	Federal Project Area Attainment Status
O_3 [iii]	1 hour	0.09 ppm [iv]	N/A		N/A
O_3	8 hours	0.070 ppm	0.070 ppm (4^{th} highest in 3 years)		
CO [v]	1 hour	20 ppm	35 ppm		
CO	8 hours	9.0 ppm	9 ppm		
CO	8 hours (Lake Tahoe)	6 ppm	N/A		N/A
PM_{10} [vi]	24 hours	50 $\mu g/m^3$ [vii]	150 $\mu g/m^3$ (expected number of days above standard < or equal to 1)		
PM_{10}	Annual	20 $\mu g/m^3$	N/A		N/A
$PM_{2.5}$ [viii]	24 hours	N/A	35 $\mu g/m^3$ [vi]	N/A	
$PM_{2.5}$	Annual	12 $\mu g/m^3$	12.0 $\mu g/m^3$		
NO_2	1 hour	0.18 ppm	0.100 ppm [ix]		
NO_2	Annual	0.030 ppm	0.053 ppm		
SO_2 [x]	1 hour	0.25 ppm	0.075 ppm (99^{th} percentile over 3 years)		
SO_2	3 hours	N/A	0.5 ppm [xi]	N/A	

Pollutant	Averaging Time	State Standard [i]	Federal Standard [ii]	State Project Attainment Status	Federal Project Area Attainment Status
SO_2	24 hours	0.04 ppm	0.14 ppm (for certain areas)		
SO_2	Annual	N/A	0.030 ppm (for certain areas)	N/A	
Pb [xii]	Monthly	1.5 µg/m^3	N/A		N/A
Pb	Calendar Quarter	N/A	1.5 µg/m^3 (for certain areas)	N/A	
Pb	Rolling 3-month average	N/A	0.15 µg/m^3 [xiii]	N/A	
Sulfates	24 hours	25 µg/m^3	N/A		N/A
H_2S	1 hour	0.03 ppm	N/A		N/A
Visibility Reducing Particles (VRP) [xiv]	8 hours	Visibility of 10 miles or more (Tahoe: 30 miles) at relative humidity less than 70 %	N/A		N/A
Vinyl Chloride [xii]	24 hours	0.01 ppm	N/A		N/A

Adapted from the California ARB Air Quality Standards chart. Greenhouse Gases and Climate Change: Greenhouse gases do not have concentration standards for that purpose. Conformity requirements do not apply to greenhouse gases.

[i] California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[ii] Federal standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3 is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

[iii] On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm. Transportation conformity applies in newly designated nonattainment areas for the 2015 national 8-hour ozone primary and secondary standards on and after August 4th, 2019 (see Transportation Conformity Guidance for 2015 Ozone NAAQS Nonattainment Areas).

[iv] ppm = parts per million

[v] Transportation conformity requirements for CO no longer apply after June 1, 2018 for the following California Carbon Monoxide Maintenance Areas (see U.S. EPA CO Maintenance Letter).

[vi] On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m^3 to 12 µg/m^3. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM10 standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[vii] µg/m^3 = micrograms per cubic meter

[viii] The 65 µg/m^3 PM2.5 (24-hr) NAAQS was not revoked when the 35 µg/m^3 NAAQS was promulgated in 2006. The 15 µg/m^3 annual PM2.5 standard was not revoked when the 12 µg/m^3 standard was promulgated in 2012. Therefore, for areas designated nonattainment or nonattainment/maintenance for the 1997 and or 2006 PM2.5 NAAQS, conformity requirements still apply until the NAAQS are fully revoked.

[ix] Final 1-hour NO2 NAAQS published in the Federal Register on 2/9/2010, effective 3/9/2010. Initial area designation for California (2012) was attainment/unclassifiable throughout. Project-level hot spot analysis requirements do not currently exist. Near-road monitoring starting in 2013 may cause re-designation to nonattainment in some areas after 2016.

[x] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

[xi] Secondary standard, the levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant rather than health. Conformity and environmental analysis address both primary and secondary NAAQS.

[xii] The ARB has identified vinyl chloride and the particulate matter fraction of diesel exhaust as toxic air contaminants. Diesel exhaust particulate matter is part of PM_{10} and, in larger proportion, $PM_{2.5}$. Both the ARB and U.S. EPA have identified lead and various organic compounds that are precursors to ozone and $PM_{2.5}$ as toxic air contaminants. There are no exposure criteria for adverse health effect due to toxic air contaminants, and control requirements may apply at ambient concentrations below any criteria levels specified above for these pollutants or the general categories of pollutants to which they belong.

[xiii] Lead NAAQS are not considered in Transportation Conformity analysis.

[xiv] In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Environmental Consequences

Alternative 1: No-Build (No-Action) Alternative

The No Build Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

According to the Air Quality and Greenhouse Gas Assessment (January 2024), per 40 CFR 93.126 published in the Federal Register (volume 73, page 4441) on January 24, 2008, Table 2, which is a list of types of projects that allows certain projects to be exempt from all emissions analyses. The proposed project is funded by the Station Highway Operation and Protection Program (SHOPP) Roadway Preservation Program under 201.2XX as Roadway and Roadside Preservation Programs. The project is identified in the latest conforming Federal Transportation Improvement Program (2023 FTIP) in a lumpsum category of LALS04 for Bridge Rehabilitation and Reconstruction; and are both deemed listed in 40 CFR 93.126 Table 2 under the subtitle “Safety” and classifications “Widening narrow pavements or reconstructing bridges (no additional travel lanes).” Therefore, pursuant to 40 CFR 93.126, the project is classified and is exempt from the requirement to determine conformity.

The Transportation Project-Level Carbon Monoxide Protocol (published by Institute of Transportation Studies, University of California, Davis, Revised December 1997) indicates that a project-level air quality analysis is not required for projects exempt pursuant to 40 CFR 93.126 because they would be screened out at Step 3.1.1 of the CO Protocol. It is unlikely that the proposed projects will result in an adverse impact to ambient CO.

Since the proposed project is exempt from the conformity requirements per 40 CFR 93.126; and they are the type of project that are not anticipated to involve a significant number of or result in a significant increase in the number of diesel vehicles or in vehicle idling. The proposed projects are expected to have neutral influence on PM10 and PM2.5 emissions; and thus, are not anticipated to be of air quality concern for PM10 and PM2.5. The proposed projects are unlikely to result in adverse impacts to ambient PM10 and PM2.5.

Further, the proposed project is not anticipated to result in any meaningful changes to traffic volumes, vehicle mix, location of the existing facility, or any other factors that would cause an increase in mobile source air toxic (MSAT) emissions impacts relative to the no-build alternative. According to the FHWA’s Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents dated January 18, 2023, no analysis or discussion of MSAT is necessary for projects exempt from conformity requirements pursuant to 40 CFR 93.126.

The proposed project is not anticipated to result in increase in operational GHG emissions as no additional roadway capacity will be added. However, per Governor's Executive Order B-30-15, Caltrans requires that construction GHG emissions be quantified. Caltrans completed an estimate of construction emissions based on construction activities data in the project initiation documents.

As a result of the above findings regional and/or project level conformity is not required.

Construction Impacts:

During construction, short-term degradation of air quality may occur due to the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other construction-related activities. Emissions from construction equipment also are expected and would include carbon monoxide (CO), nitrogen oxides (NOx), volatile organic compounds (VOCs), directly-emitted particulate matter (PM_{10} and $PM_{2.5}$), and toxic air contaminants such as diesel exhaust particulate matter. Ozone is a regional pollutant that is derived from NOx and VOCs in the presence of sunlight and heat.

Site preparation and roadway construction typically involves clearing, cut-and-fill activities, grading, removing or improving existing roadways, building bridges, and paving roadway surfaces. Construction-related effects on air quality from most highway projects would be greatest during the site preparation phase because most engine emissions are associated with the excavation, handling, and transport of soils to and from the site. These activities could temporarily generate enough PM_{10}, $PM_{2.5}$, and small amounts of CO, SO_2, NOx, and VOCs to be of concern. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site could deposit mud on local streets, which could be an added source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Construction activities for large development projects are estimated by the United States Environmental Protection Agency (U.S. EPA) to add 1.2 tons of fugitive dust per acre of soil disturbed per month of activity. If water or other soil stabilizers are used to control dust, the emissions can be reduced by up to 50 percent. The Department's Standard Specifications (Section 14) on dust minimization require use of water or dust palliative compounds and will reduce potential fugitive dust emissions during construction.

In addition to dust-related PM_{10} emissions, heavy-duty trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO_2, NOx, VOCs and some soot particulate (PM_{10} and $PM_{2.5}$) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from

traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site.

SO_2 is generated by oxidation during combustion of organic sulfur compounds contained in diesel fuel. Under California law and ARB regulations, off-road diesel fuel used in California must meet the same sulfur and other standards as on-road diesel fuel (not more than 15 ppm sulfur), so SO_2-related issues due to diesel exhaust will be minimal.

Some phases of construction, particularly asphalt paving, may result in short-term odors in the immediate area of each paving site(s). Such odors would quickly disperse to below detectable levels as distance from the site(s) increases.

Most of the construction impacts to air quality are short-term in duration and, therefore, will not result in long-term adverse conditions. Implementation of the following standardized measures, some of which may also be required for other purposes such as storm water pollution control, will reduce any air quality impacts resulting from construction activities:

- The construction contractor must comply with the Department's Standard Specifications in Section 14.

- Section 14 specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances.

- Section 14 is directed at controlling dust. If dust palliative materials other than water are to be used, material specifications are described in Section 18.

- Water or dust palliative will be applied to the site and equipment as often as necessary to control fugitive dust emissions. Fugitive emissions generally must meet a "no visible dust" criterion either at the point of emissions or at the right-of-way line, depending on local regulations.

- Soil binder will be spread on any unpaved roads used for construction purposes, and on all project construction parking areas.

- Trucks will be washed as they leave the right-of-way as necessary to control fugitive dust emissions.

- Construction equipment and vehicles will be properly tuned and maintained. All construction equipment will use low sulfur fuel as required by California Code of Regulations Title 17, Section 93114.

- A dust control plan will be developed documenting sprinkling, temporary paving, speed limits, and timely revegetation of disturbed slopes as needed to minimize construction impacts to existing communities.

- Equipment and materials storage sites will be located as far away from residential and park uses as practicable. Construction areas will be kept clean and orderly.

- ESA (Environmentally Sensitive Area)-like areas or their equivalent will be established near sensitive air receptors. Within these areas, construction activities involving the extended idling of diesel equipment or vehicles will be prohibited, to the extent feasible.

- Track-out reduction measures, such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic, will be used.

- All transported loads of soils and wet materials will be covered before transport, or adequate freeboard (space from the top of the material to the top of the truck) will be provided to minimize emission of dust (particulate matter) during transportation.

- Dust and mud that are deposited on paved, public roads due to construction activity and traffic will be promptly and regularly removed to decrease particulate matter.

- To the extent feasible, construction traffic will be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.

- Mulch will be installed or vegetation planted as soon as practical after grading to reduce windblown particulate in the area.

As discussed in the Air Quality and Greenhouse Gas Assessment (January 2024), objectionable odor would be mainly related to operation of diesel-powered equipment and off-gas emissions during road-building activities, such as paving and asphalting. SCAQMD Rule 1113 (Architectural Coating) limits the amount of VOC emissions from paving, asphalt, concrete curing, and cement coatings operations. Construction of the proposed projects shall comply with all applicable AQMD Rules. While construction equipment on site would generate some objectionable odors primarily arising from diesel exhaust, these emissions would generally be limited to the project site and would be temporary in nature.

The emissions from temporary construction activities have been estimated using the Caltrans Construction Emissions Tool (CAL-CET2021) v1.0.2. A summary output of the construction emissions calculations is described in Tables 13 and 14.

Table 13: Construction Emissions Estimates by Activity (in tons, MT for CO2e) for EA: 36930

Construction Phases	ROG	CO	NOx	PM_{10}	$PM_{2.5}$	CO_2e
Land Clearing/Grubbing	0.001	0.003	0.003	0.061	0.006	1
Roadway Excavation & Removal	0.004	0.027	0.027	0.063	0.008	6
Structural Excavation & Removal	0.006	0.017	0.030	0.062	0.008	9
Base/Subbase/Imported Borrow	0.010	0.074	0.070	0.066	0.011	16
Structure Concrete	0.026	0.081	0.128	0.008	0.008	28
Paving	0.002	0.005	0.011	0.001	0.001	2
Drainage/Environment/Landscaping	0.002	0.007	0.015	0.001	0.001	3
Traffic Signalization/Signage/Striping/Painting	0.004	0.018	0.029	0.002	0.002	12
Other Operation	0.000	0.000	0.000	0.000	0.000	0
Total	**0.054**	**0.232**	**0.314**	**0.263**	**0.045**	**78**

Note: CO2e=CO2 equivalents consisting of CO2, CH4, N2O, BC, and HFC

Table 14: Construction Emissions by Activity (in tons, MT for CO2e) Summary for EA: 37130

Construction Phases	ROG	CO	NOx	PM_{10}	$PM_{2.5}$	CO_2e
Land Clearing/Grubbing	0.002	0.010	0.011	0.061	0.007	3
Roadway Excavation & Removal	0.013	0.088	0.089	0.067	0.013	20
Structural Excavation & Removal	0.017	0.051	0.089	0.066	0.012	26
Base/Subbase/Imported Borrow	0.031	0.226	0.212	0.077	0.022	47
Structure Concrete	0.081	0.252	0.397	0.024	0.024	89
Paving	0.005	0.016	0.038	0.003	0.003	7
Drainage/Environment/Landscaping	0.007	0.021	0.046	0.003	0.003	9
Traffic Signalization/Signage/Striping/Painting	0.011	0.052	0.083	0.005	0.005	34
Other Operation	0.000	0.000	0.000	0.000	0.000	0
Total	**0.168**	**0.716**	**0.966**	**0.307**	**0.088**	**235**

Note: CO2e=CO2 equivalents consisting of CO2, CH4, N2O, BC, and HFC

Construction activities will not last for more than 5 years at one general location, so construction-related emissions do not need to be included in regional and project-level conformity analysis (40 CFR 93.123(c)(5)).

Avoidance, Minimization, and/or Mitigation Measures

AQ-1 MIN: Objectionable odors should also be minimized by conducting certain construction activities in areas at least 500 feet from the sensitive receptors as feasible. A part of review of design plans and specifications, the AQB will also coordinate for approval of a nonstandard special provision (NSSP) 14-9.05 to mandate contractors' compliance with the applicable air district rules including measures related to dust control.

GHG-1 MIN: It is recommended that the PDT review, evaluate, and consider project measures in Tables 1 and 3 of the Toolbox GHG reduction measures Toolbox (ca.gov) and that the projects commit to include all feasible and relevant measures identified from the Tables. If any measures are proposed outside the Tables in the Toolbox, the PDT shall ensure that those measures are biddable, buildable, and can be successfully implemented. All identified reduction measures shall be carried forward in the ECR.

GHG-2 MIN: Limit idling to 5 minutes for delivery and dump trucks and other diesel-powered equipment.

GHG-3 MIN: Schedule truck trips outside of peak morning and evening commute hours.

GHG-4 MIN: For improved fuel efficiency from construction equipment:

- Maintain equipment in proper tune and working condition
- Use right sized equipment for the job
- Use equipment with new technologies

GHG-5 MIN: Use alternative fuels such as renewable diesel for construction equipment whenever possible.

GHG-6 MIN: Salvage rebar from demolished concrete and process waste to create usable fill.

GHG-7 MIN: Maximize use of recycled materials (tire rubber for example).

GHG-8 MIN: Reduce construction waste. For example, reuse or recycle construction and demolition waste (reduces consumption of raw materials, reducing waste and transportation to landfill; saves costs).

GHG-9 MIN: Use recycled water or reduce consumption of potable water for construction.

Climate Change

Neither the United States Environmental Protection Agency (U.S. EPA) nor the Federal Highway Administration (FHWA) has issued explicit guidance or methods to conduct project-level greenhouse gas analysis. FHWA emphasizes concepts of resilience and sustainability in highway planning, project development, design, operations, and maintenance. Because there have been requirements set forth in California legislation and executive orders on climate change, the issue is addressed in the California Environmental Quality Act (CEQA) chapter of this document. The CEQA analysis may be used to inform the National Environmental Policy Act (NEPA) determination for the project.

2.3.5 Energy

Regulatory Setting

The National Environmental Policy Act (NEPA) (42 United States Code [USC] Part 4332) requires the identification of all potentially significant impacts to the environment, including energy impacts.

The California Environmental Quality Act (CEQA) Guidelines section 15126.2(b) and Appendix F, Energy Conservation, require an analysis of a project's energy use to determine if the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources.

Affected Environment

According to the Energy Technical Analysis Memorandum (January 2024), The proposed project is located on the northern portion of SR-110 referred to as the Pasadena Freeway and also known as the Arroyo Seco Parkway. The corridor was designated a National Scenic Byway in 2002 and was listed in the National Register of Historic Places in 2011 as the Arroyo Seco Parkway Historic District (ASPHD). The ASPHD stretches from the Four Level Interchange in Downtown Los Angeles (US 101 and SR-110) northwesterly along a scenic three lane divided parkway through the cities of Los Angeles, South Pasadena, and eventually terminating in Pasadena. The corridor still reflects the original design and character envisioned when the roadway was built in 1939.

This energy analysis addresses both direct and indirect energy consumption, which are defined as follows:

Direct Energy. In the context of transportation projects, direct energy involves all energy consumed by vehicle propulsion (e.g., automobiles, trains, airplanes). This energy consumption is a function of traffic characteristics, such as Vehicle Miles Traveled (VMT), speed, vehicle mix, and thermal value of fuel being used. Additionally, direct energy also includes the one-time energy expenditure involved in construction of the projects.

Therefore, analysis of direct energy use includes the following factors:

Direct Energy (Mobile Sources): The energy consumed by vehicle propulsion within the facility during operation of the project. However, the proposed projects are not of the type that would result in meaningful changes to traffic volumes, vehicle mix, or any other factors that would cause an increase in energy consumption. Therefore, direct energy from mobile sources from operation of the projects is not considered in this Analysis.

Direct Energy (Construction): The energy consumed by construction vehicles and equipment during construction of the project.

Indirect Energy. Indirect energy includes maintenance activities that would result in long-term indirect energy consumption by equipment required to operate and maintain the roadway. Direct energy use associated with fuel consumption during project construction was estimated using CAL-CET2021 based on total emissions and fuel/electricity consumption by individual construction phase across the project limits.

Indirect energy use is calculated based on a use factor applied to the annual VMT. Because this project's Alternative 2 is not anticipated to affect VMT (i.e., traffic volumes provided by Caltrans Traffic remain the same for the No Build and Build Alternatives), there would be no change anticipated to indirect energy use. Similarly, there would be no change to direct energy use from mobile sources.

Environmental Consequences

Alternative 1: No-Build (No-Action) Alternative

Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

This section provides results of the energy analyses for the Build Alternative and provides disclosure of potential effects from direct and indirect energy use. Project construction would involve use of on-road gasoline and diesel vehicles in various phases of construction activities. Tables 15 and 16 below provide a summary of fuel and electricity consumptions from construction activities using default diesel engines for the project.

Table 15: Annual Consumption from Construction Equipment/Vehicles for the Bridge Rail Replacement

	Fuel Consumption			Energy Consumption
	Diesel (gallons)	Gasoline (gallons)	Electricity (kWh)	Million BTU (MBTU)
Daily Average	20	6	4.780	3.6
Max. Daily Average	44	15	10.536	7.9
Annual Average	2,788	884	659.586	491.6
Project Total	**5,577**	**1,768**	**1,319.172**	**983.1**

Note: MBTU = Million British Thermal Unit

Table 16: Annual Consumption from Construction Equipment/Vehicles for Bridge Replacement

	Fuel Consumption			Energy Consumption
	Diesel (gallons)	Gasoline (gallons)	Electricity (kWh)	Million BTU (MBTU)
Daily Average	85	26	18.540	14.9
Max. Daily Average	186	61	42.454	33.0
Annual Average	8,469	2,625	1,854.041	1,485.5
Project Total	**16,939**	**5,250**	**3,708.083**	**2,971.0**

Note: MBTU = Million British Thermal Unit

Construction Impacts:

Project construction would primarily consume diesel fuel through operation of heavy-duty construction equipment in roadway and structural excavation while consumption of gasoline fuel and electricity occurs primarily from delivery of materials, hauling, worker trips, and during installation of traffic signals, signage, striping or painting activities. The construction energy consumption for the Alternative 2 represents a small demand on local and regional fuel supplies that could be easily accommodated, and this demand would cease once construction is complete. Moreover, construction-related energy consumption would be temporary and not a permanent new source of energy demand.

Operational Impacts:

Indirect energy use is consumption of energy from maintenance activities conducted on the facility, and from maintenance of vehicles using the facility. Indirect energy includes long-term energy consumption resulted from use of equipment required to operate and maintain the roadway. Indirect energy use is estimated by evaluating efforts to maintain the proposed project facility as well as the vehicles using the proposed facility.

Energy calculations for transportation projects are dependent on VMT and vehicle fuel consumption. The scope of work for the projects will not increase capacity nor relieve congestion. As such, these projects will not result in changes in traffic volumes, vehicle mix, or any other factor that would cause an increase in energy consumption of the project from that of Alternative 1. Because the VMT for Alternative 1 and Alternative 2 will remain the same, direct energy consumption from mobile sources and indirect energy consumption are also anticipated to remain unchanged between Alternative 1 and Alternative 2.

Based on the analyses, construction of the project is anticipated to consume a total of 3,954.1 MBTU from the use of those fuels.

Because Alternative 2 is not of the type to affect traffic volumes and is not anticipated to affect VMT, no change in direct energy consumption from mobile sources is anticipated. Similarly, no change to indirect energy consumption is anticipated.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures will be required due to the lack of impacts to energy consumption as a result of this project.

2.4 BIOLOGICAL ENVIRONMENT

2.4.1 Natural Communities

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. The emphasis of the section should be on the ecological function of the natural communities within the area. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value. Include any regulations relevant to the natural communities discussed (i.e., Oak Woodland protection, California Fish and Game Code, etc.).

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed below in the Threatened and Endangered Species section 2.4.5. Wetlands and other waters are also discussed below 2.4.2. Fish passage should be included under the Threatened and Endangered Species section if part of the federal consultation.

Affected Environment

According to the Natural Environmental Study (January 2024), the physical conditions in the vicinity of the N110-N5 Connector Sidehill Viaduct (Bridge Number 53-2225G) project site are relatively flat and the project site is approximately 500 feet in elevation. The Los Angeles River passes under this bridge near the Arroyo Seco Confluence. This project site is in a relatively disturbed condition. The physical conditions of the Avenue 43 Ramp Bridge (Bridge #53-0985S) are generally disturbed, and the elevation is approximately 600 feet. The physical conditions in the vicinity of the Arroyo Seco Channel Bridge (Bridge #53-0276) are urban with some open space. The approximate elevation of this bridge is 600 feet.

Environmental Consequences

Alternative 1: No-Build (No-Action) Alternative

Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

<u>Construction Impacts:</u>

Since the proposed project is confined to the prism of the roadway in highly disturbed areas, there is low potential for habitat connectivity within the project limits. The Los Angeles River Channel and Arroyo Seco Channel have some potential for habitat connectivity.

According to the USFWS IPaC Species List, there are no critical habitats which overlap the project area. Since the project is confined to the prism of the roadway and Caltrans' R/W with some easement, no critical habitats or natural communities are expected to be affected by the project. Although presence is unlikely due to the environmental setting, listed species may be impacted and disturbed by noise. Listed species that may be impacted by noise from the construction include Southwestern willow flycatcher (*Empidonax traillii extimus),* Least bell's vireo *(Vireo bellii pusillus),* Coastal California gnatcatcher *(Polioptila californica)*, and Bank swallow *(Riparia riparia)*. A "no effect' finding has been determined for these species as there is no suitable habitat.

Operational Impacts:

No operational impacts are anticipated as a result of the proposed project.

Avoidance, Minimization, and/or Mitigation Measures

BIO-1 MIN: This Division of Environmental Planning will be provided with the plans and project Specifications & Expenditures (PS&E) Package for review and comments.

BIO-2 MIN: The project Biologist must be invited to the pre-construction meeting, with one-week prior notice.

BIO-3 MIN: If the project scope should change for any reason, the Division of Environmental Planning will be notified immediately to determine whether current environmental documentation is adequate.

BIO-4 MIN: If any species of concern are observed during construction activities, all work shall immediately cease, and the Caltrans District Biologist shall be immediately notified. Work shall not resume until clearance is given by the District Biologist.

BIO-5 MIN: If access to the Los Angeles River or Arroyo Seco Channels is necessary, it is highly recommended that any work conducted below the bridge deck should be done by lowering a suspended utility boom bucket from a truck on the top of the bridge, with cherry pickers, or other methods that do not require access or impacts to the two concrete channels.

2.4.2 Wetlands and Other Waters

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (CWA) (33 United States Code [USC] 1344), is the primary law regulating wetlands and surface waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. The lateral limits of jurisdiction over non-tidal water bodies extend to the ordinary high water mark (OHWM), in the absence of adjacent wetlands. When adjacent wetlands are present, CWA jurisdiction extends beyond the OHWM to the limits of the adjacent wetlands. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers (USACE) with oversight by the U.S. Environmental Protection Agency (U.S. EPA).

The USACE issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of USACE's Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404(b)(1) Guidelines (40 Code of Federal Regulations [CFR] Part 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a "least environmentally damaging practicable alternative" (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands (EO 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, EO 11990 states that a federal agency, such as FHWA and/or the Department, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: (1) that there is no practicable alternative to the construction and (2) the proposed project includes all practicable measures to minimize harm. A Wetlands Only Practicable Alternative Finding must be made.

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCBs) and the California Department of Fish and Wildlife (CDFW). In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or the Tahoe Regional Planning Agency) may also be involved. Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities which may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request. Please see the Water Quality section for more details.

Affected Environment

According to the Natural Environmental Study (December 2023), the physical conditions in the vicinity of the N110-N5 Connector Sidehill Viaduct (Bridge Number 53-2225G) project site are relatively flat and the project site is approximately 500 feet in elevation. The Los Angeles River passes under this bridge near the Arroyo Seco Confluence. This project site is in a relatively disturbed area. The physical conditions of the Avenue 43 Ramp Bridge (Bridge #53-0985S) are generally disturbed, and the elevation is approximately 600 feet. The physical conditions in the vicinity of the Arroyo Seco Channel Bridge (Bridge #53-0276) are urban with some open space. The approximate elevation of this bridge is 600 feet.

Environmental Consequences

Alternative 1: No-Build (No-Action) Alternative

Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

Construction Impacts:

Alternative 2, regulatory agency permits may be necessary for this project since there may be impacts to “Waters of the U.S.” or “Waters of the State” as construction may require access to the Los Angeles River Channel and Arroyo Seco Channel. Most likely, a Section 404 Nationwide Permit from the Army Corps of Engineers (USACE) pursuant to the Clean Water Act may be required because there is the possibility of construction impacting the channels below the Ordinary High Water Mark (OHWM), and the channels flow ultimately to the Pacific Ocean (a 408 Permissions Permit must be obtained by Caltrans Office of Design before the 404 Permit is obtained). A Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB) pursuant to the Clean Water Act may be required because all surface water is jurisdictional, and there may be discharges to channels. A Section 1602 Streambed Alteration Agreement (SSA) from California Department of Fish and Wildlife (CDFW) pursuant to California Fish and Game Code may be required because the project may impact below the top of the bank of the channels. A determination on permits will be made at the Design phase when more information on impacts will be available.

Operational Impacts:

No operational impacts are anticipated as a result of the proposed project.

Avoidance, Minimization, and/or Mitigation Measures

BIO-6 MIN: This project must employ all appropriate Stormwater and Erosion Control Best Management Practices (BMPs), and these must be incorporated into the project specifications. Prior to the start of construction all drain inlets and outlets must be protected with BMPs to prevent construction materials and debris from entering drainages.

BIO-7 MIN: Work shall cease when the chance of rain is more than 30% and is forecasted for the future 72 hours.

BIO-8 MIN: All pollution and litter laws and regulations will be followed by the Contractor and all personnel on site.

2.4.3 Plant Species

Regulatory Setting

The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) have regulatory responsibility for the protection of special-status plant species. “Special-status” species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are provided varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). Please see the Threatened and Endangered Species section [##] in this document for detailed information about these species.

This section of the document discusses all other special-status plant species, including CDFW species of special concern, USFWS candidate species, and California Native Plant Society (CNPS) rare and endangered plants.

The regulatory requirements for FESA can be found at 16 United States Code (USC) Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et seq. Department projects are also subject to the Native Plant Protection Act, found at California Fish and Game Code, Section 1900-1913, and the California Environmental Quality Act (CEQA), found at California Public Resources Code, Sections 21000-21177.

Affected Environment

According to the Natural Environmental Study (January 2024), vegetation is largely lacking at each of the project sites, with some ruderal and native species in the vicinity.

Environmental Consequences

Alternative 1: No-Build (No-Action) Alternative

Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

Because vegetation is largely lacking at each of the project sites, each channel will not be impacted.

Avoidance, Minimization, and/or Mitigation Measures

BIO-9 MIN: The contractor shall not introduce any invasive species during construction. Methods of invasive control include washing equipment regularly, monitoring the site for invasive species, and removal of invasive species by qualified personnel when they occur.

BIO-10 MIN: There will be no vegetation removal with this project. If it is determined that vegetation must be removed, the Caltrans District Biologist will be notified two weeks prior to removal of vegetation or commencement of construction to determine if birds are nesting. Bird nesting season is normally February 1st through September 1st; however, bird nesting behavior has begun earlier than expected due to current weather patterns. In the event that nesting birds are observed, the Caltrans District Biologist should be contacted and the contractor should not conduct removal of nests until it is determined that the fledglings have left the nest. If this is not possible, coordination with the District Biologist should take place in order to minimize the risk of violating the Migratory Bird Treaty Act, and the following minimization measure put in place: a buffer of 150 ft. for songbirds and 500 ft. for raptors which must be maintained during all phases of construction during the nesting bird season. Nesting birds may not be impacted by any construction activity including noise and dust pollution along with destruction of habitat.

2.4.4 Animal Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries), and the California Department of Fish and Wildlife (CDFW) are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the federal or state Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in the Threatened and Endangered Species Section 2.4.5 below. All other special-status animal species are discussed here, including CDFW fully protected species and species of special concern, and USFWS or NOAA Fisheries candidate species.

Federal laws and regulations relevant to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

State laws and regulations relevant to wildlife include the following:

- California Environmental Quality Act
- Sections 1600 – 1603 of the California Fish and Game Code
- Sections 4150 and 4152 of the California Fish and Game Code

Affected Environment

According to the Natural Environmental Study (January 2024), there may be urban associated wildlife species within the project limits at each of the bridge sites. No animals were observed within the project area during the December 28, 2023 visit, although there were signs of day and night roosting bats at the LA-110/ Los Angeles River bridge site (Bridge Number 53-2225G) and the LA-110/Arroyo Seco Channel bridge (Bridge Number 53-0276) site, respectively. Further studies are necessary to determine if there is day roosting bats or a maternity colony on these bridges. There are over a dozen inactive swallow nests on the LA-110 Bridge (Bridge Number 53-0276) over Arroyo Seco.

There are no swallow nests on the LA-110 Bridge (Bridge Number 53-2225G) over the Los Angeles River as of December 28, 2023, however, there appears to be night roosting by bats on this same bridge as of December 28, 2023. There is the potential for bird nesting on the Avenue 43 Bridge (Bridge Number 53-0985S) over Arroyo Seco as a large nest was observed on a shelf below the bridge deck. There are over a dozen inactive swallow nests on the LA-110 Bridge (Bridge Number 53-0276) over Arroyo Seco and substantial staining from a joint indicating that bat day roosting is occurring at this bridge.

Environmental Consequences

Alternative 1: No-Build (No-Action) Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

Construction Impacts:

There may be indirect impacts from noise to nesting birds or other biological resources. Although not strong evidence of bat presence, the LA-110 Bridge over the Los Angeles River (Bridge Number 53-2225G) has the potential for night roosting, as staining was observed in corners on the underside of the bridge. The LA-110 Bridge (Bridge Number 53-0276) over the Arroyo Seco Channel has the potential for bat day roosting as substantial staining was observed from a joint under the bridge. No bat guano was observed at any of the three bridges.

There is the potential for impacts to species, namely bats and swallows.

Operational Impacts:

No operational impacts are anticipated as a result of the proposed project.

Avoidance, Minimization, and/or Mitigation Measures

BIO-11 MIN: If vegetation removal or construction should occur during the bird nesting season, surveys will be conducted to determine presence of nesting birds, and appropriate minimization measures will be implemented to comply with the Migratory Bird Treaty Act, since adherence to the Migratory Bird Treaty Act is another regulatory requirement.

BIO-12 MIN: Caltrans District Biologist must be notified two weeks prior to construction so that preconstruction surveys may be conducted, and exclusionary devices and methods may be discussed, per the following standard specification: 14-6.03 Bird Protection.

BIO-13 MIN: Caltrans anticipates day or night roosting and breeding from March 1 to October 31. Caltrans must protect bats from disturbance caused by work within the project. Bats roost inside bridges and on trees year-round but are most active between March and October. If bats are found where there will be activity, do not start work in that area until bat species have been identified and approved bat exclusionary and roosting preventive measures are in place. A Caltrans District Biologist will conduct a

survey before construction to determine the presence or absence of regulated bat species. Surveys will include monitoring bat activity, identifying types of bats present, determining appropriate buffers, and determining requirements for bat exclusionary and roosting preventive measures. Surveys may include nighttime surveys, entering bridge box girders or being lifted with equipment to check for bats in bridge joints and crevices.

BIO-14 MIN: If bats are discovered at the project site, do not use construction and lighting equipment until approved bat exclusionary and roosting preventive measures are in place. If ordered, use bat exclusionary and roosting preventive measures such as bat houses, weep-hole covers, and netting or fabric on a regular basis to prevent their occupation, or perform any combination of these.

BIO-15 MIN: It is also highly recommended that that work be conducted outside of the roosting bat season (October 31 to March 1) for the LA-110 Bridge (Bridge Number 53-2225G) over the Los Angeles River and the LA-110 Bridge (Bridge Number 53-0276) over the Arroyo Seco Channel. Hence, it is recommended that work on these two bridges should be confined to October 31 to February 1, while work on the Avenue 43 Bridge (Bridge Number 53-0985S) should avoid the nesting bird season (from September 1 to February 1). If this is not feasible, exclusionary devices for bats and birds may be necessary.

BIO-16 MIN: Construction should be limited to the period outside of the bird nesting season, which is from September 1 to February 1. If work is conducted during the nesting bird season, from February 1 to September 1, nesting bird surveys by a qualified biologist must be conducted a minimum of 3 days before commencement of work. For songbirds and raptors, if there are active nests, a buffer zone of 150 feet or 500 feet, respectively, must be established with no work in the buffer zone until the fledglings can flee the project area.

2.4.5 Threatened and Endangered Species

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 United States Code (USC) Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. This act and later amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration (FHWA) (and the Department, as assigned), are required to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a Biological Opinion with an Incidental Take Statement or a Letter of Concurrence. Section 3 of FESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

California has enacted a similar law at the state level, the California Endangered Species Act (CESA), California Fish and Game Code Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The California Department of Fish and Wildlife (CDFW) is the agency responsible for implementing CESA. Section 2080 of the California Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by CDFW. For species listed under both FESA and CESA requiring a Biological Opinion under Section 7 of FESA, the CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Game Code.

Another federal law, the Magnuson-Stevens Fishery Conservation and Management Act of 1976, was established to conserve and manage fishery resources found off the coast, as well as anadromous species and Continental Shelf fishery resources of the United States, by exercising (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species, Continental Shelf fishery resources, and fishery resources in special areas.

Affected Environment

According to the USFWS IPaC Species List (January 2024), there are no critical habitats which overlap the project area. Since the project is confined to the prism of the roadway and Caltrans' R/W with some easement, no critical habitats or natural communities are expected to be affected by the project.

Please refer to Section 2.4.1 Natural Communities.

Environmental Consequences

Alternative 1: No-Build (No-Action) Alternative

Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

There will be no impacts from the project, either direct or indirect, or permanent or temporary, that will threaten any sensitive species. There are over a dozen inactive swallow nests on the LA-110 Bridge (Bridge Number 53-0276) over Arroyo Seco. Due to the abundance of swallow nests, it is highly recommended that work be conducted outside of the nesting bird season (from September 1 to February 1) on this bridge. It is also highly recommended that that work be conducted outside of the roosting bat season (October 31 to March 1) for the LA-110 Bridge (Bridge Number 53-2225G) over the Los Angeles River and the LA-110 Bridge (Bridge Number 53-0276) over the Arroyo Seco Channel. Hence, it is recommended that work on these two bridges should be confined to October 31 to February 1, while work on the Avenue 43 Bridge (Bridge Number 53-0985S) should avoid the nesting bird season (from September 1 to February 1). If this is not feasible, exclusionary devices for bats and birds may be necessary.

Avoidance, Minimization, and/or Mitigation Measures

BIO-17 AV: If work will be conducted during nesting bird season (from February 1 to September 1) and/or conducted during roosting bat season (March 1 to October 31) for the LA-110 Bridge (Bridge Number 53-2225G) over the Los Angeles River and the LA-110 Bridge (Bridge Number 53-0276) over the Arroyo Seco Channel, exclusionary devices will be necessary. Hence, it is recommended that work on these two bridges should be confined to October 31 to February 1, while work on the Avenue 43 Bridge (Bridge Number 53-0985S) should avoid the nesting bird season (from February 1 to September 1). If this is not feasible, exclusionary devices for bats and birds may be necessary.

BIO-18 MIN: The Department will also apply dust control measures to minimize the amount of dust in the air and make air quality in the area suitable for workers and the adjacent residences and wildlife.

2.5 CUMULATIVE IMPACTS

Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of the proposed project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

The California Environmental Quality Act (CEQA) Guidelines Section 15130 describes when a cumulative impact analysis is necessary and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts under CEQA can be found in Section 15355 of the CEQA Guidelines. A definition of cumulative impacts under the National Environmental Policy Act (NEPA) can be found in 40 Code of Federal Regulations (CFR) Section 1508.7.

Affected Environment

According to the Cumulative Impact Study (September 2024), the Cumulative Impact Study was developed based on the eight-step process as set forth in Caltrans' Guidance for Preparers of Cumulative Impact Analysis (California Department of Transportation, 2005). The eight-step process is described in the following sections.

Step 1: Identify Resources to Consider in the Cumulative Impact Analysis

As specified in the Caltrans guidance, if the project would not result in a direct or indirect impact on a resource, the project would not result in a cumulative impact on that resource. This Cumulative Impact Study includes resources that would be significantly impacted by the project, as well as resources that are currently in poor or declining health or that would be at risk even if project impacts were not substantial. Those resources are identified and discussed below.

Step 2: Define the Resource Study Area

Cumulative impacts are considered within spatial (geographic) and temporal boundaries, starting from the past when the resource was first affected, to a designated point in the future (reasonably foreseeable future). The temporal boundaries for each

resource are discussed in Steps 3 and 5 below. The geographic boundaries of the resource study area (RSA) for each resource were considered by consulting with technical resource specialists. A unique RSA was identified for each resource, rather than a single consolidated study area.

Step 3: Describe the Current Condition and Historical Context of Each Resource

This step includes a description of the current health, condition, or status of the resource, and provides the historical context for understanding how the resource got to its current state. The information in the “Affected Environment” section of the project’s environmental document is used as a starting point. Recent trends affecting the resource are described to provide an understanding of the current condition of the resource.

The historical context of the resource is also provided, with the past temporal boundary varying for each resource depending on when the resource was first affected. Key patterns or activities in the past that influenced each resource are described, which are often notable changes to the region’s land use or demographic patterns.

Step 4: Identify Project Impacts That Might Contribute to Cumulative Impacts

This step includes a description of the impacts that the project alternatives would have on the resources identified in Step 1. Impacts from the project are similar among the alternatives and are therefore summarized together.

Step 5: Identify Other Current and Reasonably Foreseeable Future Actions That Affect Each Resource

This step includes identifying other current and reasonably foreseeable future actions to be considered in the cumulative impact analysis. The future temporal boundary was identified as approximately 20 years into the future based on the horizon year for the project, which is the year 2045.

While an RSA has been identified for each resource, a Cumulative Impacts Study Area (study area) was selected to identify other present or reasonably foreseeable future actions. The study area is generally bounded by State Route 2 (SR-2) in the west, United States Highway 101 (U.S. 101) in the south, Interstate 210 (I-210) in the north, and the border of the city of Los Angeles and the city of South Pasadena in the east. The boundaries of the study area were delineated by reviewing the area within a 2- to 4-mile radius of the project area, and then adjusting the boundaries based on major roadways and land use/neighborhood boundaries.

The current and reasonably foreseeable future actions used in this Cumulative Impact Study were based on information obtained from websites and information requests submitted to the cities within the study area and the County of Los Angeles, which identified approved and pending developments proposed in the study area. This information was cross-checked against files maintained by the State of California, Office of Planning and Research. Information on future transportation projects was also

researched from Caltrans, Southern California Association of Governments (SCAG), and Los Angeles Metropolitan Transportation Authority (Metro).

CEQA Guidelines Section 15130(b)(1) provides two methods for analyzing cumulative impacts. The List Approach identifies all “past, present, and probable future projects contributing to the cumulative impact,” while the Projection Approach relies upon adopted general planning or related planning documents to project the impacts of future development. For the purposes of this cumulative impact analysis, both approaches were utilized to analyze cumulative effects; the List Approach captures the major transportation and development projects within the study area, and the Projection Approach captures all of the remaining planned and programmed projects within the study area. General planning documents, such as the SCAG 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and applicable land use plans for the jurisdictions within the study area were also reviewed (Southern California Association of Governments, 2020). Projects that are located outside of the study area were screened out of the analysis.

Step 6: Assess Potential Cumulative Impacts

This step includes a description of whether the project, in combination with other actions, would affect the health of each resource or a trend associated with the resource. The discussion includes an assessment of the severity or magnitude of the cumulative impact. A conclusion is provided as to whether impacts would be cumulatively adverse or beneficial.

Step 7: Report the Results

Section 4 of this document fulfills the reporting requirements of the cumulative impact analysis. For each resource discussed in Section 4.2, the cumulative impact analysis is organized as follows, in accordance with the Caltrans guidance:

•Resource Study Area

•Current Condition and Historical Context

•Project Impacts

•Current and Reasonably Foreseeable Future Actions

•Cumulative Impacts

•Avoidance, Minimization, and/or Mitigation Measures

Step 8: Assess the Need for Mitigation

This step includes identifying mitigation for cumulatively considerable impacts. Mitigation measures for cumulative impacts may require participation from multiple resource agencies and jurisdictions and may be outside the scope of the project.

However, where feasible, recommendations are provided on future actions that could be taken to influence the sustainability of the resource.

The Cumulative Impacts Study Area (study area) was selected to identify other current or reasonably foreseeable future actions. The study area is generally bounded by SR-2 in the west, U.S. 101 in the south, I-210 in the north, and the border of the city of Los Angeles and the city of South Pasadena in the east. The boundaries of the study area were delineated by reviewing the area within a 2- to 4-mile radius of the project area, and then adjusting the boundaries based on major roadways and land use/neighborhood boundaries.

The current and reasonably foreseeable future actions are listed in Table 17. Table 17 may not be an exhaustive list of every planned project within the study area cities and communities, but the list contains projects that have the possibility of contributing to a cumulative effect because 1) the projects would result in similar permanent impacts within the project RSAs, or 2) would be constructed within the same time period as the project, and may therefore result in temporary impacts at the same time as the project construction.

As shown in Table 17 current and reasonably foreseeable actions include relevant transportation Projects that overlap with the project study area.

Table 17: Current and Reasonably Foreseeable Actions

Project ID	Project Name	Lead Agency	Location	Project Description	Status
Transportation Projects					
T-1	101 Freeway Cap	City of Los Angeles in cooperation with the Southern California Association of Governments	U.S. 101 from Hill Street to Los Angeles Street, Los Angeles, CA	The project proposes to build park space above the U.S. 101 freeway's Downtown Slot, from Hill Street to Los Angeles Street.	In Conceptual Planning Phase.
T-2	Dodgers Stadium Gondola	Los Angeles County Metropolitan Transportation Authority (Metro)	From Union Station to Dodgers Stadium, Los Angeles, CA	The proposed aerial gondola system would connect Dodgers Stadium with Union Station and would transport a maximum of 5,000 passengers per hour in each direction.	The project will now have to be considered by the L.A. City Council, Caltrans, the California Department of Parks and Recreation and the California Division of Occupational Safety and Health before it returns to the Metro board for construction approval.

Project ID	Project Name	Lead Agency	Location	Project Description	Status
T-3	LA State Historical Park Pedestrian Bridge	City of Los Angeles	1184-1198 N Broadway, Los Angeles, CA 90012	The project would construct a new pedestrian and bicycle bridge which would connect North Broadway to the park below.	In Design Phase.
T-4	Link Union Station	Metro	800 N Alameda St, Los Angeles, CA 90012	The proposed project would transform LAUS from a "stub-end tracks station" into a "run-through tracks station" with a new passenger concourse that would improve the efficiency of the station and accommodate future growth and transportation demands in the region. Key components of the proposed project include: an optimized throat with one new lead track, an above-grade passenger concourse with new expanded passageway; new passenger platforms on an elevated rail yard; new run-through tracks over the US-101 freeway; new loop track; new rail communication, signals, and tracks; and modifications and safety enhancements to US-101 and local roadways. The proposed project accommodates the planned High-Speed Rail system throughout the project limits, and on shared lead tracks north of LAUS.	Metro currently expects environmental clearances for Link Union Station to be processed in Fall 2024, with final design beginning afterward and continuing through Summer 2026. Early construction could commence for the project by Fall 2025, with heavy construction set to begin by Summer 2026.

Project ID	Project Name	Lead Agency	Location	Project Description	Status
T-5	Los Angeles Union Station Forecourt and Esplanade Improvements	Metro	800 N Alameda St, Los Angeles, CA 90012	The project includes a series of pedestrian and bicyclist improvements on Alameda St (between Cesar E. Chavez and Arcadia), Los Angeles (between the El Pueblo Plaza and Union Station), Arcadia St (between Alameda St and Spring St), and the Union Station forecourt area. The project would result in narrowing roadway, widening pedestrian and bicyclist facilities and reestablishing safe connections between Union Station and El Pueblo and surrounding communities. The project occurs on APNs 5408009900, 5408011908, 5408009903, 5408010900, 5408009904, 5408010901, 5409023934, 5409023930, 5409023941.	Metro has completed environmental review and final design for this project. Metro is currently working to identify funding for the construction phase of the project.
T-6	California High-Speed Rail Burbank to Los Angeles Project Section	California High-Speed Rail Authority	Burbank to Los Angeles	The project would provide the public with electric-powered high-speed rail service that provides access between major urban centers and connectivity to airports, mass transit systems, highway networks, and connects the Northern and Southern portions of the Statewide HSR system.	The next steps under CEQA and the National Environmental Policy Act (NEPA) will include the issuance of a Record of Decision consistent with NEPA requirements and the filing of a CEQA

Project ID	Project Name	Lead Agency	Location	Project Description	Status
					Notice of Determination.

Development Projects					
D-1	127 N. Madison	City of Pasadena	127 N Madison Avenue, Pasadena, CA 91101	The project would construct a five-story edifice featuring 48 residential units atop 2,500 square feet of ground-floor retail space.	In Planning Phase.
D-2	141 Avenue 34	City of Los Angeles	141 W Avenue 34, Los Angeles, CA 90031	The project is located on an approximately five-acre property located just south of Heritage Square Station. Plans call for razing an existing industrial complex to make way for the construction of 468 apartments - including 66 very low-income affordable units - with more than 16,000 square feet of ground-floor retail space facing Pasadena Avenue.	In Construction ends 2025.
D-3	1451 Echo Park	City of Los Angeles	1451 Echo Park Ave, Los Angeles, CA 90026	The proposed development calls for the construction of a four-story building featuring 27 apartments - including three reserved for very low-income households - atop 210 square feet of ground-floor commercial space and a 24-car subterranean parking garage.	In Design Phase

Project ID	Project Name	Lead Agency	Location	Project Description	Status
D-4	2900 San Fernando Road	City of Los Angeles	2900 N San Fernando Rd, Los Angeles, CA 90065	The project would construct a 370-unit apartment complex at 2910 W. San Fernando Road. The project, slated for a 4.8-acre site adjacent to the Glendale Freeway, would set aside 31 residential units for very low-income households.	Per an environmental study published by the City of Los Angeles, construction of the project is expected to occur over a roughly 20-month period, while the Fairfield website advertises a 2024 completion date.
D-5	83 N. Lake	City of Pasadena	83 N Lake Ave, Pasadena, CA 91101	The project is 1.4-acre site at the southwest corner of Lake Avenue and Union Street, that includes the construction of six-story edifice containing a mixture of for-sale housing and office space atop street-fronting commercial uses and three levels of basement parking.	The developer, Lake Avenue Partners LLC, is requesting a one-year extension of the Final Design Review application until August 2024 to finalize the design and to obtain permits.
D-6	Dahlia Vista Townhomes	City of Los Angeles	1525 Colorado Blvd, Los Angeles, CA 90041	The proposed project includes the demolition of an existing one-story retail/auto repair building that is approximately 2,254 square feet in size; and the construction, use and maintenance of a mixed-use development consisting of six (6) residential townhouse units, a total of 1,016 square feet of office/ retail commercial space and 3,636 square	In Design Phase

Project ID	Project Name	Lead Agency	Location	Project Description	Status
				feet of roof deck areas. The project will contain 14 vehicle parking spaces, and 12 bicycle parking spaces of which eight (8) will be long-term spaces and four (4) will be short-term spaces.	
D-7	Metropolitan Water District HQ	City of Los Angeles	1115 Sunset Blvd, Los Angeles, CA 90012	The project would redesign the former Metropolitan Water District headquarters in Victor Heights as part of a larger mixed-use project focused on "innovative design, open space and community".	Under Construction, To Be Completed in 2028
D-8	Mission Bell Mixed-Use Project (Project No. 2034-CUP, DRX, COA, VTPM)	City of South Pasadena	926-900 Fairview Ave, South Pasadena, CA 91030	The project Applicant has proposed a two- and three-story mixed-use development located at 1101-1107 Mission Street.	Environmental Document Completed in January 2020
D-9	Elysian Park Lofts	N/A	LA 110, PM 24.689	The proposed project is a mixed-use residential and commercial Project located adjacent to the LA State Historic Park and Metro Gold Line tracks. All existing on-site structures would be demolished to accommodate new 920 residential units.	Seeking Permits
D-10	Sunset & Everett Mixed-Use Development Project	City of Los Angeles	1211 Sunset Blvd, Los	The project is composed of two separate developments: 1) A mixed use residential/retail development of 204 units and 11,334 square feet of	In Design Phase

Project ID	Project Name	Lead Agency	Location	Project Description	Status
	and Everett Small Lot Subdivision		Angeles, CA 90026	retail, located primarily along Sunset Boulevard and at the corner of Sunset Boulevard and Everett Street; and 2) A small lot subdivision of six units located entirely along Everett Street.	
D-11	The Villages at the Alhambra	City of Alhambra	1000 S Fremont Ave, Alhambra, CA 91803	The project site consists of the entire block bounded by Fremont Avenue, Mission Road, Date Avenue, and Orange Street. The site is fully developed with office, warehouse, storage, utility substation, and parking lot uses. The project would construct 1,061 residential units, a 490-space parking structure, and associated open space, landscape, and vehicle/pedestrian circulation areas to accompany the existing 902,001 square feet of office space to be retained.	To Be Completed in 2028
Community Facilities Projects					
CF-1	ArtCenter College of Design Master Plan	City of Pasadena	1111 S Arroyo Pkwy, Pasadena, CA 91105	The ArtCenter has submitted one Master Plan application for a new 15-year Master Plan (the project) that encompasses development on and comprehensively identifies vision for both the Hillside Campus and the South Campus. ArtCenter would focus growth on its South Campus, while	Phase II from 2022 to 2032

Project ID	Project Name	Lead Agency	Location	Project Description	Status
				providing for infrastructure improvements and building renovations to existing buildings, additional parking, installation of photovoltaic (PV) solar cells, and modifications to campus access. The project would be implemented in two phases, with Phase I occurring between 2017 and 2022 and Phase II occurring between 2022 and 2032. It is anticipated that upon completion of the project, total enrollment within ArtCenter would increase from its current enrollment of approximately 2,000 full-time equivalent (FTE) students to a maximum of 2,500 FTE students and increase faculty/staff from 753 faculty/staff members to approx. 994 faculty/staff members between the two campuses.	
CF-2	Consolidated Correctional Treatment Facility (Men's Central Jail Replacement Project)	Los Angeles County	441 Bauchet Street, Los Angeles, CA 90012	The County proposes to reuse the existing Men's Central Jail site to develop and operate a new, not-to-exceed 4,860-bed Consolidated Correctional Treatment Facility (CCTF) with other Sheriff and support functions, totaling approximately 2.4 million square feet. At build-out, the CCTF would consist of a new correctional treatment center, new treatment facility, new inmate reception	To Be Completed in 2027

Project ID	Project Name	Lead Agency	Location	Project Description	Status
				center, new admin and support center, new public plaza, new loading/kitchen, new parking structure, court line and bus queuing area, new loop road, new tunnel connection, and new secured skyway. Based on the adopted board of supervisors policy, the proposed project would be designed to achieve at least the Leadership in Energy and Environmental design gold level of certification.	
CF-3	El Sereno Park Improvement Project	City of Los Angeles	4119 Klamath Pl, Los Angeles, CA 90032	The proposed project consists of the construction and installation of several new recreational facilities at the El Sereno Recreation Center and Park. To accommodate these new recreational facilities, the Clubhouse would be demolished. A basketball court, batting cage, and pathway/jogging path would be constructed within the existing building footprint of the Clubhouse. In addition, fitness equipment, picnic tables, benches, and drinking fountains would be installed in the paved area just north of the Clubhouse.	Under Construction
CF-4	Dodger Stadium Improvements	N/A	LA 110, PM 24.76	Proposed improvements to the Dodger Stadium include accessibility, pedestrian circulation, security, guest	Planning Stage

Project ID	Project Name	Lead Agency	Location	Project Description	Status
				services, patron amenities, and sponsorship signage.	
CF-5	Pasadena Non-Potable Water Project	City of Pasadena	City of Pasadena, CA	The purpose of the Pasadena Water and Power (PWP) Pasadena Non-Potable Water Project is to meet portion of PWP's non-potable water needs using local water sources. The proposed project involves construction and operation of a new non-potable water distribution system to deliver water from three local supply source: (1) recycled water produced by the Los Angeles/Glendale Water Reclamation Plant, (2) surface water inflows from two existing tunnels, and (3) water from Arroyo Seco stream, to customers within the service areas of PWP, Lincoln Avenue Water Company, Foothill Municipal Water District, and California American Water Company for landscape irrigation, industrial cooling, and other non-potable uses. The project consists of six major construction phases. The first phase will be evaluated at a project-level of detail in the EIR.	The state application is still under review pending approval of the wastewater change petition filed by the City of Glendale. SWRCB will not complete the review of PWP application until the petition is approved.

Environmental Consequences

Utilities/Emergency Services

Resource Study Area

The RSA for utilities and emergency services includes the area within a 0.5-mile buffer around the project area. The RSA includes the buildings, roadways, and other community features that could be affected by direct and/or indirect impacts from the project. The RSA includes the city of Los Angeles and the city of South Pasadena.

Current Condition and Historical Context

Utilities and service systems crossing or adjacent to the project area would be identified as the project design is finalized.

Project Impacts

Alternative 1: No-Build (No-Action) Alternative

Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

Utilities

The project would not result in a substantial increase in employment or population density requiring the provision of new or additional utility service systems.

Project-related ground disturbance may require intermittent disruptions of existing utilities and the relocation or abandonment of existing utilities for the Alternative 2. Utility conflicts and TCEs required for utility relocations would be identified as the project design is finalized.

Because utility relocations may be required during construction, the project could potentially contribute to temporary cumulative impacts on utilities. If protection or relocation of existing utilities is required, early coordination and communication with the utility service provider would take place to ensure there is no disruption of services, and existing utilities would be restored following construction activities.

Emergency Services

The project would not require any ROW acquisitions from emergency service facilities in the RSA and would not result in a substantial increase in employment or population density requiring the provision of new or additional emergency service facilities.

Construction of the Alternative 2 may require temporary lane closures, ramp closures, and rerouting of traffic, which could result in traffic delays. Traffic delays could affect the ability of fire, law enforcement, and emergency service providers to meet response-time goals. Because emergency service providers could experience traffic delays during

construction, the project would contribute to temporary cumulative impacts on emergency services. Early coordination, including notification of lane closures and detours, would be conducted with local emergency service providers to minimize potential delays or disruptions.

Alternative 2 would not result in the acquisition or displacement of any emergency service facilities within the RSA. Alternative 2 would not increase crime rates or the demand for additional emergency services because project improvements within the existing transportation facility would not contribute to substantial population growth in the RSA. Rather, the project is anticipated to improve safety along the Arroyo Seco corridor and could thereby reduce demands for emergency services. The proposed project is anticipated to provide benefits to emergency services due to increased safety. Therefore, there would be no cumulative impact.

Current and Reasonably Foreseeable Future Actions

The current and reasonably foreseeable future actions considered in this analysis are presented in Table 17.

Utilities

Specific utility impacts that would result from relevant projects in the RSA were not readily available for all of the projects. Other development projects may require additional utility services to accommodate proposed development. Therefore, these relevant projects may contribute to permanent adverse cumulative impacts on utilities.

Projects that would be constructed within the project construction period could result in temporary construction impacts from ground disturbance activities, requiring the temporary relocation or abandonment of existing utilities, and intermittent disruption to utilities. The proposed project is anticipated to provide benefits to emergency services due to increased safety. Therefore, there would be no cumulative impact.

Emergency Services

Specific emergency services impact that would result from relevant transportation projects in the RSA were not readily available for all of the projects. These projects are anticipated to reduce existing and future congestion and address forecasted growth in the region, such that impacts on emergency service ratios and response times would be avoided. The proposed project is anticipated to provide benefits to emergency services due to increased safety. Therefore, there would be no cumulative impact.

The development projects listed in Table 17 and all other planned and programmed Projects in the RSA would be consistent with adopted land use plans and policies related to emergency services. In addition, these projects would be developed in accordance with projected growth such that impacts on emergency service ratios would be avoided. Therefore, these relevant development projects would not contribute to permanent cumulative impacts on emergency services.

The relevant projects that would be constructed within the project construction period could result in temporary construction impacts from temporary lane closures, ramp closures, rerouting of traffic, and other activities that could result in traffic delays and

affect emergency response times. Therefore, these relevant projects may contribute to temporary cumulative impacts on emergency services.

Cumulative Impacts

Utilities

As discussed above, the project would not result in permanent impacts on utility system operations from inducing employment or population growth requiring the provision of new or additional utility service systems. Project construction could require the temporary relocation or abandonment of existing utilities under the Alternative 2.

Project construction would include compliance with Caltrans standards and coordination with utility providers to minimize temporary construction impacts. In addition, utilities would be restored upon completion of utility relocation activities. With compliance with Caltrans standards and coordination with utility providers, the project's contribution to temporary cumulative impacts on utilities would be substantially minimized. In addition, the project's contribution to temporary cumulative impacts would cease following construction.

Emergency Services

The results of this analysis indicate that past, current, and reasonably foreseeable actions, in combination with the project, are cumulatively impacting emergency services. As discussed above, the project would not result in permanent impacts on emergency services from ROW acquisitions, or from inducing employment or population growth requiring the provision of new or additional emergency services. The project would improve safety along the Arroyo Seco corridor and could thereby reduce demands for emergency services, such that impacts on emergency service ratios and response times would be avoided. Therefore, the project's contribution to permanent cumulative impacts on emergency services would be minimized with the implementation of minimization measures discussed throughout the environmental document.

Construction activities could result in traffic delays that could affect the ability of fire, law enforcement, and emergency service providers to meet response-time goals. However, project construction would include implementation of a transportation management plan and coordination with emergency service providers to minimize temporary construction impacts. With implementation of these measures, the project's contribution to temporary cumulative impacts on emergency services would be substantially minimized. In addition, the project's contribution to temporary cumulative impacts would cease following construction.

Traffic and Transportation/Pedestrian and Bicycle Facilities

Resource Study Area

The RSA for traffic, transportation, and pedestrian and bicycle facilities includes Arroyo Seco Parkway, from N/110-N5 Connector Sidehill Viaduct PM 25.34 in the city of Los Angeles to Arroyo Seco Channel Bridge PM 30.1 in the city of South Pasadena. The RSA is in the cities of Los Angeles, Pasadena, and South Pasadena.

Current Condition and Historical Context

The major freeways in the RSA include Arroyo Seco Parkway, which is a major 31.8 mile long north-south transportation route that is used primarily for interregional and intraregional travel of people and carrying of goods throughout Los Angeles County.

Many of the major arterials in the RSA provide a similar function to the freeway, including interregional and intraregional travel. The arterials are also utilized as a bypass route to the congested freeways. Cities in the RSA are considered built-out; therefore, widening roadways to alleviate congestion or provide alternate methods of transportation may not be feasible.

Existing and planned pedestrian and bicycle facilities are on surface streets and other paths in the cities within the RSA. Several regionally significant Class I bicycle paths are in the RSA, including the Arroyo Seco Bike Path that generally parallels Arroyo Seco Parkway and crosses the RSA at several locations.

The transportation plans governing the RSA include long-term goals to improve the existing circulation system by improving existing transportation infrastructure and encouraging alternative modes of transportation.

Project Impacts

Alternative 1: No-Build (No-Action) Alternative

Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

The proposed project does not impact the operations of the roadway. Temporary impacts may occur during construction for example, one permanent (during construction) lane closure as well as 55 hour /extended weekend closures. No substantial traffic impacts anticipated. Any temporary impacts will be minimized with the implementation of minimization measures TR-1, TR-2, and TR-3 detailed in the environmental document.

Further, the proposed project is located entirely on a facility where bicyclists and pedestrians are legally prohibited and the project does not involve a shared use path, pedestrian/bicycle structure.

Current and Reasonably Foreseeable Future Actions

The current and reasonably foreseeable future actions considered in this analysis are presented in Table 17.

These relevant projects have the potential to result in temporary impacts on traffic and transportation/pedestrian and bicycle facilities if these projects would require temporary freeway mainline and ramp lane closures, long-term closures of on/off ramps and arterial streets, and temporary closures of pedestrian and bicycle facilities. These closures could result in traffic delays, increased congestion, and restrictions on pedestrian and bicycle access in the RSA. Therefore, these relevant projects could contribute to temporary adverse cumulative impacts on traffic and transportation/pedestrian and bicycle facilities. However, the objective of transportation projects is typically to enhance the user experience and improve safety and traffic conditions.

Cumulative Impacts

The results of this analysis indicate that past, current, and reasonably foreseeable actions, in combination with the project, are contributing to permanent beneficial cumulative impacts on traffic and transportation/pedestrian and bicycle facilities in the RSA.

During construction, the project would result in reduced access and increased congestion from temporary construction traffic and staging. However, lane closures would take place in a specific sequence to minimize impacts to motorists, and a traffic handling plan would also be developed to guide the movement of traffic through the work zones. In addition, a variety of options would be implemented to minimize impacts as described in the environmental document. With implementation of these measures, the project's contribution to temporary cumulative impacts on traffic and transportation/pedestrian and bicycle facilities would be substantially minimized. In addition, the project's contribution to temporary cumulative impacts would cease following construction.

Visual/Aesthetics

Resource Study Area

The RSA includes Arroyo Seco Parkway, from N/110-N5 Connector Sidehill Viaduct PM 25.34 in the city of Los Angeles to Arroyo Seco Channel Bridge PM 30.1 in the city of South Pasadena. The RSA is in the cities of Los Angeles, Pasadena, and South Pasadena.

Current Condition and Historical Context

The Arroyo Seco Parkway is a National Scenic Byway (NSB) and a State Historic Parkway. NSBs are a federally designated class of scenic resources. The Arroyo Seco Parkway mirrors the original design and character that was built with narrow lane widths, absence of shoulders, and short on- and off- ramps that no longer meet current standards for high-speed driving.

Most views from the RSA include transportation infrastructure (e.g., roadways and vehicle lanes), trees, grassy areas, hillsides, distant mountains, and bridge architecture. Additionally, the RSA includes the Arroyo Seco channel, adjacent parklands such as Sycamore Grove, overcrossings and undercrossings, and all ramps.

Project Impacts

Alternative 1: No-Build (No-Action) Alternative

Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

The proposed project will be compatible with the existing visual character of the corridor. The new retaining wall and barriers will display similar scale and line as the removed sidehill viaduct bridge and bridge barriers. Further, the proposed project will alter the visual quality of the corridor slightly at the SR-110 and I-5 connector ramp. The existing sidehill viaduct bridge piers and footings will be replaced by retaining wall. The aesthetic treatment on the retaining wall and barrier will retain similar character as existing and nearby walls and barriers. The arcs between the piers are replaced with indented textured wall. The detail of the structures might have changed, but at a distance the cohesiveness of all infrastructures will remain intact.

At Ave 43 and the Arroyo Seco Bridge, the visual change will be low since the replacement bridge barrier will have similar material and see thru openings as the existing bridge barriers.

Review of the project site and the proposed design indicates the project will result in minor impacts to the visual environment. The retaining wall that replaces the existing sidehill viaduct bridge will expose a new wall face on the hillside instead of the existing bridge piers and arches. The new retaining wall will be visually compatible with the surrounding environment as there is an existing retaining wall just above the removed bridge. A few unhealthy trees, between the new retaining wall and the flood control channel wall will be removed, which will result in vegetation loss. There is no plan to replace the trees due to lack of safe access and space for maintenance. The overall visual change and visual sensitivity to all three project sites and the Arroyo Seco Corridor will be low to moderate due to the proposed improvements are replacement features and are not new features.

Current and Reasonably Foreseeable Future Actions

The current and reasonably foreseeable future actions considered in this analysis are presented in Table 17.

Cumulative Impacts

The results of this analysis indicate that past, current, and reasonably foreseeable actions, in combination with the project, have adversely cumulatively impacted visual/aesthetics in the RSA. Past projects on the Arroyo Seco Parkway have made incremental changes in signage, lighting, and landscaping. The project would repair some past efforts that diluted the cohesive look of the parkway. Because of the nature of the project, it would not result in temporary and permanent cumulative impacts on visual/aesthetic resources.

Cultural Resources

Resource Study Area

The RSA for cultural resources is defined as the Area of Potential Effects (APE). The APE was established as the area of direct and indirect effect. All direct and permanent and temporary project effects, as well as potential indirect effects would occur within the boundaries delineated on the APE Map. The Direct APE is defined as the areas where physical impacts will occur. It includes both the horizontal and vertical areas associated with ground disturbing activities.

Current Condition and Historical Context

The APE was established as four (4) discontiguous locations corresponding to each of the three project bridges and one overhead sign location. Most of the APE conforms to the limits of each of the bridges, while also expanding within the right-of-way to include other areas of direct impact for various project activities.

The APE consists of one boundary which contains both the direct and indirect effects of the project's activities. The vertical APE above ground extends approximately 30 feet to the top of the overhead sign structure and below the surface to a maximum depth of 15 feet for the cast-in-drilled-hole (CIDH) soldier piles to support to retaining wall. The vertical APE also extends from the bridge deck down to the bottom of the Arroyo Seco Flood Control Channel (ASFCC) at two locations (Avenue 43 Offramp and the Arroyo Seco Channel Bridge) to provide temporary access for retrieval of lost tools or items.

Further, resources identified by the records search included one prehistoric site and one historic-age isolated find. The prehistoric site consisted of one human burial covered by a rock cairn (P-19-003057/CA-LAN-3057) and the historic isolate consisted of a single bottle (P-19-101374). Neither of these resources are within the current APE.

Caltrans archaeologist Kim Harrison performed a search of the Caltrans Cultural Resource Database (CCRD), District files, photographs, and maps, with negative results.

On October 23, 2023, Caltrans requested a search of the Native American Heritage Commission (NAHC) Sacred Lands File and received a positive response on November 18, 2023. Native American consultation was initiated on October 11, 2023, and October 23, 2023, under Section 106 and Assembly Bill 52 (AB52). Additional and follow up consultation notifications were sent on November 18, 2023, to individuals identified in the contact list provided by the NAHC. To date, representatives of three tribes have requested consulting party status. Concerns from tribal representatives were focused on concerns for a repatriated burial located outside the current project APE.

Project Impacts

Alternative 1: No-Build (No-Action) Alternative

Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

When Alternative 2 is analyzed within the context of the entire district, using context sensitive designs (the three types of bridges rails and retaining wall aesthetic treatment) and the large majority of contributing resources still retaining high levels of integrity and original bridge rails, the overall effects to the ASPHD are considered Not Adverse and that there will be No Effect to the ASFCC.

Current and Reasonably Foreseeable Future Actions

The current and reasonably foreseeable future actions considered in this analysis are presented in Table 17.

Cumulative Impacts

The results of this analysis indicate that past, current, and reasonably foreseeable actions, in combination with the project, are not cumulatively impacting cultural resources. As described in the project Impacts above. Therefore, the project would not contribute to permanent and temporary adverse cumulative impacts to cultural resources.

Geology/Soils/Seismic/Topography

Resource Study Area

The RSA includes Arroyo Seco Parkway, from N/110-N5 Connector Sidehill Viaduct PM 25.34 in the city of Los Angeles to Arroyo Seco Channel Bridge PM 30.1 in the city of South Pasadena. The RSA is in the cities of Los Angeles, Pasadena, and South Pasadena.

Current Condition and Historical Context

The project is located within the transition zone between the northwest-southeast-trending Peninsular Ranges physiographic/geologic province on the south, and the east-west-trending Transverse Rages on the north. The project area is situated within Arroyo Seco Canyon. The RSA is underlain by late-Pleistocene-aged young alluvium (unconsolidated and friable stream-deposited silt, sand, and gravel) and the canyon walls near the bridge are composed of Puente Formation bedrock (shale, siltstone, and sandstone). The nearest mapped bedrock outcrops from Avenue 43 Off- and On-Ramp over Arroyo Seco Channel are approximately 1,000 feet southeast of the project area. The nearest mapped bedrock outcrops from Via Marisol are approximately 200 feet southeast of the Project area and 700 feet north of the project area. This bedrock is classified as Topanga Formation (well-bedded siltstone with interbedded sandstone, shale, and chert).

The RSA is located within seismically active Southern California and the project is anticipated to be affected by ground motions from seismic events. Though not located in any fault zones, the RSA is in close proximity to many substantial fault lines that run throughout the region and are capable of producing seismic activity along the project alignment. The RSA is prone to smaller magnitude earthquakes, while the potential for large magnitude earthquakes would be rare. In the event of a substantial earthquake from a nearby fault, strong ground shaking would be anticipated within the RSA. There is also potential for surface rupture in the RSA.

Groundwater elevation is approximately the same as the Arroyo Seco Channel invert, or elevation 366 feet.

Project Impacts

Alternative 1: No-Build (No-Action) Alternative

Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

During project operation, the project features could be affected by ground motion, liquefaction, landslides, and possible ground rupture. However, the project would be designed and constructed to current standards, including seismic design standards, and would include consideration of liquefaction potential, settlement, landslide, and scour in the design of foundation and retaining systems, and structure/facilities within or nearby landslide prone areas. In addition, any structures would be designed and constructed in accordance with the latest Caltrans design guidelines based on site-specific field investigations.

Project construction could require grading activities, vegetation clearing, compacting, and excavation. Grading activities would expose subsurface soils, which may increase the possibility of soil erosion or landslides in landslide-prone areas. The project area may also be subject to seismic activity during construction. Seismic shaking creates opportunities for liquefaction and settlement and slope instability at natural and temporary slopes.

Current and Reasonably Foreseeable Future Actions

The current and reasonably foreseeable future actions considered in this analysis are presented in Table 17. All of these projects would likely require grading activities, vegetation clearing, compacting, and excavation, which may increase the potential for erosion, landslides, slope instability from seismic shaking, and soil expansion/collapse.

Cumulative Impacts

The results of this analysis indicate that past, current, and reasonably foreseeable actions, in combination with the project, are cumulatively impacting geology, soils, seismic, and topography resources. As described above, the project would be designed and built to current standards; therefore, the project would not contribute to permanent adverse cumulative impacts on geology, soils, seismicity, or topography.

Construction activities for the project would increase the potential for erosion, landslides, slope instability from seismic shaking, and soil expansion/collapse. The potential for landslides would be considered when planning grading or excavation activities in areas known to be prone to landslides.

In addition, safe work practices in accordance with Caltrans and the California Division of Occupational Safety and Health Administration would be implemented to minimize the risk to workers during construction. Finally, BMPs and standard measures to address construction impacts would include temporary soil stabilization and sediment control BMPs. With implementation of BMPs and compliance with current standards, the

project's contribution to cumulative temporary impacts related to geology/soils/seismic/topography would be substantially minimized. In addition, the project's contribution to temporary cumulative impacts would cease following construction.

Paleontology

Resource Study Area

The RSA includes Arroyo Seco Parkway, from N/110-N5 Connector Sidehill Viaduct PM 25.34 in the city of Los Angeles to Arroyo Seco Channel Bridge PM 30.1 in the city of South Pasadena. The RSA is in the cities of Los Angeles, Pasadena, and South Pasadena.

Project Impacts

Alternative 1: No-Build (No-Action) Alternative

Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

Any impact on paleontological resources would be permanent and irreversible. The project construction activities will impact paleontologically sensitive geologic units when previously undisturbed sediments or bedrock underlying a project are excavated, augured, trenched, graded, or crushed. This can result in impacts to fossils by destroying them, displacing them, or otherwise altering them in such a way that their scientific value is lost. The Alternative 2 project footprint lies within geologic units with a high paleontological sensitivity and significance, and excavation is expected to extend to significant members of the Puente Formation.

Current and Reasonably Foreseeable Future Actions

The current and reasonably foreseeable future actions considered in this analysis are presented in Table 17.

If paleontological resources are encountered during the construction period, work in the area would immediately halt until a qualified paleontologist is notified and examines the resource. Once cleared, construction would resume.

Cumulative Impacts

The project could impact paleontological resources during earth-moving activities. However, the project would include implementation of measures providing for recovery and treatment of any scientifically important fossil remains exposed by those earth-moving activities.

Hazardous Waste or Materials

Resource Study Area

The RSA includes Arroyo Seco Parkway, from N/110-N5 Connector Sidehill Viaduct PM 25.34 in the city of Los Angeles to Arroyo Seco Channel Bridge PM 30.1 in the city of

South Pasadena. The RSA is in the cities of Los Angeles, Pasadena, and South Pasadena.

The RSA is located within an existing transportation corridor surrounded by urban development, and is adjacent to a variety of land uses, including residential, commercial, industrial, public, and recreational uses.

Current Condition and Historical Context

Three recognized environmental condition (REC) sites were identified within the RSA. The Former Welch's Uniform Facility Voluntary Cleanup Program (VCP) Site (3505 Pasadena Avenue, Los Angeles) is approximately 60 feet south of the project area. This site is undergoing post-remedial action monitoring. Trichloroethene has primarily impacted soil and groundwater at this site. Tosco, 76 Station is a Leaking Underground Storage Tank Site (475 Avenue 60 South, Los Angeles) and is located approximately 400 feet southeast of SW-610. Groundwater monitoring was performed at the site in April 2020. Santa Fe/Arroyo Seco Railroad Bridge is the third REC site, located approximately 1,200 feet south of Avenue 63 in Los Angeles, and is a VCP Site.

One plugged oil well was identified within the RSA and is located approximately 590 feet south of the project area at the corner of Artesian Street and West Avenue 33 in Los Angeles. One oil pipeline operated by Plains West Coast Pipeline crosses the project area at West Avenue 26 in Los Angeles, California. No hazardous incidents were reported for this pipeline where it crosses the project area.

Project Impacts

Alternative 1: No-Build (No-Action) Alternative

Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

Asbestos Containing Material (ACM)

Renovation and demolition of structures are subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP). NESHAP requires structures that will be renovated or demolished to undergo an asbestos survey to identify, quantify and classify the type of asbestos in the concrete and appurtenances. This includes demolition and renovation work on bridges, retaining walls, other structures, and appurtenances (such as utility conduits, drainpipes, gaskets, shims, mastic, adhesives, sealants, weep holes), and removal of signs that are attached to structures. Notification to the South Coast Air Quality Management District (SCAQMD) is required prior to renovation or demolition of a structure regardless of whether asbestos is detected or not. Upon receipt of a written request, OEE will execute a TO for the ACM survey.

The ACM survey can be performed concurrent with the SI for other contaminants. If the ACM survey identifies asbestos, the appropriate special provision (SSP/NSSP 14-11.16) will be provided for the PS&E package.

The MBGR construction may have used asbestos shims between the wood posts and the metal rail. An ACM survey is required to determine if asbestos shims are present to

determine the requirements for handling, management, and disposal as a hazardous waste. After the ACM survey has been completed, the appropriate NSSP will be prepared and provided for the PS&E package.

Lead-Based Paint (LBP) Survey

The SCAQMD requires an asbestos survey and lead based paint survey to accompany the required notification of proposed work on structures. The Arroyo Seco Channel Bridge (Bridge No. 53-0276) and Avenue 43 Ramp Bridge (Bridge No. 53-0985S) are concrete bridges with no paint systems on the concrete structure, however bridge railing may have been painted and requires a lead-based paint survey.

Upon request from the project Engineer during PS&E phase, OEE will execute a TO for an LBP survey. Please allow four months in the project schedule to complete the LBP survey and report. The LBP survey must be performed by a Licensed Lead Inspector/Supervisor. Funds for removal and disposal of LBP need to be included in project cost estimate if LBP is detected. Include cost for the LBP survey for the bridges and railing, NESHAP notification fee to SCAQMD, and removal management, packaging, storage, transport, and disposal of LBP as hazardous waste.

Electrical Waste

The project will remove parts from the existing electrical system, which may generate electrical waste that requires special handling and disposal as hazardous waste. Prior to starting construction, the contractor shall inspect the existing electrical equipment and components to determine if they contain any hazardous materials. The handling and disposal of electrical waste is governed by the latest Caltrans Standard Specifications section 14-11.15, Disposal of Electrical Equipment Requiring Special Handling. All electrical parts containing hazardous material shall be packaged and transported to an appropriate hazardous waste disposal facility.

Lead and Chromium in Yellow Thermoplastic and Painted Striping

Removal of the bridge structure containing yellow thermoplastic, yellow painted traffic stripe, and white traffic stripe may be performed with traffic stripe remaining on the bridge deck or by removal of the traffic stripe prior to demolition. If traffic stripe is not removed prior to demolition and remains on the bridge deck, no special requirements for handling and disposal are needed. If traffic stripe will be removed from pavement prior to demolition, SSP(s) for the removal, management, and disposal will be prepared for the PS&E package.

Existing yellow thermoplastic and yellow paint traffic stripes contain concentrations of lead and chromium at hazardous waste levels. Residue generated from yellow traffic stripe removal is considered non-RCRA (California) Hazardous Waste. The residue will require containerization, testing, transport, and disposal under a Uniform Hazardous Waste Manifest to a Class I disposal facility that must be specified in the Contractor’s Work Plan.

Existing white thermoplastic traffic stripe and pavement marking contains concentrations of lead that are non-hazardous. The residue generated from the removal of existing white stripes and pavement marking is classified as non-hazardous waste.

The appropriate SSP will be provided to address the hazards to workers and management of residue for the PS&E package.

If traffic stripe is removed from pavement prior to demolition, the Contractor is required to prepare a Lead Compliance Plan (LCP) to address protection of workers from exposure to the hazards from lead. The LCP shall be prepared by a certified industrial hygienist (CIH) and submitted to Caltrans for review and acceptance. For the cost estimate, please refer to the latest Contract Cost Database at http://sv08data.dot.ca.gov/contractcost/.

Imported Borrow

If the project requires imported borrow, the contractor is responsible to perform analytical tests to ensure that imported borrow is free of contamination per SSP 6-1.03B, Imported Borrow.

Aerially Deposited Lead

Aerially deposited lead (ADL) from the historical use of leaded gasoline, exists along roadways throughout California. There is the likely presence of soils with elevated concentrations of lead as a result of ADL on the state highway system right-of-way within the limits of Alternative 2. Soil determined to contain lead concentrations exceeding stipulated thresholds must be managed under the July 1, 2016, ADL Agreement between Caltrans and the California Department of Toxic Substances Control. This ADL Agreement allows such soils to be safely reused within the project limits as long as all requirements of the ADL Agreement are met.

Current and Reasonably Foreseeable Future Actions

The current and reasonably foreseeable future actions considered in this analysis are presented in Table 17.

Cumulative Impacts

As discussed above, project construction could result in soil contamination and unknown hazardous contamination. Further site investigations would be required in the next phase of the project. To ensure the safety of construction workers and the public, any property acquired as part of this project would be required to be safe and free of hazardous waste prior to beginning construction. Therefore, the project would not increase public health risks related to hazardous wastes and materials in the short term and would decrease these risks in the long term.

Contaminated soil or groundwater may be encountered during project construction. Construction workers would be required to take appropriate precautions to minimize their exposure, which includes using the appropriate protective clothing and equipment. With implementation of avoidance and minimization measures identified in the environmental document, the project's contribution to temporary adverse cumulative impacts related to hazardous waste or materials would be substantially minimized. In addition, the Project's contribution to temporary cumulative impacts would cease following construction.

Air Quality

Resource Study Area

The RSA includes Arroyo Seco Parkway, from N/110-N5 Connector Sidehill Viaduct PM 25.34 in the city of Los Angeles to Arroyo Seco Channel Bridge PM 30.1 in the city of South Pasadena. The RSA is in the cities of Los Angeles, Pasadena, and South Pasadena.

According to the Air Quality and Greenhouse Gas Assessment (January 2024), the proposed project is located in Los Angeles County within the South Coast Air Basin (SCAB) which is in a federal nonattainment area for PM2.5 and maintenance area for PM10. Further, the proposed project is located in the lower desert portion of Los Angeles County and are within the boundary of the SCAB and within the jurisdiction of the South Coast Air Quality Management District (SCAQMD); and therefore, the projects must comply with the SCAQMD Fugitive Dust Implementation Rule 403 to minimize temporary emissions during construction of the project as applicable and appropriate. Table 6 presents air pollutants effects and sources. Table 8 shows State and Federal Criteria Air Pollutant Standards and Status.

The RSA is located in a built-out area. The health of air quality changes with emissions levels in the area surrounding the project. Overtime, the air quality in the basin has been substantially degraded by short- and long-term emissions of pollutants and dust generated by a wide variety of land uses, including agricultural, urban, industrial, and manufacturing uses.

Current Condition and Historical Context

Air quality regulation in the SCAB is administered by the South Coast Air Quality Management District, a regional agency that maintains ambient air quality monitoring stations throughout the basin. The following air quality information briefly describes the various types of pollutants that are monitored within the vicinity of the project study area:

•Carbon Monoxide (CO): The project is located within an attainment area for state CO standards and an attainment-maintenance area for federal CO standards.

•Ozone (O3): The project is located within a nonattainment area for state O3 standards and a nonattainment-extreme area for federal standards.

•Nitrogen Dioxide (NO2)-1Hour: The project is located within an attainment area for state NO2 standards and an attainment area for federal NO2 standards.

•Sulfur Dioxide (SO2): The project is located within an attainment area for both state and federal SO2 standards.

•Respirable Particular Matter (PM10): The project is located within a nonattainment area for state PM10 standards and an attainment-maintenance area for federal standards.

•Fine Particulate Matter (PM2.5): The project is located within a nonattainment area for both state and federal PM2.5 standards.

•Lead (Pb): The project is located within an attainment area for state Pb standards and a nonattainment area for federal standards.

Project Impacts

Alternative 1: No-Build (No-Action) Alternative

Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

According to the Air Quality and Greenhouse Gas Assessment (January 2024), per 40 CFR 93.126 published in the Federal Register (volume 73, page 4441) on January 24, 2008, Table 2 allows certain projects to be exempt from all emissions analyses. The proposed projects are funded by the Station Highway Operation and Protection Program (SHOPP) Roadway Preservation Program under 201.2XX as Roadway and Roadside Preservation Programs. The projects are identified in the latest conforming Federal Transportation Improvement Program (2023 FTIP) in a lumpsum category of LALS04 for Bridge Rehabilitation and Reconstruction; and are both deemed listed in 40 CFR 93.126 Table 2 under the subtitle “Safety” and classifications “Widening narrow pavements or reconstructing bridges (no additional travel lanes).” Therefore, pursuant to 40 CFR 93.126, both projects are classified and are exempt from the requirement to determine conformity.

The Transportation Project-Level Carbon Monoxide Protocol (published by Institute of Transportation Studies, University of California, Davis, Revised December 1997) indicates that a project-level air quality analysis is not required for projects exempt pursuant to 40 CFR 93.126 because they would be screened out at Step 3.1.1 of the CO Protocol. It is unlikely that the proposed projects will result in an adverse impact to ambient CO.

Since the proposed project is exempt from the conformity requirements per 40 CFR 93.126; and they are the type of project that are not anticipated to involve a significant number of or result in a significant increase in the number of diesel vehicles or in vehicle idling. The proposed projects are expected to have neutral influence on PM10 and PM2.5 emissions; and thus, are not anticipated to be of air quality concern for PM10 and PM2.5. The proposed Projects are unlikely to result in adverse impacts to ambient PM10 and PM2.5.

Further, the proposed project is not anticipated to result in any meaningful changes to traffic volumes, vehicle mix, location of the existing facility, or any other factors that would cause an increase in mobile source air toxic (MSAT) emissions impacts relative to Alternative 1. According to the FHWA’s Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents dated January 18, 2023, no analysis or discussion of MSAT is necessary for projects exempt from conformity requirements pursuant to 40 CFR 93.126.

The proposed project is not anticipated to result in increase in operational GHG emissions as no additional roadway capacity will be added. However, per Governor’s Executive Order B-30-15, Caltrans requires that construction GHG emissions be quantified. Caltrans completed an estimate of construction emissions based on construction activities data in the project initiation documents.

As a result of the above findings regional and/or project level conformity is not required.

During construction, short-term degradation of air quality may occur due to the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other construction-related activities. Emissions from construction equipment also are expected and would include carbon monoxide (CO), nitrogen oxides (NOx), volatile organic compounds (VOCs), directly emitted particulate matter (PM10 and PM2.5), and toxic air contaminants such as diesel exhaust particulate matter. Ozone is a regional pollutant that is derived from NOx and VOCs in the presence of sunlight and heat.

Site preparation and roadway construction typically involves clearing, cut-and-fill activities, grading, removing, or improving existing roadways, building bridges, and paving roadway surfaces. Construction-related effects on air quality from most highway projects would be greatest during the site preparation phase because most engine emissions are associated with the excavation, handling, and transport of soils to and from the site. These activities could temporarily generate enough PM10, PM2.5, and small amounts of CO, SO2, NOx, and VOCs to be of concern. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site could deposit mud on local streets, which could be an added source of airborne dust after it dries. PM10 emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM10 emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Construction activities for large development projects are estimated by the United States Environmental Protection Agency (U.S. EPA) to add 1.2 tons of fugitive dust per acre of soil disturbed per month of activity. If water or other soil stabilizers are used to control dust, the emissions can be reduced by up to 50 percent. The Department's Standard Specifications (Section 14) on dust minimization require use of water or dust palliative compounds and will reduce potential fugitive dust emissions during construction.

In addition to dust related PM10 emissions, heavy-duty trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO2, NOx, VOCs and some soot particulate (PM10 and PM2.5) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site.

SO2 is generated by oxidation during combustion of organic sulfur compounds contained in diesel fuel. Under California law and ARB regulations, off-road diesel fuel used in California must meet the same sulfur and other standards as on-road diesel fuel (not more than 15 ppm sulfur), so SO2-related issues due to diesel exhaust will be minimal.

Some phases of construction, particularly asphalt paving, may result in short-term odors in the immediate area of each paving site(s). Such odors would quickly disperse to below detectable levels as distance from the site(s) increases.

Most of the construction impacts to air quality are short-term in duration and, therefore, will not result in long-term adverse conditions. Implementation of the following standardized measures, some of which may also be required for other purposes such as storm water pollution control, will reduce any air quality impacts resulting from construction activities:

•The construction contractor must comply with the Department's Standard Specifications in Section 14.

•Section 14 specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances.

•Section 14 is directed at controlling dust. If dust palliative materials other than water are to be used, material specifications are described in Section 18.

•Water or dust palliative will be applied to the site and equipment as often as necessary to control fugitive dust emissions. Fugitive emissions generally must meet a "no visible dust" criterion either at the point of emissions or at the right-of-way line, depending on local regulations.

•Soil binder will be spread on any unpaved roads used for construction purposes, and on all project construction parking areas.

•Trucks will be washed as they leave the right-of-way as necessary to control fugitive dust emissions.

•Construction equipment and vehicles will be properly tuned and maintained. All construction equipment will use low sulfur fuel as required by California Code of Regulations Title 17, Section 93114.

•A dust control plan will be developed documenting sprinkling, temporary paving, speed limits, and timely revegetation of disturbed slopes as needed to minimize construction impacts to existing communities.

•Equipment and materials storage sites will be located as far away from residential, and park uses as practicable. Construction areas will be kept clean and orderly.

•ESA (Environmentally Sensitive Area)-like areas or their equivalent will be established near sensitive air receptors. Within these areas, construction activities involving the extended idling of diesel equipment or vehicles will be prohibited, to the extent feasible.

•Track-out reduction measures, such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic, will be used.

•All transported loads of soils and wet materials will be covered before transport, or adequate freeboard (space from the top of the material to the top of the truck) will be provided to minimize emission of dust (particulate matter) during transportation.

•Dust and mud that are deposited on paved, public roads due to construction activity and traffic will be promptly and regularly removed to decrease particulate matter.

•To the extent feasible, construction traffic will be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.

•Mulch will be installed, or vegetation planted as soon as practical after grading to reduce windblown particulate in the area.

As discussed in the Air Quality and Greenhouse Gas Assessment (January 2024), objectionable odor would be mainly related to operation of diesel-powered equipment and off-gas emissions during road-building activities, such as paving and asphalting. SCAQMD Rule 1113 (Architectural Coating) limits the amount of VOC emissions from paving, asphalt, concrete curing, and cement coatings operations. Construction of the proposed projects shall comply with all applicable AQMD Rules. While construction equipment on site would generate some objectionable odors primarily arising from diesel exhaust, these emissions would generally be limited to the project site and would be temporary in nature. The emissions from temporary construction activities have been estimated using the Caltrans Construction Emissions Tool (CAL-CET2021) v1.0.2. A summary output of the construction emissions calculations is described in section 2.3.5 Air Quality of the environmental document.

Current and Reasonably Foreseeable Future Actions

The current and reasonably foreseeable future actions considered in this analysis are presented in Table 17. All of these projects are located within the RSA for permanent cumulative impacts on air quality; therefore, these projects could contribute to permanent adverse cumulative impacts on air quality.

The projects, recorded in Table 17, may lead to an increase in pollutant emissions that could affect air quality in the area. In addition to the project, these projects could contribute to permanent adverse cumulative impacts on air quality.

These projects would add to the short-term reduction of air quality from the release of pollutant emissions during construction. Therefore, the projects could contribute to temporary adverse cumulative impacts on air quality.

Cumulative Impacts

Construction would comply with Caltrans' Standard Specifications, Section 14-9.02 which requires the contractor to comply with all applicable laws and regulations regarding air quality. Measures would be enforced to reduce any air quality impacts resulting from construction activities. These include, but are not limited to, removing dust, washing off trucks, cleaning construction areas, dust control plan, and covering all transported loads of soils and wet materials. With these regulated measures, the temporary cumulative impacts on air quality from the project would be substantially minimized. In addition, the project's contribution to temporary cumulative impacts would stop after the construction period.

Long-term adverse cumulative impacts would not develop as most of the construction impacts to air quality are short-term in duration.

Energy

Resource Study Area

The RSA includes Arroyo Seco Parkway, from N/110-N5 Connector Sidehill Viaduct PM 25.34 in the city of Los Angeles to Arroyo Seco Channel Bridge PM 30.1 in the city of South Pasadena. The RSA is in the cities of Los Angeles, Pasadena, and South Pasadena.

The RSA is located within an existing transportation corridor surrounded by urban development, and is adjacent to a variety of land uses, including residential, commercial, industrial, public, and recreational uses. Energy is currently consumed in the RSA for the construction of public and private projects, operation of automobiles, trucks, and for the operation of existing land uses. Automobile and truck fueling stations are located throughout the RSA.

Current Condition and Historical Context

Gasoline and diesel fuel are the largest transportation fuels used in California. Because of concerns about energy security and GHG emissions, other sources of motor vehicle fuels are being explored, including renewable fuels and alternative fuels.

Project Impacts

Alternative 1: No-Build (No-Action) Alternative

Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

Project construction would primarily consume diesel fuel through operation of heavy-duty construction equipment in roadway and structural excavation while consumption of gasoline fuel and electricity occurs primarily from delivery of materials, hauling, worker trips, and during installation of traffic signals, signage, striping or painting activities. The construction energy consumption for the Alternative 2 represents a small demand on local and regional fuel supplies that could be easily accommodated, and this demand would cease once construction is complete. Moreover, construction-related energy consumption would be temporary and not a permanent new source of energy demand.

Indirect energy use is consumption of energy from maintenance activities conducted on the facility, and from maintenance of vehicles using the facility. Indirect energy includes long-term energy consumption resulted from use of equipment required to operate and maintain the roadway. Indirect energy use is estimated by evaluating efforts to maintain the proposed project facility as well as the vehicles using the proposed facility.

Energy calculations for transportation projects are dependent on VMT and vehicle fuel consumption. The scope of work for the projects will not increase capacity nor relieve congestion. As such, these projects will not result in changes in traffic volumes, vehicle mix, or any other factor that would cause an increase in energy consumption of the projects from that of the Alternative 1. Because the VMT for the Alternative 1 and Alternative 2 remain the same for the project, direct energy consumption from mobile

sources and indirect energy consumption are also anticipated to remain unchanged between Alternative 1 and Alternative 2.

Based on the analyses, construction of the bridge replacement is anticipated to consume a total of 983.1 MBTU from the use of those fuels as well as the bridge replacement which will consume a total of 2,971.0 MBTU.

Because the projects' Alternative 2 is not of the type to affect traffic volumes and is not anticipated to affect VMT, no change in direct energy consumption from mobile sources is anticipated. Similarly, no change to indirect energy consumption is anticipated.

The project would result in a short-term consumption of energy and represents a small demand on local and regional fuels supplies that would be easily accommodated. Construction-related energy consumption would be temporary and would cease once construction is complete. Therefore, the project would not result in an inefficient, wasteful, and unnecessary consumption of energy.

Current and Reasonably Foreseeable Future Actions

The current and reasonably foreseeable future actions considered in this analysis are presented in Table 17.

Cumulative Impacts

When compared to Alternative 1, operation of the Alternative 2 would not result in a significant impact related to energy consumption in the project area or in the region. Maintenance of the Alternative 2 would not result in an impact related to energy consumption in the RSA or in the region when compared to Alternative 1.

Biological Resources

Resource Study Area

The RSA includes Arroyo Seco Parkway, from N/110-N5 Connector Sidehill Viaduct PM 25.34 in the city of Los Angeles to Arroyo Seco Channel Bridge PM 30.1 in the city of South Pasadena. The RSA is in the cities of Los Angeles, Pasadena, and South Pasadena.

Habitats and Natural Communities of Special Concern

Current Condition and Historical Context

Existing land uses within and adjacent to the RSA primarily include residential (single family residential, multi-family residential, and mobile homes and trailer parks), places of worship, schools, and open space and recreation. The RSA is in a highly developed and urbanized area in the city of Los Angeles.

Project Impacts

Alternative 1: No-Build (No-Action) Alternative

Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

Since Alternative 2 is confined to the prism of the roadway in highly disturbed areas, there is low potential for habitat connectivity within the project limits. The Los Angeles River Channel and Arroyo Seco Channel have some potential for habitat connectivity.

According to the USFWS IPaC Species List, there are no critical habitats which overlap the Project area. Since the project is confined to the prism of the roadway and Caltrans' R/W with some easement, no critical habitats or natural communities are expected to be affected by the project. Although presence is unlikely due to the environmental setting, listed species may be impacted and disturbed by noise. Listed species that may be impacted by noise from the project include Southwestern willow flycatcher (Empidonax traillii extimus), Least bell's vireo (Vireo bellii pusillus), Coastal California gnatcatcher (Polioptila californica), and Bank swallow (Riparia riparia). There should be a "no effect' determination for these species as there is no suitable habitat.

Current and Reasonably Foreseeable Future Actions

The current and reasonably foreseeable future actions considered in this analysis are presented in Table 17.

Cumulative Impacts

Other development projects could result in the loss of habitats or natural communities. Since the project would not impact natural communities, the project would not contribute to any temporary or permanent adverse cumulative impacts on natural communities' resources.

Wetlands and Other Waters

Current Condition and Historical Context

The Arroyo Seco Channel is a jurisdictional water for both federal and state agencies. Prior to the channelization of the Arroyo Seco, wetlands could have existed because of the soil and vegetation types native to the area along the river. Wetlands exist upstream of the project area at Brookside Park and Hahamonga Watershed Park where a matrix of permanent and seasonal wetlands are found in such habitat types as riparian woodlands, emergent marsh wetlands, and along the edges of stream channels.

Project Impacts

Alternative 1: No-Build (No-Action) Alternative

Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

Regulatory agency permits may be necessary for this project since there may be impacts to "Waters of the U.S." or "Waters of the State" as construction may require access to the Los Angeles River Channel and Arroyo Seco Channel. Most likely, a Section 404 Nationwide Permit from the Army Corps of Engineers (USACE) pursuant to the Clean Water Act may be required because there is the possibility of construction impacting the channels below the Ordinary High-Water Mark (OHWM), and the

channels flow ultimately to the Pacific Ocean (a 408 Permissions Permit must be obtained by Design before the 404 Permit is obtained). A Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB) pursuant to the Clean Water Act may be required because all surface water is jurisdictional, and there may be discharges to channels. A Section 1602 Streambed Alteration Agreement (SSA) from California Department of Fish and Wildlife (CDFW) pursuant to California Fish and Game Code may be required because the project may impact below the top of the bank of the channels. A determination on permits will be made at the PS&E phase when more information on impacts will be available.

Current and Reasonably Foreseeable Future Actions

The current and reasonably foreseeable future actions considered in this analysis are presented in Table 17.

Cumulative Impacts

No temporary impacts planned out at this point in the project phase. When the project enters PS&E and permits are submitted, access routes, staging, and storing would be further discussed in detail.

Cumulative Impacts

Because there are no impacts to plant species, the project would not contribute to temporary or permanent adverse cumulative impacts on special status plant species.

Plant Species

Current Condition and Historical Context

Existing land uses within and adjacent to the RSA primarily include residential (single family residential, multi-family residential, and mobile homes and trailer parks), places of worship, schools, and open space and recreation. The RSA is in a highly developed and urbanized area in the city of Los Angeles. According to the Natural Environmental Study (January 2024), vegetation is largely lacking at each of the project sites, with some ruderal and native species in the vicinity.

Project Impacts

Because vegetation is largely lacking at each of the project sites, impacts are not anticipated as a result of Alternative 2.

Current and Reasonably Foreseeable Future Actions

The current and reasonably foreseeable future actions considered in this analysis are presented in Table 17.

Cumulative Impacts

The project would not contribute to temporary or permanent adverse cumulative impacts with the implementation of the avoidance and minimization measures proposed in the environmental document.

Special Status Animal Species

Current Condition and Historical Context

Existing land uses within and adjacent to the RSA primarily include residential (single family residential, multi-family residential, and mobile homes and trailer parks), places of worship, schools, and open space and recreation. The RSA is in a highly developed and urbanized area.

According to the Natural Environmental Study (December 2023), there may be urban associated wildlife species within the project limits at each of the bridge sites. No animals were observed within the project area during the December 28, 2023 visit, although there were signs of day and night roosting bats at the LA-110/ Los Angeles River bridge site (Bridge Number 53-2225G) and the LA-110/Arroyo Seco Channel bridge (Bridge Number 53-0276) site, respectively. Further studies are necessary to determine if there is day roosting bats or a maternity colony on these bridges. There are over a dozen inactive swallow nests on the LA-110 Bridge (Bridge Number 53-0276) over Arroyo Seco.

There are no swallow nests on the LA-110 Bridge (Bridge Number 53-2225G) over the Los Angeles River as of December 28, 2023, however, there appears to be night roosting by bats on this same bridge as of December 28, 2023. There is the potential for bird nesting on the Avenue 43 Bridge (Bridge Number 53-0985S) over Arroyo Seco as a large nest was observed on a shelf below the bridge deck. There are over a dozen inactive swallow nests on the LA-110 Bridge (Bridge Number 53-0276) over Arroyo Seco and substantial staining from a joint indicating that bat day roosting is occurring at this bridge.

Project Impacts

Alternative 1: No-Build (No-Action) Alternative

Alternative would not include any of the proposed improvements. Therefore, the No Build Alternative would not result in any impacts.

Alternative 2: Build Alternative

There may be indirect impacts from noise to nesting birds or other biological resources. Although not strong evidence of bat presence, for the LA-110 Bridge over the Los Angeles River (Bridge Number 53-2225G) has the potential for night roosting, as staining was observed in corners on the underside of the bridge. For the LA-110 Bridge (Bridge Number 53-0276) over the Arroyo Seco Channel has the potential for bat day roosting as substantial staining was observed from a joint under the bridge. No bat guano was observed at any of the three bridges.

There is the potential for impacts to species, namely bats and swallows.

Current and Reasonably Foreseeable Future Actions

The current and reasonably foreseeable future actions considered in this analysis are presented in Table 17.

Cumulative Impacts

The project would not contribute to temporary or permanent adverse cumulative impacts with the implementation of the avoidance and minimization measures proposed in the environmental document.

Avoidance, Minimization, and/or Mitigation Measures

Avoidance, minimization, and/or mitigation measures have been proposed throughout the environmental document. No additional measures have been proposed in the cumulative impact analysis.

Chapter 3 California Environmental Quality Act (CEQA) Evaluation

3.1 DETERMINING SIGNIFICANCE UNDER CEQA

The proposed project is a joint project by the California Department of Transportation (Department) and the Federal Highway Administration (FHWA) and is subject to state and federal environmental review requirements. project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). FHWA's responsibility for environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 United States Code Section 327 (23 USC 327) and the Memorandum of Understanding dated May 27, 2022, and executed by FHWA and Caltrans. The Department is the lead agency under CEQA and NEPA.

One of the primary differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an EIS, or a lower level of documentation, will be required. NEPA requires that an EIS be prepared when the proposed federal action (project) as a whole has the potential to "significantly affect the quality of the human environment." The determination of significance is based on context and intensity. Some impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA. Under NEPA, once a decision is made regarding the need for an EIS, it is the magnitude of the impact that is evaluated, and no judgment of its individual significance is deemed important for the text. NEPA does not require that a determination of significant impacts be stated in the environmental documents.

CEQA, on the other hand, does require the Department to identify each "significant effect on the environment" resulting from the project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an EIR must be prepared. Each and every significant effect on the environment must be disclosed in the EIR and mitigated if feasible. In addition, the CEQA Guidelines list a number of "mandatory findings of significance," which also require the preparation of an EIR. There are no types of actions under NEPA that parallel the findings of mandatory significance of CEQA. This chapter discusses the effects of this project and CEQA significance.

3.2 CEQA ENVIRONMENTAL CHECKLIST

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects will indicate that there are no impacts to a particular resource. A NO IMPACT answer in the last column reflects this determination. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project, and standardized measures that are applied to all or most Caltrans projects such as Best Management Practices (BMPs) and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be an integral part of the project and have been considered prior to any significance determinations documented below; see Chapters 1 and 2 for a detailed discussion of these features. The annotations to this checklist are summaries of information contained in Chapter 2 in order to provide the reader with the rationale for significance determinations; for a more detailed discussion of the nature and extent of impacts, please see Chapter 2. This checklist incorporates by reference the information contained in Chapters 1 and 2.

3.2.1 Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:

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

CEQA Significance Determinations for Aesthetics

a) Less Than Significant Impact: The following minimization measures will reduce adverse effects on a scenic vista.

VIS-MIN 1: The design strategy is to retain the visual character of existing aesthetic features. The aesthetic treatment on the retaining wall and concrete barrier are to complement the color and pattern of other structures in the corridor. The existing concrete or metal baluster posts on the concrete barrier with see thru opening will be replaced with similar material and design.

VIS-MIN 3: Metallic surfaces, where feasible and applicable, are to be treated with oxidizing agent to appear aged and non-reflective.

b) Less Than Significant Impact: The following minimization measures will reduce damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

Please see VIS-MIN 1 and VIS-MIN 3.

VIS-MIN 2: Avoid and/or minimize removal of existing vegetation. At the connector ramp, a few unhealthy trees on the slope between the retaining wall and flood control channel wall will be removed. Replacement trees are not proposed due to lack of safe access and limited space. No trees are anticipated to be removed at Ave 43 Bridge and Arroyo Seco Channel Bridge.

VIS-MIN 4: Apply erosion control to all disturbed slopes; seed species, if applicable, to be California native plants or native to the Arroyo Seco Watershed.

c) N/A

d) No Impact: The proposed project would not include new lighting elements in an area in which there is currently no lighting.

3.2.2 Agriculture and Forestry Resources

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

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

CEQA Significance Determinations for Agriculture and Forestry Resources

a), b), c), d), e) No Impact: Agricultural and Forestry Resources will not be impacted as a result of the proposed project.

3.2.3 Air Quality

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

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

CEQA Significance Determinations for Air Quality

a) No Impact: The proposed project will not conflict with or obstruct implementation of the applicable air quality plan.

b) No Impact: The proposed project will not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard.

c) Less Than Significant Impact: The following minimization measure will be implemented to ensure that sensitive receptors are not exposed to substantial pollutant concentration.

AQ-1 MIN: Objectionable odors should also be minimized by conducting certain construction activities in areas at least 500 feet from the sensitive receptors as feasible. A part of review of design plans and specifications, the AQB will also coordinate for approval of a nonstandard special provision (NSSP) 14-9.05 to mandate contractors' compliance with the applicable air district rules including measures related to dust control.

GHG-2 MIN: Limit idling to 5 minutes for delivery and dump trucks and other diesel-powered equipment.

GHG-3 MIN: Schedule truck trips outside of peak morning and evening commute hours.

GHG-4 MIN: For improved fuel efficiency from construction equipment:

• Maintain equipment in proper tune and working condition

• Use right sized equipment for the job

• Use equipment with new technologies

GHG-5 MIN: Use alternative fuels such as renewable diesel for construction equipment whenever possible.

d) No Impact: The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

3.2.4 Biological Resources

Would the project:

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

CEQA Significance Determinations for Biological Resources

a), b), c), d), e) Less Than Significant Impact: Impacts to biological resources are anticipated as a result of the proposed project with the implementation of the following minimization measures:

BIO-4 MIN: If any species of concern are observed during construction activities, all work shall immediately cease, and the Caltrans District Biologist shall be immediately notified. Work shall not resume until clearance is given by the District Biologist.

BIO-9 MIN: The contractor shall not introduce any invasive species during construction. Methods of invasive control include washing equipment regularly, monitoring the site for invasive species, and removal of invasive species by qualified personnel when they occur.

BIO-10 MIN: There will be no vegetation removal with this project. If it is determined that vegetation must be removed, the Caltrans District Biologist will be notified two weeks prior to removal of vegetation or commencement of construction to determine if birds are nesting. Bird nesting season is normally February 1st through September 1st; however, bird nesting behavior has begun earlier than expected due to current weather patterns. In the event that nesting birds are observed, the Caltrans District Biologist should be contacted, and the contractor should not conduct removal of nests until it is determined that the fledglings have left the nest. If this is not possible, coordination with the District Biologist should take place in order to minimize the risk of violating the Migratory Bird Treaty Act, and the following minimization measure put in place: a buffer of 150 ft. for songbirds and 500 ft. for raptors which must be maintained during all phases of construction during the nesting bird season. Nesting birds may not be impacted by any construction activity including noise and dust pollution along with destruction of habitat.

BIO-11 MIN: If vegetation removal or construction should occur during the bird nesting season, surveys will be conducted to determine presence of nesting birds, and appropriate minimization measures will be implemented to comply with the Migratory Bird Treaty Act, since adherence to the Migratory Bird Treaty Act is another regulatory requirement.

BIO-13 MIN: Caltrans anticipates day or night roosting and breeding from March 1 to October 31. Caltrans must protect bats from disturbance caused by work within the project. Bats roost inside bridges and on trees year-round but are most active between March and October. If bats are found where there will be activity, do not start work in that area until bat species have been identified and approved bat exclusionary and roosting preventive measures are in place. A Caltrans District Biologist will conduct a survey before construction to determine the presence or absence of regulated bat species. Surveys will include monitoring bat activity, identifying types of bats present, determining appropriate buffers, and determining requirements for bat exclusionary and roosting preventive measures. Surveys may include nighttime surveys, entering bridge box girders or being lifted with equipment to check for bats in bridge joints and crevices.

BIO-14 MIN: If bats are discovered at the project site, do not use construction and lighting equipment until approved bat exclusionary and roosting preventive measures are in place. If ordered, use bat exclusionary and roosting preventive measures such as bat houses, weep-hole covers, and netting or fabric on a regular basis to prevent their occupation, or perform any combination of these.

BIO-15 MIN: It is also highly recommended that that work be conducted outside of the roosting bat season (October 31 to March 1) for the LA-110 Bridge (Bridge Number 53-2225G) over the Los Angeles River and the LA-110 Bridge (Bridge Number 53-0276) over the Arroyo Seco Channel. Hence, it is recommended that work on these two bridges should be confined to October 31 to February 1, while work on the Avenue 43 Bridge (Bridge Number 53-0985S) should avoid the nesting bird season (from September 1 to February 1). If this is not feasible, exclusionary devices for bats and birds may be necessary.

BIO-16 MIN: Construction should be limited to the period outside of the bird nesting season, which is from September 1 to February 1. If work is conducted during the nesting bird season, from February 1 to September 1, nesting bird surveys by a qualified biologist must be conducted a minimum of 3 days before commencement of work. For songbirds and raptors, if there are active nests, a buffer zone of 150 feet or 500 feet, respectively, must be established with no work in the buffer zone until the fledglings can flee the project area.

BIO-17 AV: If work will be conducted during nesting bird season (from February 1 to September 1) and/or conducted during roosting bat season (March 1 to October 31) for the LA-110 Bridge (Bridge Number 53-2225G) over the Los Angeles River and the LA-110 Bridge (Bridge Number 53-0276) over the Arroyo Seco Channel, exclusionary devices will be necessary. Hence, it is recommended that work on these two bridges should be confined to October 31 to February 1, while work on the Avenue 43 Bridge (Bridge Number 53-0985S) should avoid the nesting bird season (from February 1 to September 1). If this is not feasible, exclusionary devices for bats and birds may be necessary.

f). No Impact: The proposed project does not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

3.2.5 Cultural Resources

Would the project:

Question	CEQA Determination
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Less Than Significant Impact
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	Less Than Significant Impact

CEQA Significance Determinations for Cultural Resources

a) No Impact-The proposed project will not cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5

b) Less Than Significant Impact- The proposed project will not cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5

c) Less Than Significant Impact- The proposed project will not disturb any human remains, including those interred outside of dedicated cemeteries. The following minimization measure will ensure compliance:

CUL MIN- 1: Caltrans' standard specification to stop work in the event that artifacts or other cultural materials are encountered will apply, i.e., should buried cultural materials be encountered during construction, it is Caltrans policy that work in that area must stop until a qualified archaeologist can evaluate the nature and significance of the find. Should project plans change to include unsurveyed areas, additional archaeological studies will be required.

3.2.6 Energy

Would the project:

Question	CEQA Determination
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No Impact

CEQA Significance Determinations for Energy

a), b): No energy impacts are anticipated as a result of the proposed project.

3.2.7 Geology and Soils

Would the project:

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

Question	CEQA Determination
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Less Than Significant Impact

CEQA Significance Determinations for Geology and Soils

ai) No Impact: The project is not located in an Alquist-Priolo Fault zone. However, the site is located near a fault trace of the Elysian Park Fault (Lamar, 1970). According to Oskin et al 2000, the fault is capable of a magnitude 6.2 to 6.7 earthquake every 500 to 1300 years.

aii) No Impact: The project is not located in an Alquist-Priolo Fault zone. However, the site is located near a fault trace of the Elysian Park Fault (Lamar, 1970). According to Oskin et al 2000, the fault is capable of a magnitude 6.2 to 6.7 earthquake every 500 to 1300 years.

aiii) Less Than Significant: There is a mapped quaternary age landslide just to the north of the proposed project (Dibble, 1989 and Lamar, 1970). The kinematics and failure type are unknown. However, due to the steepness (approximately 1H:1V) of the slope to the west of the project area and the project site being in an earthquake zone of required investigation (ZORI) for landslide hazard mapped by the California Geological Survey (CGS) slope stability issues must be accounted for during construction. Although the project is mapped within a ZORI for liquefaction hazard mapped by the CGS the project site will be founded on bedrock, therefore the liquefaction potential is extremely low.

aiv) Less Than Significant: There is a mapped quaternary age landslide just to the north of the proposed project (Dibble, 1989 and Lamar, 1970). The kinematics and failure type are unknown. However, due to the steepness (approximately 1H:1V) of the slope to the west of the project area and the project site being in an earthquake zone of required investigation (ZORI) for landslide hazard mapped by the California Geological Survey (CGS) slope stability issues must be accounted for during construction. Although the project is mapped within a ZORI for liquefaction hazard mapped by the CGS the project site will be founded on bedrock, therefore the liquefaction potential is extremely low.

b) No Impact: The proposed project is not anticipated to result in substantial soil erosion or the loss of topsoil.

c.) Less Than Significant: There is a mapped quaternary age landslide just to the north of the proposed project (Dibble, 1989 and Lamar, 1970). The kinematics and failure type are unknown. However, due to the steepness (approximately 1H:1V) of the slope to the west of the project area and the project site being in an earthquake zone of

required investigation (ZORI) for landslide hazard mapped by the California Geological Survey (CGS) slope stability issues must be accounted for during construction. Although the project is mapped within a ZORI for liquefaction hazard mapped by the CGS the project site will be founded on bedrock, therefore the liquefaction potential is extremely low.

d) Less Than Significant: There is a mapped quaternary age landslide just to the north of the proposed project (Dibble, 1989 and Lamar, 1970). The kinematics and failure type are unknown. However, due to the steepness (approximately 1H:1V) of the slope to the west of the project area and the project site being in an earthquake zone of required investigation (ZORI) for landslide hazard mapped by the California Geological Survey (CGS) slope stability issues must be accounted for during construction. Although the project is mapped within a ZORI for liquefaction hazard mapped by the CGS the project site will be founded on bedrock, therefore the liquefaction potential is extremely low.

The proposed improvements will impact the stability of the southbound connector retaining wall. A slope stability analysis will have to be performed for temporary conditions during the construction of the northbound connector retaining wall.

e) No Impact: The proposed project is not anticipated to impact soils that are incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water.

f) Less Than Significant Impact: The proposed project is not anticipated to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Minimization measures PALEO MIN-1 through PALEO MIN-7 described below will be implemented to ensure protection of paleontological resources.

PALEO MIN-1: A Qualified Paleontologist/Paleontological Monitor must monitor the project site as described in Table 8. This individual will be responsible for the collection and salvage of fossil materials. A Caltrans Paleontological Coordinator shall review resumes and qualifications prior to construction.

A Paleontological Monitor is an individual who has demonstrated experience in the collection and salvage of fossil materials. An undergraduate degree in geology or paleontology is preferable but is less important than documented experience performing paleontological monitoring and mitigation. The Paleontological Monitor must work under the direction of the Qualified Paleontologist. A Caltrans Paleontology Coordinator shall review resumes and qualifications prior to construction.

PALEO MIN-2: Worker Training and On-call Paleontological Monitoring
Prior to any ground disturbances for the project, a Qualified Paleontologist would inform the worker crew about the geologic formations that may be encountered during excavations, including the types of material associated with each of those formations (i.e., fill, clay, sand, etc.). The Qualified Paleontologist would document the training in a

worker training log. An example worker training log is provided in Appendix 3 of the Paleontological Evaluation Report and Paleontological Mitigation Report (August 2024).

PALEO MIN-3: If significant fossils are discovered during excavations, the trained work crew would immediately notify the Resident Engineer, who has the authority to stop all work in the immediate vicinity of the discovery/excavation per SSP-14-7.03. The Resident Engineer would immediately notify an on-call Paleontological Monitor, who would evaluate the discovery and consult with the Qualified Paleontologist, Caltrans, museum repositories, and local experts, as applicable, to determine if salvage, recovery, and curation is required per SSP 14-7.04. For significant paleontological resources, a recovery program would be initiated that would follow the general steps outlined herein, with refinements as needed based on the type and nature of the discovery.

PALEO MIN-4: All project-related excavations, including the depth, may become available and Caltrans shall provide these data as soon as possible. Most excavations are anticipated to encounter Puente Formation for the removal, constructing the new proposed earth retaining system and widening. Therefore, paleontological monitoring is required as described in Table 8.

PALEO MIN-5: Salvage and recovery operations as well as Laboratory efforts guidance is described in the Paleontological Evaluation Report and Paleontological Mitigation Report (August 2024), which is available upon request.

PALEO MIN-6: Donation to Repository or Museum
Specimens shall be cataloged, and a complete list shall be prepared of specimens introduced into the collections or a repository by the curator of the museum or university. Adequate storage includes curation of individual specimens into the collection of a recognized, nonprofit paleontological specimen repository with a permanent curator, such as at the museum repository. A complete set of field notes, geologic maps, and stratigraphic sections must accompany the fossil collections. An example letter donating salvaged paleontological resources to an institution is provided in Appendix 4 of the Paleontological Evaluation Report and Paleontological Mitigation Report (August 2024).

PALEO MIN-7: Preparation of Paleontological Mitigation Report
A final Paleontological Mitigation Report (PMR) shall be prepared by the project Paleontologist documenting implementation of the approved PMP. The report would adhere to Caltrans SER guidelines and would include, at a minimum, discussions of project impacts, regulatory requirements, purpose of mitigation, regional geologic context, project stratigraphy, stratigraphic and geographic distribution of paleontological resources, field and laboratory methods and procedures, fossil recovery, and paleontological significance. The report would also include geological cross sections and stratigraphic sections depicting fossil discovery localities and excavated rock units; maps showing the project location and vicinity, as well as project geology and location of discovered fossil localities; appropriate photographs or illustrations depicting

monitoring conditions, field context of collecting localities, quarry maps, and laboratory activities; and appendices including an itemized listing of catalogued fossil specimens, complete descriptions of all fossil collecting localities, an explanation of report acronyms and terms, and a signed curation agreement with an approved paleontological repository.

3.2.8 Greenhouse Gas Emissions

Would the project:

Question	CEQA Determination
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less Than Significant Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	No Impact

CEQA Significance Determinations for Greenhouse Gas Emissions

a) Less Than Significant: The proposed project is not anticipated to result in increase in operational GHG emissions as no additional roadway capacity will be added. However, per Governor's Executive Order B-30-15, Caltrans requires that construction GHG emissions be quantified. The AQB completed an estimate of construction emissions below based on construction activities data in the project initiation documents. The following minimization measures will be implemented:

GHG-1 MIN: It is recommended that the PDT review, evaluate, and consider project measures in Tables 1 and 3 of the Toolbox GHG reduction measures Toolbox (ca.gov) and that the projects commit to include all feasible and relevant measures identified from the Tables. If any measures are proposed outside the Tables in the Toolbox, the PDT shall ensure that those measures are biddable, buildable, and can be successfully implemented. All identified reduction measures shall be carried forward in the ECR.

GHG-2 MIN: Limit idling to 5 minutes for delivery and dump trucks and other diesel-powered equipment.

GHG-3 MIN: Schedule truck trips outside of peak morning and evening commute hours.

GHG-4 MIN: For improved fuel efficiency from construction equipment:

• Maintain equipment in proper tune and working condition

• Use right sized equipment for the job

• Use equipment with new technologies

GHG-5 MIN: Use alternative fuels such as renewable diesel for construction equipment whenever possible.

GHG-6 MIN: Salvage rebar from demolished concrete and process waste to create usable fill.

GHG-7 MIN: Maximize use of recycled materials (tire rubber for example).

GHG-8 MIN: Reduce construction waste. For example, reuse or recycle construction and demolition waste (reduces consumption of raw materials, reducing waste and transportation to landfill; saves costs).

GHG-9 MIN: Use recycled water or reduce consumption of potable water for construction.

b) No Impact: The proposed project is not anticipated to conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

3.2.9 Hazards and Hazardous Materials

Would the project:

Question	CEQA Determination
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less Than Significant Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Less Than Significant Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Less Than Significant Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Less Than Significant Impact
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two nautical miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less Than Significant Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	No Impact

CEQA Significance Determinations for Hazards and Hazardous Materials

a) Less Than Significant: The proposed project is not anticipated to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. The following minimization measures will be implemented:

HAZ MIN-1: A site investigation (SI) will be required for this project during PS&E to determine the actual concentration of lead to prepare the special provisions for handling and disposal of the contaminated soils. For estimating purposes, please consider the top 3.5 feet of excavated soil in the unpaved areas within 30 feet from the edge of traveled way to be contaminated with ADL requiring disposal to a Class I facility as Type Z-3 soil.

HAZ MIN-2: The contractor is required to prepare a project specific Lead Compliance Plan (LCP) to protect workers from the hazards of lead during disturbance and/or excavation of ADL impacted soil.

HAZ MIN-3: For areas with hazardous waste concentrations of lead, the soil can be reused in the immediate area of disturbance and must not be transported elsewhere.

HAZ MIN-4: A lead compliance plan (LCP) will be required to protect workers from the hazard from lead.

HAZ MIN-5: Notification to the South Coast Air Quality Management District (SCAQMD) is required prior to renovation or demolition of a structure regardless of whether asbestos is detected or not. If the ACM survey identifies asbestos, the appropriate special provision (SSP/NSSP 14-11.16) will be provided for the PS&E package.

HAZ MIN-6: The LBP survey must be performed by a Licensed Lead Inspector/Supervisor.

HAZ MIN-7: Prior to starting construction, the contractor shall inspect the existing electrical equipment and components to determine if they contain any hazardous materials. The handling and disposal of electrical waste is governed by the latest Caltrans Standard Specifications section 14-11.15, Disposal of Electrical Equipment Requiring Special Handling. All electrical parts containing hazardous material shall be packaged and transported to an appropriate hazardous waste disposal facility.

HAZ MIN-8: If traffic stripe will be removed from pavement prior to demolition, SSP(s) for the removal, management, and disposal will be prepared for the PS&E package.

HAZ MIN-9: The appropriate SSP for lead, chromium in yellow thermoplastic, and painted striping will be provided to address the hazards to workers and management of residue for the PS&E package.

HAZ MIN-10: If traffic stripe is removed from pavement prior to demolition, the Contractor is required to prepare a Lead Compliance Plan (LCP) to address protection

of workers from exposure to the hazards from lead. The LCP shall be prepared by a certified industrial hygienist (CIH) and submitted to Caltrans for review and acceptance.

HAZ MIN-11: If the project requires imported borrow, the contractor is responsible to perform analytical tests to ensure that imported borrow is free of contamination per SSP 6-1.03B, Imported Borrow.

b,c,d) Less Than Significant: The proposed project is not anticipated to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Nor, emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Nor, be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment. HAZ MIN 1-11 will be implemented to ensure impacts are less than significant.

e) No Impact: The proposed project is not within an airport land use plan or, where such a plan has not been adopted, within two nautical miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area.

f) Less Than Significant: The proposed project is not anticipated to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The following minimization measure will be implemented:

ES-1 MIN: Early coordination, including notification of lane closures and detours, will be conducted with local emergency service providers to minimize potential delays or disruptions.

g) No Impact: The proposed project is not located within or near high fire hazards severity zones.

3.2.10 Hydrology and Water Quality

Would the project:

Question	CEQA Determination
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	No Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	No Impact

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

CEQA Significance Determinations for Hydrology and Water Quality

a-e) No Impact- The proposed project is not anticipated to have any impacts on hydrology and water quality.

3.2.11 Land Use and Planning

Would the project:

Question	CEQA Determination
a) Physically divide an established community?	No Impact
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	No Impact

CEQA Significance Determinations for Land Use and Planning

a) No Impact: The proposed project would not physically divide an established community.

b) No Impact: The proposed project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

3.2.12 Mineral Resources

Would the project:

Question	CEQA Determination
a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?	No Impact
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	No Impact

CEQA Significance Determinations for Mineral Resources

a) No Impact: The proposed project would not result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state.

b) No Impact: The proposed project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

3.2.13 Noise

Would the Project result in:

Question	CEQA Determination
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Less Than Significant Impact
b) Generation of excessive groundborne vibration or groundborne noise levels?	Less Than Significant Impact
c) For a Project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two nautical miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?	No Impact

CEQA Significance Determinations for Noise

a,b) Less Than Significant: Section 14-8.02, Sound Control Requirements, of Caltrans standard specifications states that overnight construction noise levels should not exceed sustained 86 dBA at 50 feet from the job site activities. These requirements also state that noise levels generated during construction shall comply with applicable local, state, and federal regulations. Incorporating the standard sound control requirements into the project would address temporary construction noise-related potential impacts.

c) No Impact: The proposed project is not located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two nautical miles of a public airport or public use airport, and would not expose people residing or working in the project area to excessive noise levels.

3.2.14 Population and Housing

Would the project:

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

CEQA Significance Determinations for Population and Housing

a,b) No Impact: The proposed project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). Further, the proposed project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

3.2.15 Public Services

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

Question	CEQA Determination
a) Fire protection?	Less Than Significant Impact
b) Police protection?	Less Than Significant Impact
c) Schools?	No Impact
d) Parks?	No Impact
e) Other public facilities?	No Impact

CEQA Significance Determinations for Public Services

a,b) Less Than Significant: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the above public services. Further, the following minimization measure will be implemented:

ES-1 MIN: Early coordination, including notification of lane closures and detours, will be conducted with local emergency service providers to minimize potential delays or disruptions.

c,d,e) No Impact: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the above public services.

3.2.16 Recreation

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

CEQA Significance Determinations for Recreation

a,b) No Impact: The proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. Further, the proposed project does not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

3.2.17 Transportation

Would the project:

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

CEQA Significance Determinations for Transportation

a) No Impact: The proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

b) No Impact: The proposed project would not Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).

c) No Impact: The proposed project would not Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses.

d) Less Than Significant Impact: The proposed project will not result in inadequate emergency access with the implementation of following minimization measures:

ES-1 MIN: Early coordination, including notification of lane closures and detours, will be conducted with local emergency service providers to minimize potential delays or disruptions.

TR-1 MIN: A Transportation Management Plan (TMP) will be prepared and implemented for the project during the construction phase of the project, which will include public information, motorist information, incident management, construction, demand management, and alternate routes or detours.

TR-3 MIN: Prior to construction, coordination would be conducted with public transportation agencies to provide rerouting information, including operating schedules, to the public at least one month in advance of any service disruptions.

3.2.18 Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

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

CEQA Significance Determinations for Tribal Cultural Resources

a) Less Than Significant Impact- When the project work is analyzed within the context of the entire district, using context sensitive designs (the three types of bridges rails and retaining wall aesthetic treatment) and the large majority of contributing resources still retaining high levels of integrity and original bridge rails, the overall effects to the ASPHD are considered Not Adverse and that there will be No Effect to the ASFCC.

Caltrans has received concurrence on the FNAE on September 3, 2024, which can be found in Chapter 4 Comments and Coordination of the DED.

b) No Impact- The proposed project is not anticipated to impact significant resources to California Native American Tribes.

3.2.19 Utilities and Service Systems

Would the project:

Question	CEQA Determination
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	No Impact

Question	CEQA Determination
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?	No Impact
c) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?	No Impact
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No Impact

CEQA Significance Determinations for Utilities and Service Systems

a) No Impact: The proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

b) No Impact: The proposed project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

c) No Impact: The proposed project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

d) No Impact: The proposed project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

e) No Impact: The proposed project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

3.2.20 Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

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

CEQA Significance Determinations for Wildfire

a) No Impact: The proposed project is not anticipated to substantially impair an adopted emergency response plan or emergency evacuation plan. The following minimization measure will also be implemented:

ES-1 MIN: Early coordination, including notification of lane closures and detours, will be conducted with local emergency service providers to minimize potential delays or disruptions.

b,c) No Impact: The proposed project is not within a high wildfire area

d) No Impact: The proposed project is not anticipated to expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

3.2.21 Mandatory Findings of Significance

Question	CEQA Determination
a) Does the Project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	Less Than Significant Impact
b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	No Impact
c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Less Than Significant Impact

CEQA Significance Determinations for Mandatory Findings of Significance

a) Less Than Significant- The proposed project is not anticipated to have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. Avoidance and minimization measures discussed throughout the environmental document will ensure any impacts will be minimized to be less than significant.

b) No Impact- The proposed project is not anticipated to produce impacts that are individually limited, but cumulatively considerable.

c) Less Than Significant- The proposed project is not anticipated to have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly. Avoidance and minimization measures discussed throughout the environmental document will ensure any impacts will be minimized to be less than significant.

3.3 SENATE BILL 743/INDUCED DEMAND ANALYSIS

Regulatory Setting

In 2020, Caltrans implemented Senate Bill (SB) 743. SB 743 changes the way the Department evaluates transportation projects, aiming to reduce the amount of time people must spend behind the wheel. The legislation has prompted a change in the way the state measures the impacts of new development and transportation projects. In the past, projects were evaluated based on the potential increase in traffic in the immediate area. The new approach (called "Vehicle Miles Traveled" or "VMT") looks at the number and length of car trips induced by development projects and transportation.

VMT changes transportation analysis from measuring the impact of a proposed project on drivers, to measuring the impact of driving on the community. This change does not alter the State's commitment to the Road Maintenance and Rehabilitation program that was approved as part of SB 1.

According to the SB 743: Rethinking How We Build so Californians Can Drive Less (July 2020), the ways we have studied traffic have been focused solely on car use and often resulted in unintended outcomes that are out of step with California's vision for the future. We have been measuring whether a new development or transportation investment would cause traffic delays during rush hour. But rush hour congestion doesn't really tell us if the transportation system is efficiently getting as many people as possible to the places they need to go.

If a proposed development project would make congestion worse, the owner of the Project was required to pay fees (called mitigation) to, for example, help widen an intersection. Projects in areas that were already congested even if the project provided community benefits, new housing, or retail space often triggered a need for expensive mitigation. Developers often reduced the number of housing units in a development to reduce anticipated congestion, and sometimes entire housing projects just became too expensive to build. The cost of mitigation often became an incentive to build in outlying areas where there was less concern about congestion—which unintentionally reinforced auto dependency, creating longer commutes and higher transportation costs.

Affected Environment

Projects that create facilities for pedestrians and about half of housing projects will not need to analyze VMT. Maintenance projects like re-paving and filling potholes are unaffected by the change, as are many safety improvements, including traffic calming measures to slow traffic. This change does not alter the State's commitment to the Road Maintenance and Rehabilitation program that was approved as part of SB 1. For transportation projects that increase capacity, such as freeway lane additions, Caltrans will analyze VMT using a method that reflects a phenomenon called "induced travel." Drivers often change their habits to take advantage of the new capacity, spurring induced travel. In the long term, studies show that new roadway capacity stimulates additional land development, often in outlying locations, which then induces more car travel. Transportation projects resulting in induced travel will generally be determined to

have a significant transportation impact, requiring consideration of alternatives and feasible mitigation.

Environmental Consequences

According to the Caltrans Transportation Analysis under CEQA (September 2020), the proposed project is not likely to lead to a measurable and substantial increase in vehicle travel. This project would be considered a "…rehabilitation, maintenance, replacement, safety, and repair projects designed to improve the condition of existing transportation assets (e.g., highways; roadways; bridges; culverts; Transportation Management System field elements such as cameras, message signs, detection, or signals; tunnels; transit systems; and assets that serve bicycle and pedestrian facilities) and that do not add additional motor vehicle capacity."

Avoidance, Minimization, and/or Mitigation Measures

Because the proposed project is not likely to lead to a measurable and substantial increase in vehicle travel, no avoidance, minimization, and/or mitigation measures will be required.

3.4 CLIMATE CHANGE

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the Earth's climate system. The Intergovernmental Panel on Climate Change, established by the United Nations and World Meteorological Organization in 1988, is devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy. Climate change in the past has generally occurred gradually over millennia, or more suddenly in response to cataclysmic natural disruptions. The research of the Intergovernmental Panel on Climate Change and other scientists over recent decades, however, has unequivocally attributed an accelerated rate of climatological changes over the past 150 years to GHG emissions generated from the production and use of fossil fuels.

Human activities generate GHGs consisting primarily of carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF6), and various hydrofluorocarbons (HFCs). CO2 is the most abundant GHG; while it is a naturally occurring and necessary component of Earth’s atmosphere, fossil-fuel combustion is the main source of additional, human-generated CO2 that is the main driver of climate change. In the U.S. and in California, transportation is the largest source of GHG emissions, mostly CO2.

The impacts of climate change are already being observed in the form of sea level rise, drought, extended and severe fire seasons, and historic flooding from changing storm patterns. The most important strategy to address climate change is to reduce GHG emissions. Additional strategies are necessary to mitigate and adapt to these impacts. In the context of climate change, “mitigation” involves actions to reduce GHG emissions to lessen adverse impacts that are likely to occur. “Adaptation” is planning for and responding to impacts to reduce vulnerability to harm, such as by adjusting transportation design standards to withstand more intense storms, heat, and higher sea levels. This analysis will include a discussion of both in the context of this transportation project.

3.4.1 Regulatory Setting

For a full list of laws, regulations, and guidance related to climate change (GHGs and adaptation), please refer to Caltrans’ Standard Environmental Reference (SER), Chapter 16, Climate Change.

3.4.1.1 Federal

To date, no nationwide numeric mobile-source GHG reduction targets have been established, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level.

The National Environmental Policy Act (NEPA) (42 United States Code [USC] Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project. In January 2023, the White House Council on Environmental Quality (CEQ) issued updated and expanded interim National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change (88 Fed. Reg. 1196) (CEQ NEPA GHG Guidance), in accordance with EO 14057, Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability, 86 FR 70935 (Dec. 13, 2021) and EO 14008, Tackling the Climate Crisis at Home and Abroad. The CEQ guidance does not establish numeric thresholds of significance but emphasizes quantifying reasonably foreseeable lifetime direct and indirect emissions whenever possible. This guidance also emphasizes resilience and environmental justice in project-level climate change and GHG analyses.

The Federal Highway Administration (FHWA) recognizes the threats that extreme weather, sea level rise, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. FHWA therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices (FHWA 2022). This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values— “the triple bottom line of sustainability” (FHWA n.d.). Program and project elements that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life.

Early efforts by the federal government to improve fuel economy and energy efficiency to address climate change and its associated effects include The Energy Policy and Conservation Act of 1975 (42 USC Section 6201); and Corporate Average Fuel Economy (CAFE) Standards. The U.S. Department of Transportation’s National Highway Traffic and Safety Administration (NHTSA) sets and enforces corporate average fuel economy (CAFÉ) standards for on-road motor vehicles sold in the United States. The Environmental Protection Agency (U.S. EPA) calculates average fuel economy levels for manufacturers, and sets related GHG emissions standards for vehicles under the Clean Air Act. Raising CAFE standards leads automakers to create a more fuel-efficient fleet, which improves our nation’s energy security, saves consumers money at the pump, and reduces GHG emissions (U.S. DOT 2014). These standards are periodically updated and published through the federal rulemaking process.

3.4.1.2 State

California has been innovative and proactive in addressing GHG emissions and climate change by passing multiple Senate and Assembly bills and executive orders (EOs).

In 2005, EO S-3-05 initially set a goal to reduce California's GHG emissions to 80 percent below year 1990 levels by 2050, with interim reduction targets. Later EOs and Assembly and Senate bills refined interim targets and codified the emissions reduction goals and strategies. The California Air Resources Board (ARB) was directed to create a climate change scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Ongoing GHG emissions reduction was also mandated in Health and Safety Code (H&SC) Section 38551(b). In 2022, the California Climate Crisis Act was passed, establishing state policy to reduce statewide human-caused GHG emissions by 85 percent below 1990 levels, achieve net zero GHG emissions by 2045, and achieve and maintain negative emissions thereafter.

Beyond GHG reduction, the State maintains a climate adaptation strategy to address the full range of climate change stressors and passed legislation requiring state agencies to consider protection and management of natural and working lands as an important strategy in meeting the state's GHG reduction goals.

3.4.2 Environmental Setting

The proposed project is in an urban area of Los Angeles County with a well-developed road and street network. The project area is mainly residential, with some light industrial and commercial buildings. The route in the project area is heavily used during peak hours. A metropolitan or regional transportation plan (MTP or RTP)/sustainable communities' strategy (SCS) by SCAG guides transportation development in the project area. The Los Angeles County General Plan Sustainability element addresses GHGs in the project area.

Further, the proposed project is funded by the Station Highway Operation and Protection Program (SHOPP) Roadway Preservation Program under 201.2XX as Roadway and Roadside Preservation Programs. The project is also identified in the latest conforming Federal Transportation Improvement Program (2023 FTIP) in a lumpsum category of LALS04 for Bridge Rehabilitation and Reconstruction; and is deemed listed in 40 CFR 93.126 Table 2 under the subtitle "Safety" and classifications "Widening narrow pavements or reconstructing bridges (no additional travel lanes)."

3.4.2.1 GHG Inventories

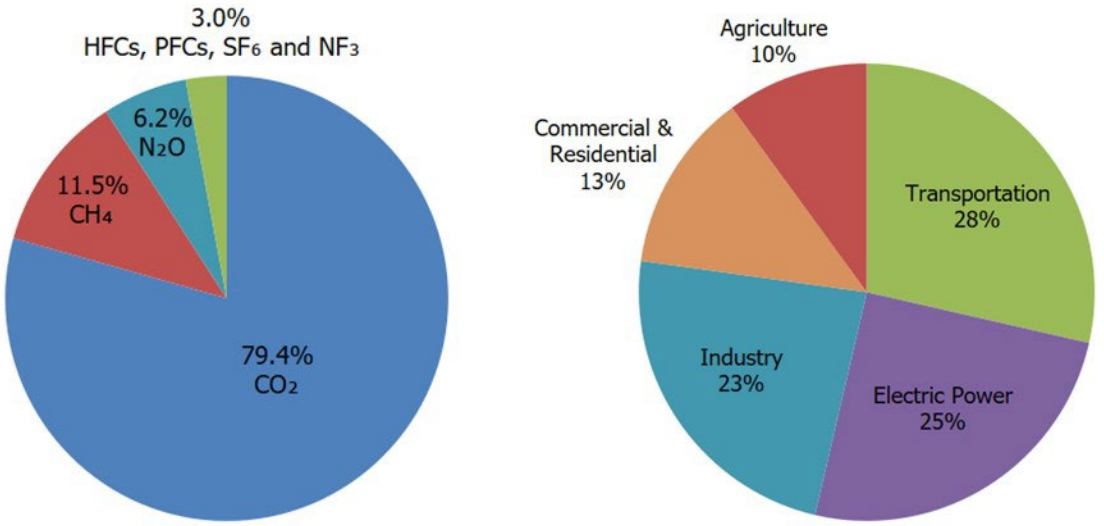
A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time. Tracking annual GHG emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. U.S. EPA is responsible for documenting GHG emissions nationwide, and the ARB does so for the state of California, as required by H&SC Section 39607.4. Cities and other local jurisdictions may also conduct local GHG inventories to inform their GHG reduction or climate action plans.

National GHG Inventory

The annual GHG inventory submitted by the U.S. EPA to the United Nations provides a comprehensive accounting of all human-produced sources of GHGs in the United States. Total national GHG emissions from all sectors in 2021 were 5,586.0 million metric tons (MMT), factoring in deductions for carbon sequestration in the land sector. (Land Use, Land Use Change, and Forestry provide a carbon sink equivalent to 12% of total U.S. emissions in 2021 [U.S. EPA 2023a].) While total GHG emissions in 2021 were 17% below 2005 levels, they increased by 6% over 2020 levels. Of these, 79.4% were CO2, 11.5% were CH4, and 6.2% were N2O; the balance consisted of fluorinated gases. From 1990 to 2021, CO2 emissions decreased by only 2% (U.S. EPA 2023a).

The transportation sector's share of total GHG emissions increased to 28% in 2021 and remains the largest contributing sector (Figure 11). Transportation fossil fuel combustion accounted for 92% of all CO2 emissions in 2021. This is an increase of 7% over 2020, largely due to the rebound in economic activity following the COVID-19 pandemic (U.S. EPA 2023a, 2023b)).

Figure 11: U.S. 2021 Greenhouse Gas Emissions



State GHG Inventory

ARB collects GHG emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state's progress in meeting its GHG reduction goals. Overall statewide GHG emissions declined from 2000 to 2020 despite growth in population and state economic output (Figure 12, Figure 13) (ARB 2022a).

Figure 12: California 2020 Greenhouse Gas Emissions by Economic Sector

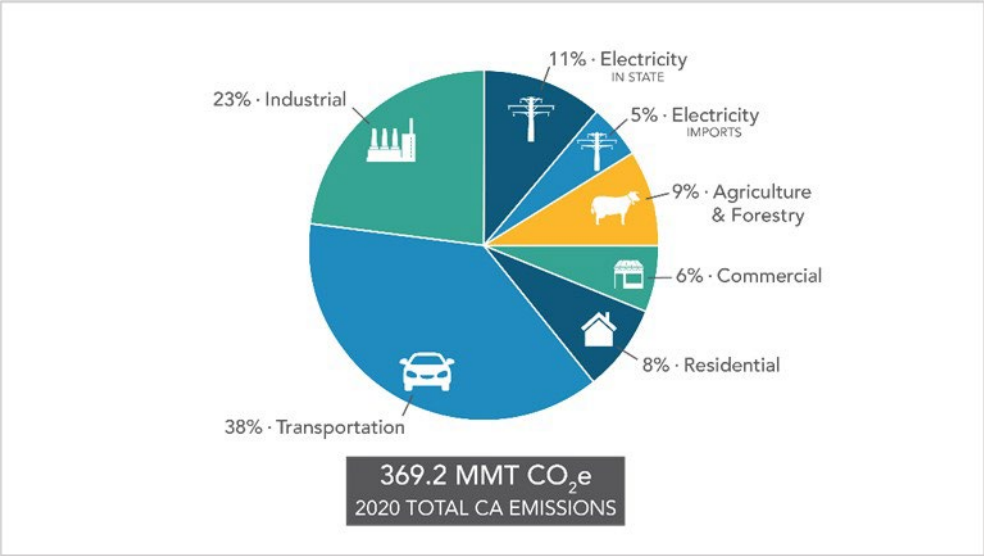
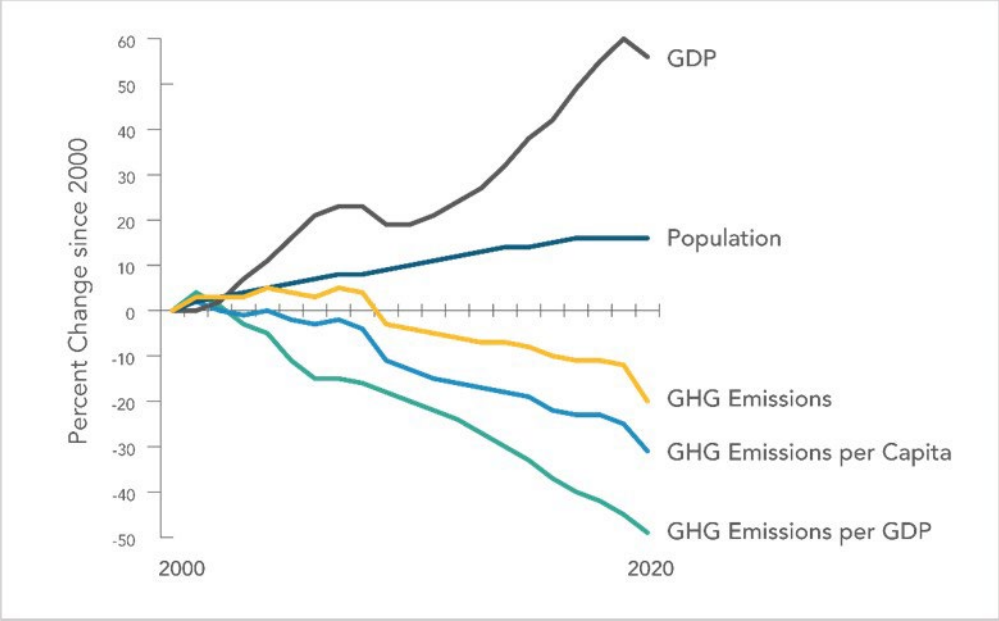


Figure 13: Change in California GDP, Population, and GHG Emissions Since 2000



AB 32 required ARB to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020, and to update it every 5 years. The AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce GHG emissions. ARB adopted the first scoping plan in 2008. The second updated plan, California's 2017 Climate Change Scoping Plan, adopted on December 14, 2017, reflects the 2030 target established in EO B-30-15 and SB 32. The 2022 Scoping Plan for Achieving Carbon Neutrality, adopted September 2022, assesses progress toward the statutory 2030 reduction goal and defines a path to reduce human-caused emissions to 85 percent below 1990 levels and achieve carbon neutrality no later than 2045, in accordance with AB 1279 (ARB 2022b).

3.4.2.2 Regional Plans

As required by The Sustainable Communities and Climate Protection Act of 2008, ARB sets regional GHG reduction targets for California's 18 metropolitan planning organizations (MPOs) to achieve through planning future projects that will cumulatively achieve those goals and reporting how they will be met in the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005. The proposed project is in the RTP/SCS for Southern California Association of Governments (SCAG). The regional reduction target for SCAG is -8% percent for the target year 2020 and -19% for the year 2035.

Connect SoCal's Sustainable Communities Strategy (SCS) summarizes SCAG's GHG reduction approach. The following are the strategies that SCAG has included and quantified to demonstrate the region's ability to meet the targets. The individual studies for each of these elements is available online from SCAG.

- Congestion Pricing
- Express Lane Pricing
- Improved Bike Infrastructure
- Infill development and increased density near transit infrastructure
- Mileage-Based User Fee
- New Transit Capital Projects
- Shorter trips through land use strategies such as jobs/housing balance
- Transportation Demand Management
- Job Center Parking Strategy (e.g. parking pricing in select centers)

- Bike Share and Micro-mobility
- Carshare
- Co-working at strategic locations
- Increased Electric Vehicle Charging Infrastructure
- Electric Vehicle Incentives
- Improved Pedestrian Infrastructure
- Multimodal Dedicated Lanes
- Safe Routes to School
- Transit/TNC Partnership Program
- Increased Average Vehicle Ridership in Job Centers
- Parking Deregulation in certain Priority Growth Areas

These strategies, measures and policies collectively result in approximately 14 percent per-capita GHG reductions using the Activity Based Model, and 5 percent reductions using off-model methodologies. SCAG collaborated with ARB throughout 2018 and 2019 as SCS Program and Evaluation Guidelines were updated by ARB in response to more ambitious per-capita GHG reduction targets. This collaboration was essential to ensuring Connect SoCal's Growth Vision aligns with state expectations. The final technical methodology was submitted to ARB after adoption of Connect SoCal.

SCAG's Program for the 2020 RTP/SCS includes ongoing GHG emission reduction and adaptation strategies in the SCAG region. Climate mitigation strategies include reducing or sequestering GHG emissions, while climate adaptation is preparing for the unavoidable impacts from climate change. Climate mitigation strategies include, but are not limited to:

- Promoting energy efficiency in buildings
- Using low carbon electricity
- Transitioning to high efficiency heating and cooling systems
- Using low carbon and alternative fuels
- Incorporating zero emission or hybrid vehicles
- Incorporating healthy community planning (active transportation)
- Increasing urban density
- Reducing automobile dependence
- Increasing transit options
- Integrating renewable energy
- Improving waste management

Climate adaptation solutions would be long term and require a shift in thinking on how communities are designed. Adaptation strategies include, but are not limited to:

- Using scarce water more efficiently
- Adapting building codes to future climate conditions and extreme weather events
- Building flood defenses and raising the levels of levees
- Developing drought tolerant crops
- Implementing urban tree planting and reforestation
- Setting aside land corridors for species migration
- Increasing collaboration on climate preparedness strategies among public agencies

California is committed to further supporting new research on ways to mitigate climate change and how to understand its ongoing and projected impacts. California's Fourth Climate Change Assessment and Indicators of Change Report will further update our understanding of the many impacts from climate change in a way that directly informs State agencies' efforts to safeguard the State's people, economy, and environment.

Pursuant to its authority under AB 32, CARB has designed and adopted a California Cap-and-Trade Program to reduce GHG emissions from major sources (deemed "covered entities") by setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve AB 32's emission-reduction mandate of returning to 1990 levels of emissions by 2020 (17 CCR Sections 95800 to 96023). Additionally, Executive Order B-32-15 works toward achieving GHG reduction targets with the California Sustainable Freight Action Plan, an integrated plan that establishes clear targets to improve freight efficiency, transition to zero-emission technologies and increase competitiveness of California's freight system.

The State is also taking steps to make the State more resilient to ongoing and projected climate impacts as laid out by the Safeguarding California Plan. The Safeguarding California Plan was updated in 2018 to present new policy recommendations and provide a roadmap of all the actions and next steps that state government is taking to adapt to the ongoing and inevitable effects of climate change. California's continuing efforts are vital steps toward minimizing the impact of GHG emissions and a three-pronged approach of reducing emissions, preparing for impacts, and conducting cutting-edge research can serve as a model for action.

This section outlines federal and state efforts to comprehensively reduce GHG emissions from transportation sources.

Federal

To date, no national standards have been established for nationwide mobile-source GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level.

The National Environmental Policy Act (NEPA) (42 United States Code [USC] Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project.

The Federal Highway Administration (FHWA) recognizes the threats that extreme weather, sea-level change, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. FHWA therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices (FHWA 2019). This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values— "the triple bottom line of sustainability" (FHWA n.d.). Program and project elements that foster sustainability and

resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life.

Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects. The most important of these was the Energy Policy and Conservation Act of 1975 (42 USC Section 6201) and Corporate Average Fuel Economy (CAFE) Standards. This act establishes fuel economy standards for on road motor vehicles sold in the United States. Compliance with federal fuel economy standards is determined through the CAFE program based on each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States.

Energy Policy Act of 2005, 109th Congress H.R.6 (2005–2006): This act sets forth an energy research and development program covering: (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) the establishment of the Office of Indian Energy Policy and Programs within the Department of Energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology.

The U.S. EPA in conjunction with the National Highway Traffic Safety Administration (NHTSA) is responsible for setting GHG emission standards for new cars and light-duty vehicles to significantly increase the fuel economy of all new passenger cars and light trucks sold in the United States. Fuel efficiency standards directly influence GHG emissions.

State

California has been innovative and proactive in addressing GHG emissions and climate change by passing multiple Senate and Assembly bills and executive orders (EOs) including, but not limited to, the following:

EO S-3-05 (June 1, 2005): The goal of this EO is to reduce California's GHG emissions to: (1) year 2000 levels by 2010, (2) year 1990 levels by 2020, and (3) 80 percent below year 1990 levels by 2050. This goal was further reinforced with the passage of Assembly Bill (AB) 32 in 2006 and Senate Bill (SB) 32 in 2016.

Assembly Bill (AB) 32, Chapter 488, 2006, Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 codified the 2020 GHG emissions reduction goals outlined in EO S-3-05, while further mandating that the California Air Resources Board (ARB) create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." The Legislature also intended that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020 (Health and Safety Code [H&SC] Section 38551(b)). The law requires ARB to adopt rules and regulations in an open public

process to achieve the maximum technologically feasible and cost-effective GHG reductions.

EO S-01-07 (January 18, 2007): This order sets forth the low carbon fuel standard (LCFS) for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by the year 2020. ARB re-adopted the LCFS regulation in September 2015, and the changes went into effect on January 1, 2016. The program establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the governor's 2030 and 2050 GHG reduction goals.

Senate Bill (SB) 375, Chapter 728, 2008, Sustainable Communities and Climate Protection:

This bill requires ARB to set regional emissions reduction targets for passenger vehicles. The Metropolitan Planning Organization (MPO) for each region must then develop a "Sustainable Communities Strategy" (SCS) that integrates transportation, land-use, and housing policies to plan how it will achieve the emissions target for its region.

SB 391, Chapter 585, 2009, California Transportation Plan: This bill requires the State's long range transportation plan to identify strategies to address California's climate change goals under AB 32.

EO B-16-12 (March 2012) orders State entities under the direction of the Governor, including ARB, the California Energy Commission, and the Public Utilities Commission, to support the rapid commercialization of zero-emission vehicles. It directs these entities to achieve various benchmarks related to zero-emission vehicles.

EO B-30-15 (April 2015) establishes an interim statewide GHG emission reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of GHG emissions to implement measures, pursuant to statutory authority, to achieve reductions of GHG emissions to meet the 2030 and 2050 GHG emissions reductions targets. It also directs ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent (MMTCO2e). Finally, it requires the Natural Resources Agency to update the state's climate adaptation strategy, Safeguarding California, every 3 years, and to ensure that its provisions are fully implemented.

SB 32, Chapter 249, 2016, codifies the GHG reduction targets established in EO B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.

SB 1386, Chapter 545, 2016, declared "it to be the policy of the state that the protection and management of natural and working lands … is an important strategy in meeting the state's greenhouse gas reduction goals, and would require all state agencies, departments, boards, and commissions to consider this policy when revising, adopting,

or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands."

AB 134, Chapter 254, 2017, allocates Greenhouse Gas Reduction Funds and other sources to various clean vehicle programs, demonstration/pilot projects, clean vehicle rebates and projects, and other emissions-reduction programs statewide.

SB 743, Chapter 386 (September 2013): This bill changes the metric of consideration for transportation impacts pursuant to CEQA from a focus on automobile delay to alternative methods focused on vehicle miles traveled, to promote the state's goals of reducing greenhouse gas emissions and traffic related air pollution and promoting multimodal transportation while balancing the needs of congestion management and safety.

SB 150, Chapter 150, 2017, Regional Transportation Plans: This bill requires ARB to prepare a report that assesses progress made by each metropolitan planning organization in meeting their established regional greenhouse gas emission reduction targets.

EO B-55-18 (September 2018) sets a new statewide goal to achieve and maintain carbon neutrality no later than 2045. This goal is in addition to existing statewide targets of reducing GHG emissions.

EO N-19-19 (September 2019) advances California's climate goals in part by directing the California State Transportation Agency to leverage annual transportation spending to reverse the trend of increased fuel consumption and reduce GHG emissions from the transportation sector. It orders a focus on transportation investments near housing, managing congestion, and encouraging alternatives to driving. This EO also directs ARB to encourage automakers to produce more clean vehicles, formulate ways to help Californians purchase them, and propose strategies to increase demand for zero-emission vehicles.

Some regional and local greenhouse gas reduction plans include the following actions as described in the Los Angeles County Community Climate Action Plan 2020:

LUT-10 Efficient Goods Movement Support regional efforts to maximize the efficiency of the goods movement system throughout the unincorporated areas.

LUT-11 Sustainable Pavements Program Reduce energy consumption and waste generation associated with pavement maintenance and rehabilitation.

LUT-12 Electrify Construction and Landscaping Equipment Utilize electric equipment wherever feasible for construction projects. Reduce the use of gas-powered landscaping equipment.

WAW-1 Per Capita Water Use Reduction Goal Meet the State established per capita water use reduction goal, as identified by SB X7-7 for 2020.

WAW-2 Recycled Water Use, Water Supply Improvement Programs, and Storm Water Runoff Promote the use of wastewater and gray water to be used for agricultural, industrial, and irrigation purposes. Manage stormwater, reduce potential treatment, and protect local groundwater supplies.

SW-1 Waste Diversion Goal for the County's unincorporated areas, adopt a waste diversion goal to comply with all state mandates associated with diverting from landfill disposal at least 75% of the waste by 2020.

LC-1 Develop Urban Forests Support and expand urban forest programs within the unincorporated areas.

LC-2 Create New Vegetated Open Space Restore and re-vegetate previously disturbed land and/or unused urban and suburban areas.

LC-3 Promote the Sale of Locally Grown Foods and/or Products Establish local farmers markets and support locally grown food.

LC-4 Protect Conservation Areas Encourage the protection of existing land conservation areas.

BE-1 Green Building Development

BE-2 Energy Efficiency Programs

BE-3 Solar Installations

BE-6 Energy Efficiency Retrofits of Wastewater Equipment

LUT-3 Transit Expansion

LUT-5 Car-Sharing Program

LUT-8 Electric Vehicle Infrastructure

LUT-12 Construction Equipment Electrification

3.4.3 Project Analysis

GHG emissions from transportation projects can be divided into those produced during operation and use of the State Highway System (SHS) (operational emissions) and those produced during construction. The primary GHGs produced by the transportation sector are CO2, CH4, N2O, and HFCs. CO2 emissions are a product of burning gasoline or diesel fuel in internal combustion engines, along with relatively small amounts of CH4 and N2O. A small amount of HFC emissions related to refrigeration is also included in the transportation sector. (GHGs differ in how much heat each traps in the atmosphere, called global warming potential, or GWP. CO2 is the most important GHG, so amounts of other gases are expressed relative to CO2, using a metric called "carbon dioxide equivalent", or CO2e. The global warming potential of CO2 is assigned a value of 1, and the GWP of other gases is assessed as multiples of CO2.)

The CEQA Guidelines generally address greenhouse gas emissions as a cumulative impact due to the global nature of climate change (Pub. Resources Code, § 21083(b)(2)). As the California Supreme Court explained, "because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself." (Cleveland National Forest Foundation v. San Diego Assn. of Governments (2017) 3 Cal.5th 497, 512.) In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (CEQA Guidelines Sections 15064(h)(1) and 15130).

To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. Although climate change is ultimately a cumulative impact, not every individual project that emits greenhouse gases must necessarily be found to contribute to a significant cumulative impact on the environment.

3.4.3.1 Operational Emissions

The purpose of the proposed project is to improve operations, safety, and upgrade assets to current standards, which will not increase the vehicle capacity of the roadway. This type of Project generally causes minimal or no increase in operational GHG emissions. Because the project would not increase the number of travel lanes on route 110, no increase in vehicle miles traveled (VMT) would occur. While some GHG emissions during the construction period would be unavoidable, no increase in operational GHG emissions is expected.

3.4.3.2 Construction Emissions

Construction GHG emissions would result from material processing and transportation, on-site construction equipment, and traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases. While construction GHG emissions are only produced for a short time, they have long-term effects in the atmosphere, so cannot be considered “temporary” in the same way as criteria pollutants that subside after construction is completed.

Use of long-life pavement, improved traffic management plans, and changes in materials can also help offset GHG emissions produced during construction by allowing longer intervals between maintenance and rehabilitation activities.

GHG-1 MIN: It is recommended that the PDT review, evaluate, and consider project measures in Tables 1 and 3 of the Toolbox GHG reduction measures Toolbox and that the projects commit to include all feasible and relevant measures identified from the Tables. If any measures are proposed outside the Tables in the Toolbox, the PDT shall ensure that those measures are biddable, buildable, and can be successfully implemented. All identified reduction measures shall be carried forward in the ECR.

GHG-2 MIN: Limit idling to 5 minutes for delivery and dump trucks and other diesel-powered equipment.

GHG-3 MIN: Schedule truck trips outside of peak morning and evening commute hours.

GHG-4 MIN: For improved fuel efficiency from construction equipment:

- Maintain equipment in proper tune and working condition
- Use right sized equipment for the job
- Use equipment with new technologies

GHG-5 MIN: Use alternative fuels such as renewable diesel for construction equipment whenever possible.

GHG-6 MIN: Salvage rebar from demolished concrete and process waste to create usable fill.

GHG-7 MIN: Maximize use of recycled materials (tire rubber for example).

GHG-8 MIN: Reduce construction waste. For example, reuse or recycle construction and demolition waste (reduces consumption of raw materials, reducing waste and transportation to landfill; saves costs).

GHG-9 MIN: Use recycled water or reduce consumption of potable water for construction.

GHG-10 MIN: All construction contracts include Caltrans Standard Specifications related to air quality. Section 7-1.02A and 7 1.02C, Emissions Reduction, requires contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all ARB emission reduction regulations. Section 14-9.02, Air Pollution Control, requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions. Further, NSSP 14-19.05 will need to be incorporated into the PS&E Package.

TR-1 MIN: A Transportation Management Plan (TMP) will be prepared and implemented for the project during the construction phase of the project, which will include public information, motorist information, incident management, construction, demand management, and alternate routes or detours.

TR-3 MIN: Prior to construction, coordination would be conducted with public transportation agencies to provide rerouting information, including operating schedules, to the public at least one month in advance of any service disruptions.

3.4.3.3 CEQA Conclusion

Caltrans is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following section.

The proposed project is not anticipated to result in increase in operational GHG emissions as no additional roadway capacity will be added. However, per Governor's Executive Order B-30-15, Caltrans requires that construction GHG emissions be quantified. Caltrans completed an estimate of construction emissions based on construction activities data in the project initiation documents. Please refer to Section 2.3.5 Air Quality for details.

3.4.4 Greenhouse Gas Reduction Strategies

Senate Bill 1 Section 2030(e) directs Caltrans "To the extent deemed cost effective, and where feasible, in the context of both the project scope and the risk level for the asset due to global climate change to better adapt the asset to withstand the negative effects of climate change and make the asset more resilient to impacts such as fires, floods, and sea level rise." In response, Caltrans Division of Environmental Analysis, Office of Environmental Management, developed a GHG Reduction Measures Toolbox GHG reduction measures Toolbox (ca.gov) for use in project development.

3.4.4.1 Statewide Efforts

In response to Assembly Bill 32, the Global Warming Solutions Act, California is implementing measures to achieve emission reductions of GHGs that cause climate change. Climate change programs in California are effectively reducing GHG emissions from all sectors of the economy. These programs include regulations, market programs, and incentives that will transform transportation, industry, fuels, and other sectors to take California into a sustainable, cleaner, low-carbon future, while maintaining a robust economy (ARB 2022c).

Major sectors of the California economy, including transportation, will need to reduce emissions to meet 2030 and 2050 GHG emissions targets. The Governor's Office of Planning and Research identified five sustainability pillars in a 2015 report: (1) Increasing the share of renewable energy in the State's energy mix to at least 50 percent by 2030; (2) Reducing petroleum use by up to 50 percent by 2030; (3) Increasing the energy efficiency of existing buildings by 50 percent by 2030; (4) Reducing emissions of short-lived climate pollutants; and (5) Stewarding natural resources, including forests, working lands, and wetlands, to ensure that they store carbon, are resilient, and enhance other environmental benefits (OPR 2015).

The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled (VMT). Reducing today's petroleum use in cars and trucks is a key state goal for reducing greenhouse gas emissions by 2030 (California Environmental Protection Agency 2015).

In addition, SB 1386 (Wolk 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that policy in their own decision making. Trees and vegetation on forests, rangelands, farms, and wetlands remove carbon dioxide from the atmosphere through biological processes and sequester the carbon in above- and below-ground matter.

Subsequently, Governor Gavin Newsom issued Executive Order N-82-20 to combat the crises in climate change and biodiversity. It instructs state agencies to use existing authorities and resources to identify and implement near- and long-term actions to accelerate natural removal of carbon and build climate resilience in our forests, wetlands, urban greenspaces, agricultural soils, and land conservation activities in ways that serve all communities and in particular low-income, disadvantaged, and vulnerable communities. To support this order, the California Natural Resources Agency released Natural and Working Lands Climate Smart Strategy (California Natural Resources Agency 2022).

3.4.4.2 Caltrans Activities

Caltrans continues to be involved on the Governor's Climate Action Team as the ARB works to implement EOs S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. EO B-30-15, issued in April 2015, and SB 32 (2016), set an interim target to cut GHG emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

Climate Action Plan for Transportation Infrastructure

The California Action Plan for Transportation Infrastructure (CAPTI) builds on executive orders signed by Governor Newsom in 2019 and 2020 targeted at reducing GHG emissions in transportation, which account for more than 40 percent of all polluting emissions, to reach the state's climate goals. Under CAPTI, where feasible and within existing funding program structures, the state will invest discretionary transportation funds in sustainable infrastructure projects that align with its climate, health, and social equity goals (California State Transportation Agency 2021).

California Transportation Plan

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. It serves as an umbrella document for all the other statewide transportation planning documents. The CTP 2050 presents a vision of a safe, resilient, and universally accessible transportation system that supports vibrant communities, advances racial and economic justice, and improves public and environmental health. The plan's climate goal is to achieve statewide GHG emissions reduction targets and increase resilience to climate change. It demonstrates how GHG emissions from the transportation sector can be reduced through advancements in clean fuel technologies; continued shifts toward active travel, transit, and shared mobility; more efficient land use and development practices; and continued shifts to telework (Caltrans 2021a).

Caltrans Strategic Plan

The Caltrans 2020–2024 Strategic Plan includes goals of stewardship, climate action, and equity. Climate action strategies include developing and implementing a Caltrans Climate Action Plan; a robust program of climate action education, training, and outreach; partnership and collaboration; a VMT monitoring and reduction program; and engaging with the most vulnerable communities in developing and implementing Caltrans climate action activities (Caltrans 2021b).

Caltrans Policy Directives and Other Initiatives

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) established a policy to ensure coordinated efforts to incorporate climate change into Caltrans decisions and activities. Other Director's policies promote energy efficiency, conservation, and climate change, and commit Caltrans to sustainability practices in all planning, maintenance, and operations. Caltrans Greenhouse Gas Emissions and Mitigation Report (Caltrans 2020) provides a comprehensive overview of Caltrans' emissions and current Caltrans procedures and activities that track and reduce GHG emissions. It identifies additional opportunities for further reducing GHG emissions from Department-controlled emission sources, in support of Caltrans and State goals.

3.4.4.3 Project-Level GHG Reduction Strategies

The following measures will also be implemented in the project to reduce GHG emissions and potential climate change impacts from the project.

AQ-1 MIN: Objectionable odors should also be minimized by conducting certain construction activities in areas at least 500 feet from the sensitive receptors as feasible. As part of review of design plans and specifications, the AQB will also coordinate for approval of a nonstandard special provision (NSSP) 14-9.05 to mandate contractors' compliance with the applicable air district rules including measures related to dust control.

GHG-1 MIN: It is recommended that the PDT review, evaluate, and consider project measures in Tables 1 and 3 of the Toolbox GHG reduction measures Toolbox and that the projects commit to include all feasible and relevant measures identified from the Tables. If any measures are proposed outside the Tables in the Toolbox, the PDT shall ensure that those measures are biddable, buildable, and can be successfully implemented. All identified reduction measures shall be carried forward in the ECR.

GHG-2 MIN: Limit idling to 5 minutes for delivery and dump trucks and other diesel-powered equipment.

GHG-3 MIN: Schedule truck trips outside of peak morning and evening commute hours.

GHG-4 MIN: For improved fuel efficiency from construction equipment:

- Maintain equipment in proper tune and working condition
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GHG-5 MIN: Use alternative fuels such as renewable diesel for construction equipment whenever possible.

GHG-6 MIN: Salvage rebar from demolished concrete and process waste to create usable fill.

GHG-7 MIN: Maximize use of recycled materials (tire rubber for example).

GHG-8 MIN: Reduce construction waste. For example, reuse or recycle construction and demolition waste (reduces consumption of raw materials, reducing waste and transportation to landfill; saves costs).

GHG-9 MIN: Use recycled water or reduce consumption of potable water for construction.

GHG-10 MIN: All construction contracts include Caltrans Standard Specifications related to air quality. Section 7-1.02A and 7 1.02C, Emissions Reduction, requires contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all ARB emission reduction regulations. Section 14-9.02, Air Pollution Control, requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions.

TR-1 MIN: A Transportation Management Plan (TMP) will be prepared and implemented for the project during the construction phase of the project, which will include public information, motorist information, incident management, construction, demand management, and alternate routes or detours.

TR-3 MIN: Prior to construction, coordination would be conducted with public transportation agencies to provide rerouting information, including operating schedules, to the public at least one month in advance of any service disruptions.

3.4.5 Adaptation

Reducing GHG emissions is only one part of an approach to addressing climate change. Caltrans must plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and in the frequency and intensity of wildfires. Flooding and erosion can damage or wash out roads; longer periods of intense heat can buckle pavement and railroad tracks; storm surges combined with a rising sea level can inundate highways. Wildfire can directly burn facilities and indirectly cause damage when rain falls on denuded slopes that landslide after a fire. Effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. Furthermore, the combined effects of transportation projects and climate stressors can exacerbate the impacts of both on vulnerable communities in a project area. Accordingly, Caltrans must consider these types of climate stressors in how highways are planned, designed, built, operated, and maintained.

3.4.5.1 Federal Efforts

Under NEPA Assignment, Caltrans is obligated to comply with all applicable federal environmental laws and FHWA NEPA regulations, policies, and guidance. Caltrans practices generally align with the 2023 CEQ interim Guidance on Consideration of Greenhouse Gas Emissions and Climate Change, which offers recommendations for additional ways of evaluating project effects related to GHG emissions and climate change. These recommendations are not regulatory requirements.

The Fifth National Climate Assessment, published in 2023, presents the most recent science and "analyzes the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity; [It] analyzes current trends in global change, both human-induced and natural, and projects major trends for the subsequent 25 to 100 years … to support informed decision-making across the United States." Building on previous assessments, it continues to advance "an inclusive, diverse, and sustained process for assessing and communicating scientific knowledge on the impacts, risks, and vulnerabilities associated with a changing global climate" (U.S. Global Change Research Program 2023).

The U.S. Department of Transportation recognizes the transportation sector's major contribution of GHGs that cause climate change and has made climate action one of the department's top priorities (U.S. DOT 2023). FHWA's policy is to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. FHWA has developed guidance and tools for transportation planning that fosters resilience to climate effects and sustainability at the federal, state, and local levels (FHWA 2022).

The National Oceanic and Atmospheric Administration provides sea level rise projections for all U.S. coastal waters to help communities and decision makers assess their risk from sea level rise. Updated projections through 2150 were released in 2022 in a report and online tool (NOAA 2022).

3.4.5.2 State Efforts

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system. A number of state policies and tools have been developed to guide adaptation efforts.

California's Fourth Climate Change Assessment (Fourth Assessment) (2018) provides information to help decision makers across sectors and at state, regional, and local scales protect and build the resilience of the state's people, infrastructure, natural systems, working lands, and waters. The Fourth Assessment reported that if no measures are taken to reduce GHG emissions by 2021 or sooner, the state is projected to experience an up to 8.8 degrees Fahrenheit increase in average annual maximum daily temperatures; a two-thirds decline in water supply from snowpack resulting in water shortages; a 77% increase in average area burned by wildfire; and large-scale

erosion of up to 67% of Southern California beaches due to sea level rise. These effects will have profound impacts on infrastructure, agriculture, energy demand, natural systems, communities, and public health (State of California 2018).

Sea level rise is a particular concern for transportation infrastructure in the coastal zone. Major urban airports will be at risk of flooding from sea level rise combined with storm surge as early as 2040; San Francisco airport is already at risk. Miles of coastal highways vulnerable to flooding in a 100-year storm event will triple to 370 by 2100, and 3,750 miles will be exposed to temporary flooding. The Fourth Assessment's findings highlight the need for proactive action to address these current and future impacts of climate change.

To help actors throughout the state address the findings of California's Fourth Climate Change Assessment, AB 2800's multidisciplinary Climate-Safe Infrastructure Working Group published Paying it Forward: The Path Toward Climate-Safe Infrastructure in California. This report provides guidance on assessing risk in the face of inherent uncertainties still posed by the best available climate change science. It also examines how state agencies can use infrastructure planning, design, and implementation processes to respond to the observed and anticipated climate change impacts (Climate-Safe Infrastructure Working Group 2018).

EO S-13-08, issued in 2008, directed state agencies to consider sea level rise scenarios for 2050 and 2100 during planning to assess project vulnerabilities, reduce risks, and increase resilience to sea level rise. It gave rise to the 2009 California Climate Adaptation Strategy, the Safeguarding California Plan, and a series of technical reports on statewide sea level rise projections and risks, including the State of California Sea-Level Rise Guidance Update in 2018. The reports addressed the full range of climate change impacts and recommended adaptation strategies. The current California Climate Adaptation Strategy incorporates key elements of the latest sector-specific plans such as the Natural and Working Lands Climate Smart Strategy, Wildfire and Forest Resilience Action Plan, Water Resilience Portfolio, and the CAPTI (described above). Priorities in the 2023 California Climate Adaptation Strategy include acting in partnership with California Native American Tribes, strengthening protections for climate-vulnerable communities that lack capacity and resources, implementing nature-based climate solutions, using best available climate science, and partnering and collaboration to best leverage resources (California Natural Resources Agency 2023).

EO B-30-15 recognizes that effects of climate change threaten California's infrastructure and requires state agencies to factor climate change into all planning and investment decisions. Under this EO, the Office of Planning and Research published Planning and Investing for a Resilient California: A Guidebook for State Agencies, to encourage a uniform and systematic approach to building resilience.

SB 1 Coastal Resources: Sea Level Rise (Atkins 2021) established statewide goals to "anticipate, assess, plan for, and, to the extent feasible, avoid, minimize, and mitigate the adverse environmental and economic effects of sea level rise within the coastal zone." As the legislation directed, the Ocean Protection Council collaborated with 17

state planning and coastal management agencies to develop the State Agency Sea-Level Rise Action Plan for California in February 2022. This plan promotes coordinated actions by state agencies to enhance California's resilience to the impacts of sea level rise (California Ocean Protection Council 2022).

3.4.5.3 Caltrans Adaptation Efforts

Caltrans Vulnerability Assessments

Caltrans completed climate change vulnerability assessments to identify segments of the State Highway System vulnerable to climate change effects of precipitation, temperature, wildfire, storm surge, and sea level rise.

The climate change data in the assessments were developed in coordination with climate change scientists and experts at federal, state, and regional organizations at the forefront of climate science. The findings of the vulnerability assessments guide analysis of at-risk assets and development of Adaptation Priority Reports as a method to make capital programming decisions to address identified risks.

Caltrans Sustainability Programs

The Director’s Office of Equity, Sustainability and Tribal Affairs supports implementation of sustainable practices at Caltrans. The Sustainability Roadmap is a periodic progress report and plan for meeting the Governor’s sustainability goals related to EOs B-16-12, B-18-12, and B-30-15. The roadmap includes designing new buildings for climate change resilience and zero-net energy, and replacing fleet vehicles with zero-emission vehicles (Caltrans 2023).

3.4.5.4 Project Adaptation Analysis

Sea Level Rise

Sea level rise represents a long-term threat to coastal areas like District 7, which covers an extensive coastline. Sea level rise will exacerbate the flooding and inundation that already occur across the district during regular storm or tidal events. District 7 is especially concerned about the PCH on the South Coast of Ventura County and US-101 on the North Coast, as they are vulnerable to flooding under current conditions.

Like other forecasted changes in climate, the projected timing of sea level rise varies, depending in part on the assumptions made regarding future concentrations of GHGs and how the Earth’s systems will respond. The State of California Sea Level Rise Guidance: 2018 Update provides the most recently developed sea level rise projections for locations across the California coastline and direction on how to use them in decision-making. Figure 14 shows some examples.

Figure 14: Sea Level Rise Estimate

SEA LEVEL RISE ESTIMATED FOR DISTRICT 7

Estimates of sea level rise have been developed for California by various agencies and research institutions. The graph on the right reflects estimates recently developed for Los Angeles by a scientific panel for the 2018 Update of the State of California Sea-Level Rise Guidance, an effort led by the Ocean Protection Council (OPC).[33] These projections were developed for gauges along the California coast based on global and local factors that drive sea level rise such as thermal expansion of ocean water, glacial ice melt, and the expected amount of vertical land movement.

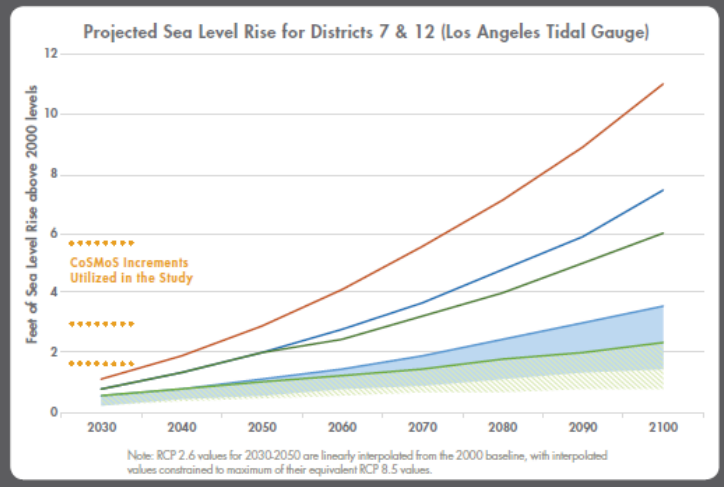
Sea level rise projection scenarios presented in the OPC guidance identify several values or ranges, including:

- A median (50%) probability scenario
- A likely (66%) probability scenario
- A 1-in-20 (5%) probability scenario
- A low (0.5%) probability scenario
- An extreme (H++) scenario to be considered when planning for critical or highly vulnerable assets with a long lifespan

Each of these values are presented for low (RCP 2.6) and high (RCP 8.5) emissions scenarios to provide information on the full range of potential projections over time. The OPC recommends using only RCP 8.5 for projects that have a lifespan to 2050, and using both scenarios for projects with longer lifespans. The OPC also recommends assessing a range of future projections before making decisions on projects, given the uncertainty inherent in modeling inputs. Guidance is provided for when best to consider certain projections, given the risks associated with projects of varying type:

- **For low risk aversion decisions**, the OPC recommends using the likely (66%) probability sea level rise range. In the graphic to the right, this range is shaded in light blue for the RCP 8.5 scenario and is shaded in light green for RCP 2.6.
- **For medium to high risk aversion decisions**, the OPC recommends using the low (0.5%) probability scenario. This value is shown in dark green for RCP 2.6 and in dark blue for RCP 8.5 in the graphic to the right.
- **For high risk aversion decisions**, the OPC recommends considering the extreme (H++) scenario. This projection is shown in dark orange in the graphic to the right.

This guidance was developed by the OPC to help state and local governments understand future risks associated with sea level rise and incorporate these projections into work efforts, investment decisions, and policy mechanisms. The OPC recognizes that the science surrounding sea level rise projections is still improving and anticipates updating their guidance at least every five years. Given that new findings are inevitable, Caltrans will use best-available sea level rise modeling, projections, and guidance as the science evolves over time, and will be working in the coming months to define how this data is incorporated into capital investment decisions.

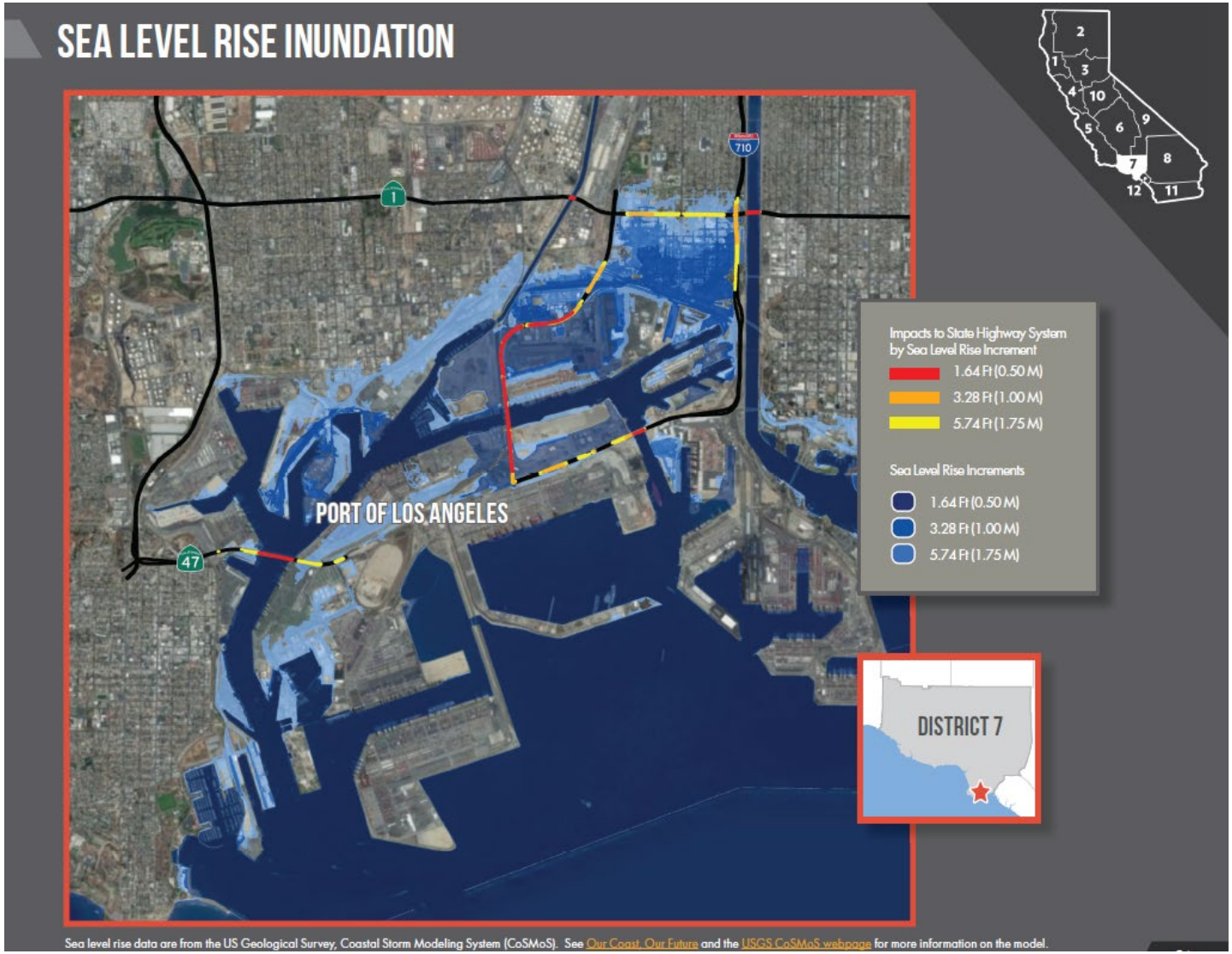


33 - California Ocean Protection Council, State of California Sea-Level Rise Guidance: 2018 Update, March 14, 2018, http://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20180314/Item3_Exhibit-A_OPC_SLR_Guidance-rd3.pdf

The projections were used and paired with sea level rise heights modeled by the Coastal Storm Modeling System (CoSMoS). The United States Geological Survey (USGS) developed CoSMoS to model the potential inundation from sea level rise and storm surge using sea level heights ranging from 1.64 feet (0.50 meters) to 16.40 feet (5.00 meters). The data was developed to model sea level rise and storm surge beyond the average daily high tide for most of the California coast and within the San Francisco Bay. The District 7 analysis also includes cliff retreat data created by the CoSMoS model for portions of Southern California.

The Port of Los Angeles was chosen to demonstrate how rising seas can affect multiple District 7 highways see Figure 15. The image to the right shows that Route 47, Interstate 710, and the PCH all merge at the Port and are exposed to future sea level rise. The red sections are exposed to 1.64 feet (0.50 meters) of sea level rise, orange sections are exposed to 3.28 feet (1.00 meters), and yellow sections are not exposed until 5.74 feet (1.75 meters) of rise. It is important to note that some of the red sections (exposed to 1.64 feet) may be bridges or elevated roadways. However, these areas could become exposed to increased scour or erosion, and future analysis could still be necessary. Connections to the Port are significant for movement of goods and it will be essential for District 7 to mitigate this risk to these highways.

Figure 15: Sea Level Rise



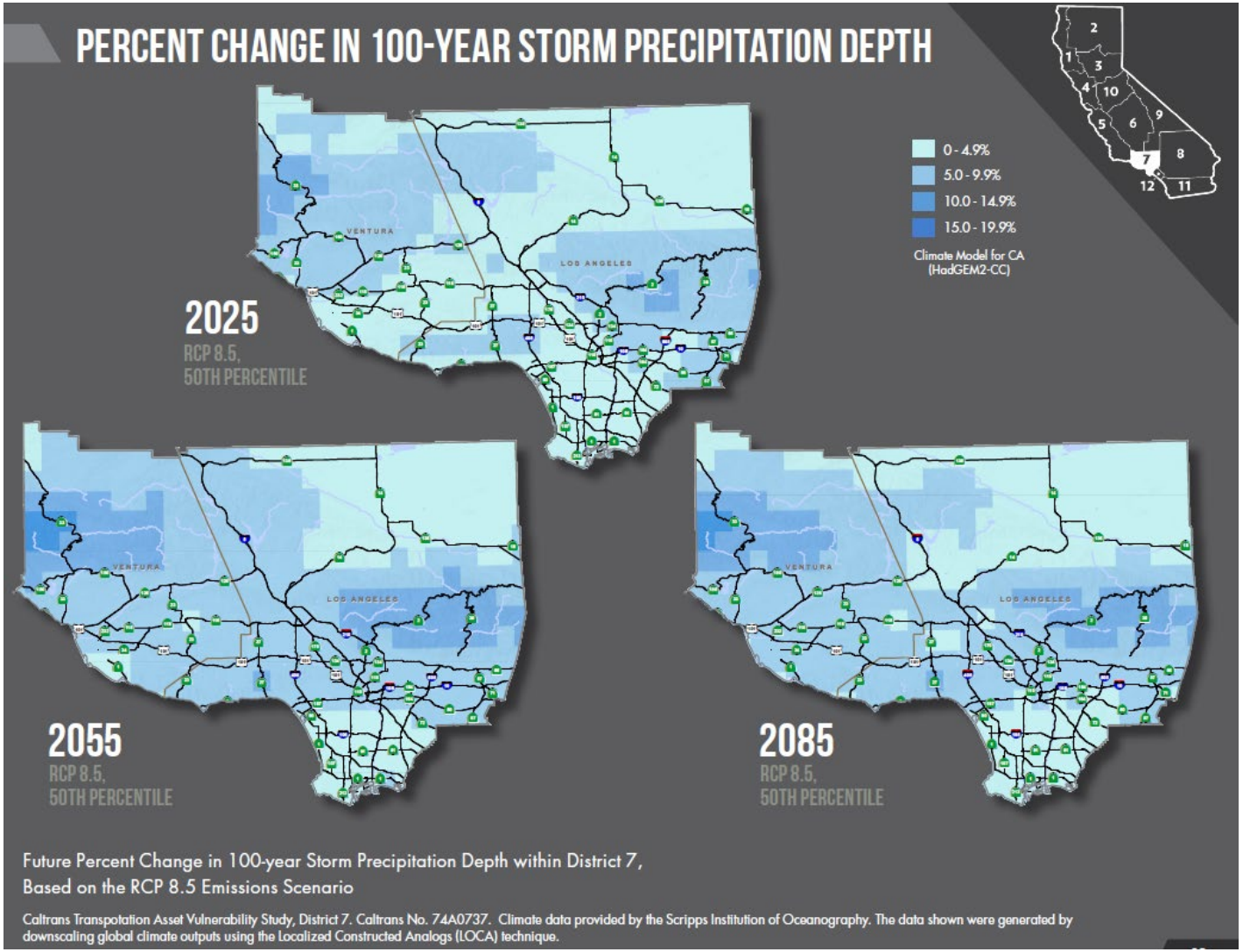
The proposed project is outside the coastal zone and not in an area subject to sea level rise. Accordingly, direct impacts to transportation facilities due to projected sea level rise are not expected.

Precipitation and Flooding

Atmospheric energy and moisture increases caused by increasing temperatures are expected to change the nature of precipitation events in California. Increasingly intense storms, combined with other changes in land use and land cover, can raise the risk of damage or loss from flooding. Precipitation affects California's transportation assets in many ways, including structural damage, flooding, landslides, washouts, and erosion. A major threat to transportation assets comes not from a higher overall volume of rainfall over time, but rather from more frequent and larger storm events and their potential for damaging the State Highway System.

The University of California's Scripps Institution of Oceanography has projected future rainfall data to the year 2100 using two different GHG emission scenarios and a variety of models. A "100-year storm event" (a storm with a likelihood of occurring once every 100 years or a one percent chance of occurring in any given year) is one useful way to examine this data. A 100-year storm could cause significant damage, so it is a good design standard for infrastructure projects (see Figure 16). Understanding how the 100-year storm may change in the future can help Caltrans build more resilient infrastructure. See the Figure 6 for the percentage increase in the 100-year storm depth across District 7.

Figure 16: Percent Change in 100-Year Strom

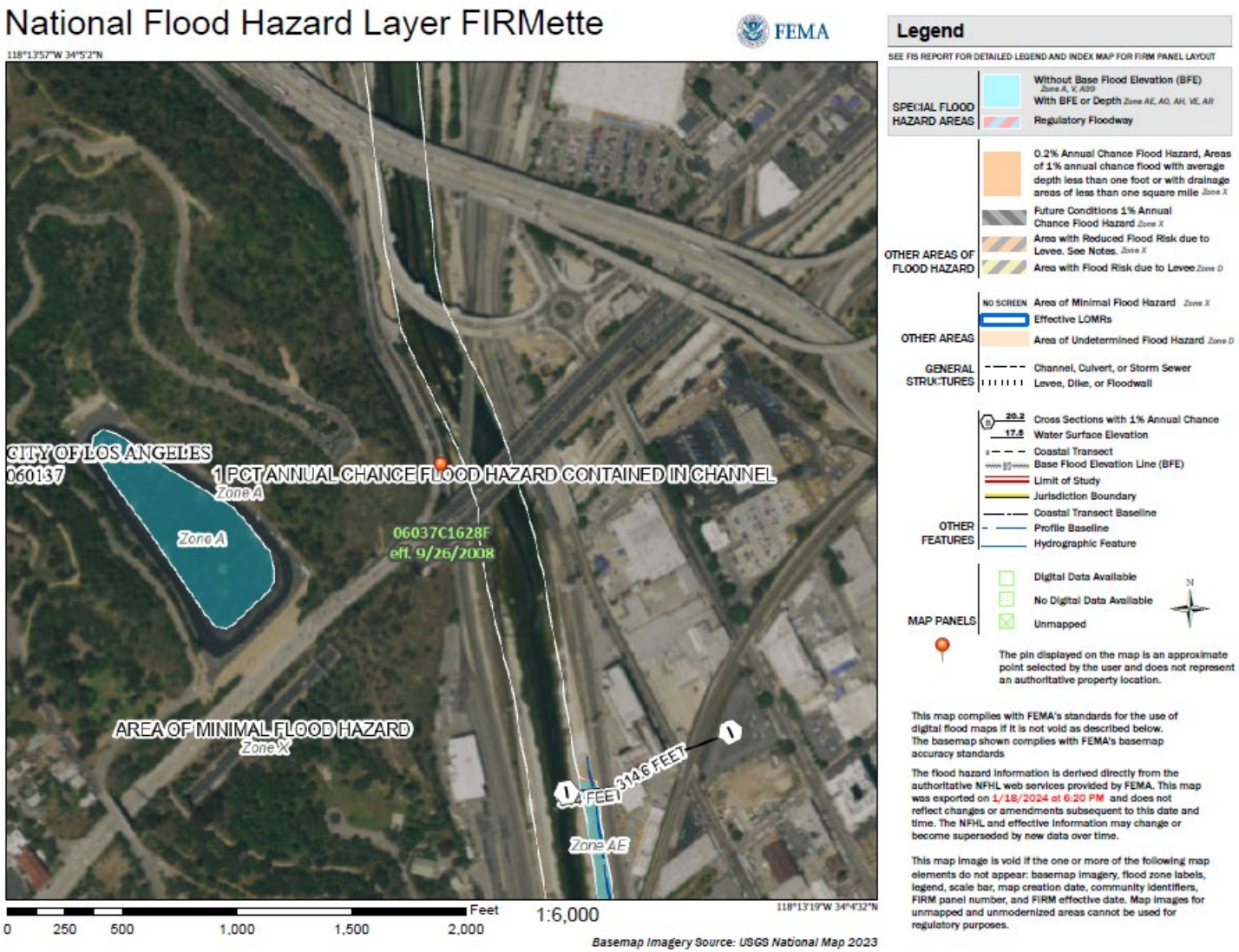


The maps of 100-year storm depth change for District 7 show the midrange of predicted precipitation increase. These projections of the 100-year storm do not account for changes to sea level rise—sea level rise and storm surge are discussed in the “Storm Surge” section. Projecting precipitation changes in California is complicated, and it is difficult to say exactly how and where rain events will occur. However, based on the available data, District 7 will have the greatest increase in 100-year storm depth in the Angeles and Los Padres National Forest regions. The expected trend is that the 100-year storm precipitation depth will increase over the coming century by anywhere from 0 to 20% in District 7.

The proposed project is in the FEMA flood map number 06037C1628F (see Figure 17). The flood map for this location has a status of “Flood zone (Zone X)”. and is in 0.2 % Flood a non-flood hazard area.

Hydrology and/or floodplain will not be impacted because of the proposed project. Impacts to the river or creek is not anticipated.

Figure 17: FEMA Map



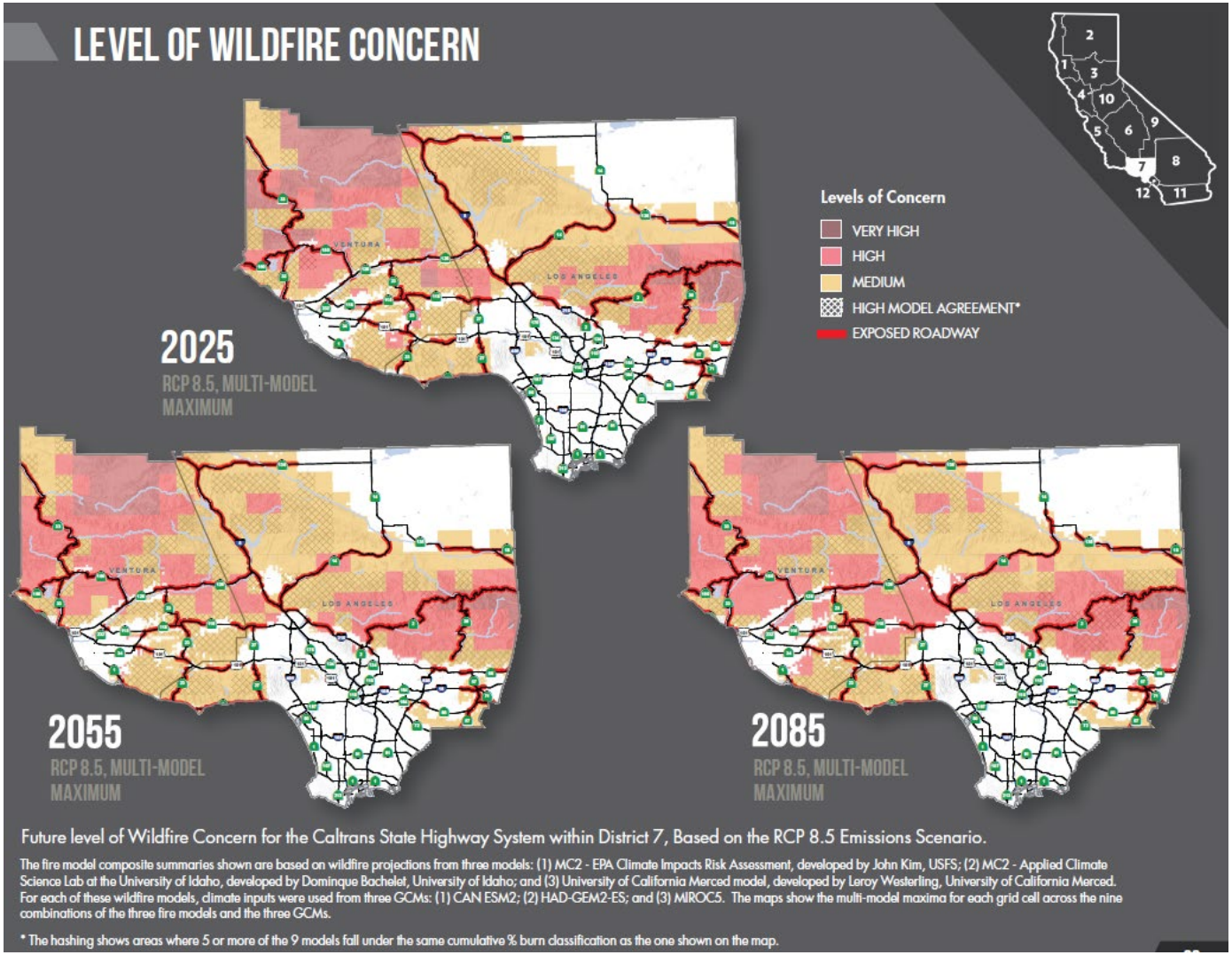
The project is located at 110 NB connector to I-5 NB close to Los Angeles River. Water flows from NB 110 to connector and ends in a low point of the connector, which then enters the LA river. In general, the water flows downhill in the northern direction. No impacts are anticipated as a result of the project to the Los Angeles River or the Arroyo Seco Channel.

Wildfire

Changing precipitation patterns and higher temperatures will likely influence both the intensity and scale of wildfires. Higher temperatures can lead to increased wildfire risk by decreasing the moisture in soils and vegetation—wildfires can then contribute to landslide and flooding by burning off protective land cover and reducing the capacity of the underlying soils to absorb rainfall. California is already prone to serious wildfires—the results of climate forecasts suggests that this vulnerability will get worse. To address these concerns, Governor Jerry Brown announced in May 2018 a new fund to support forest management and reduce wildfire risk. Governor Newsom later issued an Executive Order (N-05-19) to create a task force to develop a community education and resilience campaign and provide the Governor with immediate-, mid-, and long-term suggestions to prevent destructive and deadly wildfires.

Figure 10's red-shaded areas indicate an increased likelihood of wildfires based on projected percentages of area burned over time. These projections were generated using data from the MC2 – EPA (from the United States Forest Service), MC2 – Applied Climate Science Lab (University of Idaho), and the Cal-Adapt 2.0 (UC Merced) wildfire models. Individual models were paired with three downscaled global climate models to produce nine future scenarios. Starting with three different wildfire models was a conservative methodology because final data shows the highest wildfire risk categorization of all model results. RCP 8.5 (the high-emissions scenario) results are shown in Figure 18.

Figure 18: Level of Wildfire



The Project is not located within or near high fire hazards severity zones.

Temperature

Guidance from the US National Climate Assessment states that the “number of extremely hot days is projected to continue to increase over much of the United States, especially by late century. Summer temperatures are projected to continue rising, and a reduction of soil moisture, which exacerbates heat waves, is projected for much of the western and central US in summer.”22 Due to California’s size, and its many highly varied climate zones, temperatures are expected to rise in varying degrees across the state. The figure on the following page illustrates the average maximum temperature change over seven consecutive days (an important element for determining the best pavement mix for long-term performance) for three time periods, compared to a historical backcasted period from 1975 to 2004. US studies have generally found that increasing temperatures could impact the transportation system in several ways, including:

Design

• Ground conditions and water saturation levels can affect foundations and retaining walls.

• High temperatures over long periods of time can deform materials (including by pavement heave and track buckling). Pavement designs must consider high temperatures to mitigate future deterioration.

Operations and Maintenance

• High temperatures for extended periods could increase the need for protected transit facilities along roadways.

• Extreme heat events could affect worker health and safety, especially for those working outdoors for long hours.

• Vegetation and right-of-way landscaping must be able to survive longer periods of high temperatures.

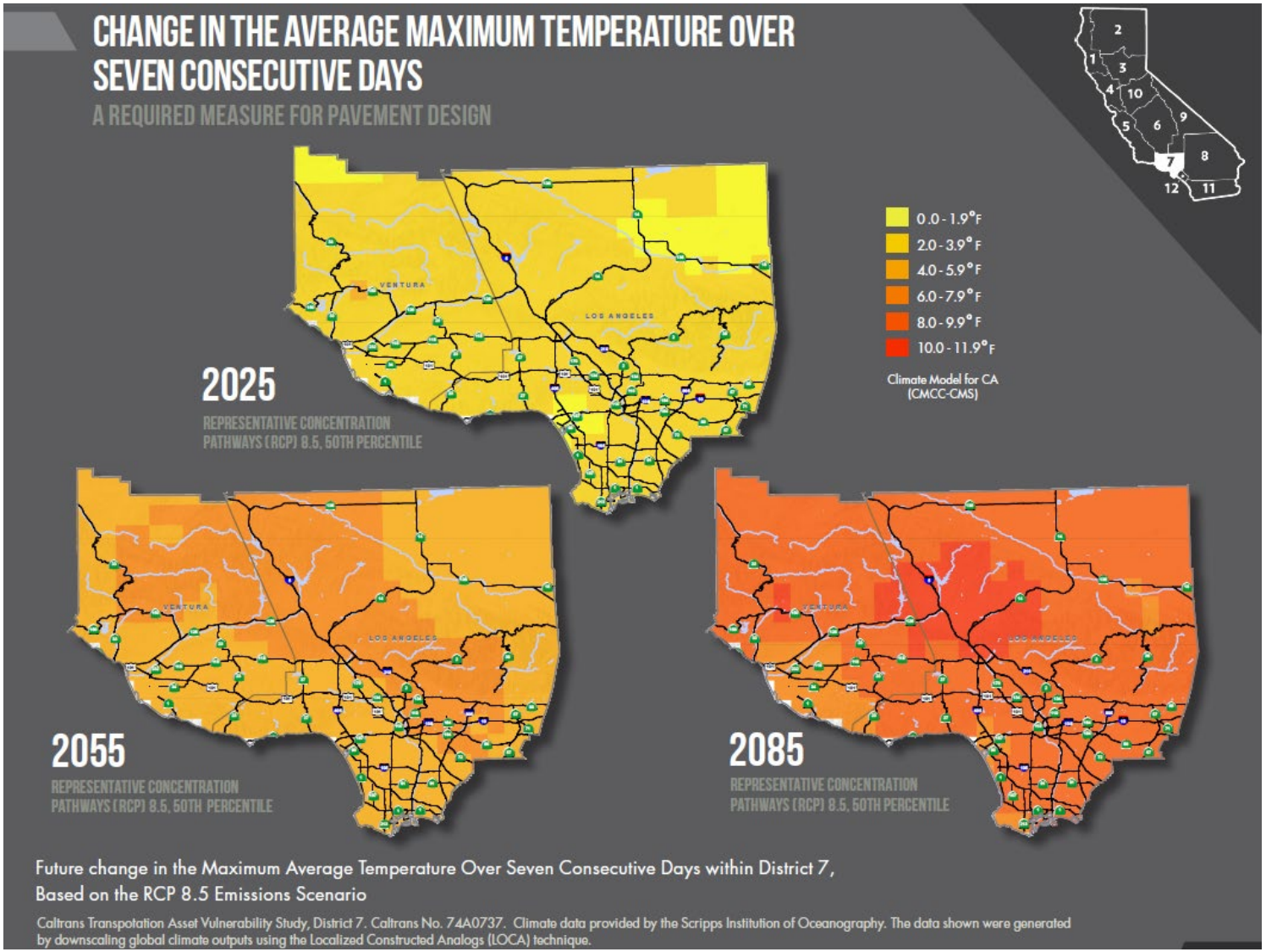
• Higher temperatures could deteriorate bridge joint seals due to expansion—this could accelerate replacement schedules and even affect bridge superstructure.

Temperature Change in District 7

The average maximum temperature over seven days is expected to increase by up to 3.9° around 2025 and 11.9° (F) towards the end of century in District 7 (see Figure 19). This temperature rise is mostly uniform across the district, with possible greater temperature increases in the center of the district. These projections are for the ambient

air temperature only and don’t include additional heat effects, such as those from the Urban Heat Island. Los Angeles is an Urban Archipelago, where urban land covers a large area rather than covering a central point, and highest temperatures are typically found downwind. Caltrans has the opportunity to consider measures that reduce the agency’s impacts to Urban Heat Island through cool roofs, pavements, and landscaping, where applicable.

Figure 19: Change in Average Maximum Temperature



Pavement Design

The design of pavement affects its durability and is an important component of Caltrans' highway asset management strategy. Ensuring the durability and good ride quality of highway pavements under various conditions is an important responsibility of every state transportation agency. Pavement can be either concrete or asphalt mix, depending on various factors. Selecting the pavement binder is one element of asphalt pavement design and it is an important decision based in part on temperature conditions in the project area.

Climate change preparation is different for pavement design than for other assets. Many of Caltrans' assets, including roadways, bridges, and culverts have longer design lives, so decisions made for them today need to take that into account. Asphalt pavement is replaced more frequently—approximately every 20-40 years depending on its purpose.

Caltrans has divided the state into nine pavement climate regions to help determine the best pavement types for each area. Pavement design considers two main criteria: average maximum temperature over seven consecutive days, and the change in absolute minimum air temperature. This assessment's temperature projections have been formatted to fit these metrics. A primary consideration for Caltrans and its pavement design engineers will be whether the climate region boundaries could shift due to climate change, or whether climate changes across the state will alter pavement design parameters.

Timeframes and Asset Decision-Making

Decision-making for transportation assets requires consideration of many factors, including how long an asset will be in place. This is often referred to as the design life, or useful life, of an asset. Some assets managed by Caltrans, like asphalt pavement, are replaced around every 20-40 years while others, like bridges, are built with the expectation of a useful life of 50 years or longer. A road alignment may be in place for a century or longer—a reality highlighted by the fact that alignment of the first national highway (as it was defined then), built to connect settlers to the Ohio Valley and the west, is still in existence today.

The two graphics below (Figure 20 and 21) highlight how design life considerations are a critical part of planning for transportation investment. Figure 20 below shows how future temperature scenarios vary widely depending on emission levels and global response. One thing to note is that the conditions are somewhat consistent through around 2050, after which they begin to diverge more significantly. This means that decisions made on investments nearing the end of century need to include a much wider range of temperature uncertainty for future conditions.

Figure 20: Climate Change Physical Science

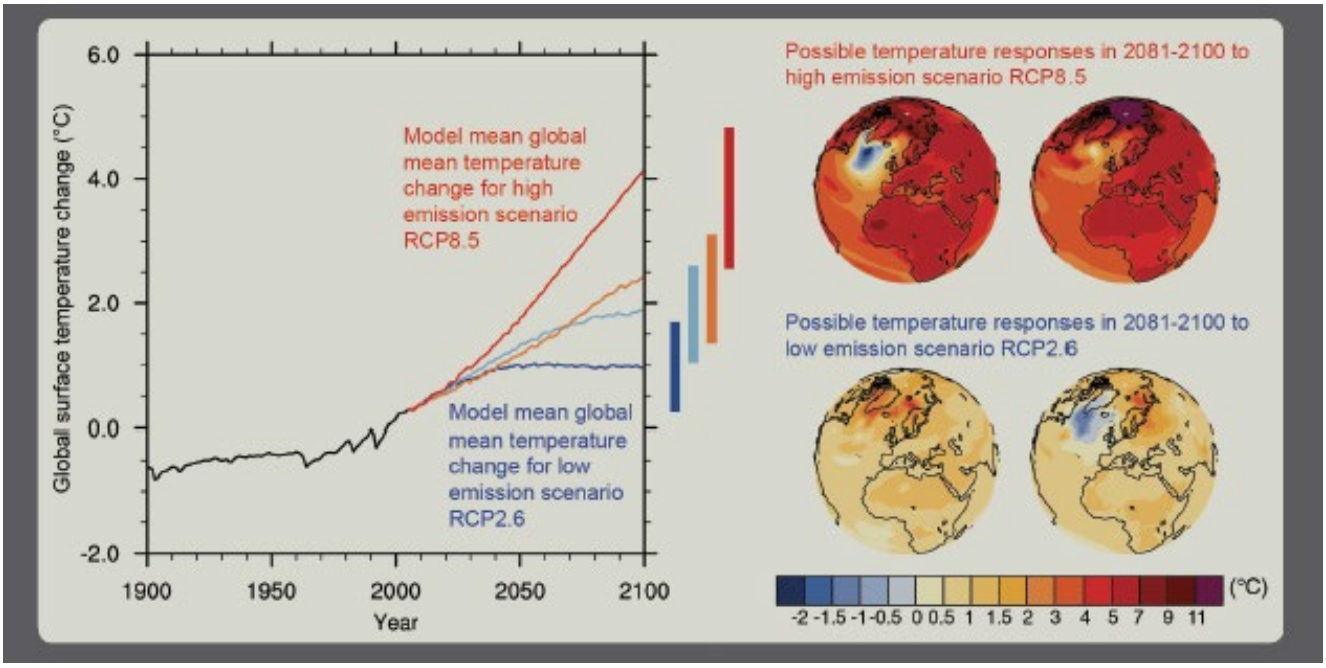
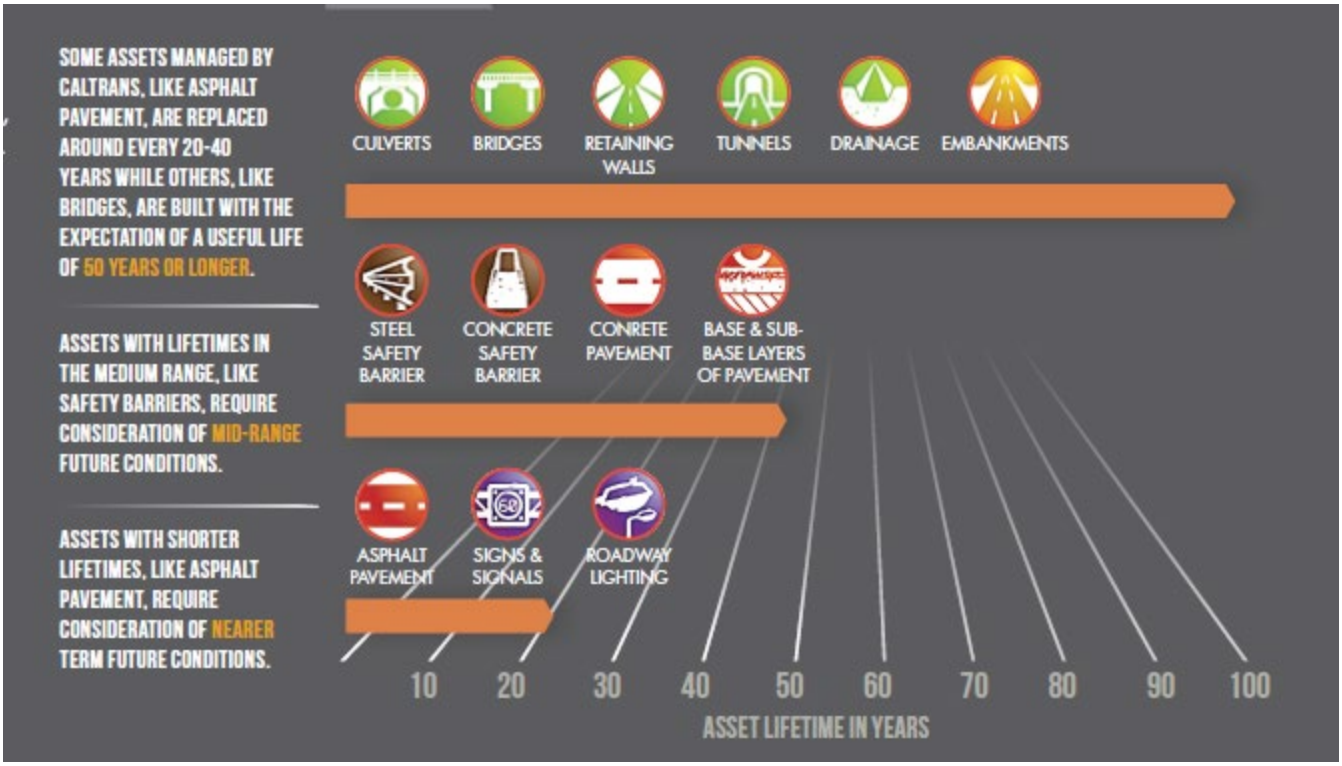


Figure 21: Transportation Infrastructure Assets



The District Climate Change Vulnerability Assessment does not indicate temperature changes during the project's design life that would require adaptive changes in pavement design or maintenance practices.

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Chapter 4 Comments and Coordination

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and to identify potential impacts and avoidance, minimization, and/or mitigation measures and related environmental requirements. Agency and tribal consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including interagency coordination meetings, public meetings, public notices, and Project Development Team (PDT) meetings. This chapter summarizes the results of Caltrans efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

Project Scoping:

Scoping is a process designed to examine a proposed project early in the project development process and is intended to identify the range of issues raised by the proposed project and to outline feasible alternatives or avoidance, minimization, and/or mitigation measures to avoid potentially significant environmental effects. The scoping process inherently stresses early consultation with local agencies, responsible agencies, review agencies, trustee agencies, cooperating agencies, tribal governments, elected officials, interested/ affected individuals, any additional stakeholders, and any federal agency whose approval or funding of the proposed project will be required for completion of the project.

Scoping is considered an effective way to bring together and resolve the concerns of other agencies and individuals who may potentially be affected by the proposed project, as well as other interested persons or groups, such as the general public, who might not be in accord with the action on environmental grounds.

During the scoping period, Caltrans solicited comments and input from all stakeholders and attempted to ensure their early involvement in the project development and environmental process.

A Notice of Preparation (NOP) is a document stating that an Environmental Impact Report (EIR) will be prepared for a project. An NOP was issued in December 2023 (See Appendix E), but upon further review of the proposed project; it was determined an EIR is no longer necessary and an Initial Study is appropriate under CEQA.

Caltrans sent the NOP for the Project EIR/EA to agencies, organizations, elected officials, and other interested parties. The NOP letter summarized the proposed project, stated Caltrans' intention to prepare an EIR/EA, and describe potential environmental effects of the project.

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Making Conservation a California Way of Life.

November 28, 2023

Agencies, Organizations and
Individuals interested in the
SR-110 Bridge Replacement &
Railing Upgrade Project

File: 07-LA-SR-110
(PM 25.34, 27.08, 30.1)
EA: 37130 & 36930
SR-110 Bridge Replacement &
Railing Upgrade Project

Notice of Scoping/Initiation of Studies

This is to advise you that the California Department of Transportation (Caltrans) is formally initiating studies to improve operations and safety and upgrade assets to current standards on the Arroyo Seco Parkway (SR 110) in the cities of Los Angeles and South Pasadena, California. The Project consists of two alternatives, one "No Build" Alternative and one "Build Alternative" that will replace N110-N5 Connector Sidehill Viaduct (Bridge No. 53-2225G) and upgrade the bridge railing of Avenue 43 Ramp Bridge (Bridge #53-0985S) and Arroyo Seco Channel Bridge (Bridge #53-0276). Alternatives are described in the attached Notice of Preparation (NOP).

As a result of the Preliminary Environmental Analysis Report (PEAR), an Environmental Impact Report/Environmental Assessment will be prepared to evaluate any potential environmental impacts pursuant to the California Environmental Quality Act (CEQA)and the National Environmental Policy Act (NEPA). Caltrans is the lead agency under CEQA and NEPA. During the course of the environmental study, Caltrans will work closely with the public to ensure that public comments and reasonable alternatives are considered. We welcome any comments or suggestions you may have concerning this proposed project.

Please send your comments by January 16, 2024 to:

Kelly Ewing-Toledo, Deputy District Director
Division of Environmental Planning
California Department of Transportation, District 7
100 South Main Street, MS 16A
Los Angeles, CA 90012

or via e-mail at SR110BridgeComments@dot.ca.gov

All comments received will become part of the project record and will provide valuable input to our environmental and design personnel. If you have any questions, please contact Jason Roach at (213) 310-2653. Thank you for your interest in this important transportation study.

Sincerely,

Kelly Ewing-Toledo

KELLY EWING-TOLEDO
Deputy District Director, Division of Environmental Planning
Department of Transportation, District 7

Enclosure: Notice of Preparation

California Department of Transportation

DISTRICT 7
100 SOUTH MAIN STREET, SUITE 100 | LOS ANGELES, CA 90012
PHONE (213) 897-0362 | FAX (213) 897-0360 TTY 711
www.dot.ca.gov

December 6, 2023

<Mr./Ms./The Honorable Name>
<Title>
<Organization>
<Address>
<City, ST ZIP>

Dear <Mr./Ms./Senator/Secretary>:

This is to advise you that the California Department of Transportation (Caltrans) is formally initiating studies to improve operations and safety and upgrade assets to current standards on the Arroyo Seco Parkway (SR 110) in the cities of Los Angeles and South Pasadena, California. The Project consists of two alternatives, one "No Build" Alternative and one "Build Alternative" that will replace N110-N5 Connector Sidehill Viaduct (Bridge No. 53-2225G) and upgrade the bridge railing of Avenue 43 Ramp Bridge (Bridge #53-0985S) and Arroyo Seco Channel Bridge (Bridge #53-0276). Alternatives are described in the attached Notice of Preparation (NOP).

As a result of the Preliminary Environmental Analysis Report (PEAR), an Environmental Impact Report/Environmental Assessment (EAR/EA) will be prepared to evaluate any potential environmental impacts pursuant to the California Environmental Quality Act (CEQA)and the National Environmental Policy Act (NEPA). Caltrans is the lead agency under CEQA and NEPA.

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Please send your comments by January 16, 2024, to:

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California Department of Transportation, District 7
100 South Main Street, MS 16A
Los Angeles, CA 90012

<Mr./Ms./The Honorable Name>, <Title>
<Date>
<Page 2

or via e-mail at SR110BridgeComments@dot.ca.gov

All comments received will become part of the project record and will provide valuable input to our environmental and design personnel. Thank you for your interest in this important transportation study. If you have further questions, please contact Kelly Ewing-Toledo, Deputy District Director, Environmental Planning Division, at (213) 332-1935.

Sincerely,

Gloria Roberts
District 7 Director

Enclosure Notice of Preparation

Cultural Resources Consultation:

The consultation pertaining to archaeology, letters were sent via e-mail to the following parties on April 22, 2024. Follow up emails were sent on May 13, 2024. Unless noted, no responses have been received to date.

Los Angeles Office of Historic Resources 221 North Figueroa St, Suite 1350 Los Angeles, CA 90012 Ken Bernstein, Principal City Planner ken.bernstein@lacity.org

Los Angeles Conservancy 523 W 6th St, Suite 826 Los Angeles, CA 90014 info@laconservancy.org

Highland Park Heritage Trust PO Box 50894 Los Angeles, CA 90050 info@hpht.org

City of South Pasadena, Community Development Department, Planning Division 1414 Mission St South Pasadena, CA 91030 AskPlanning@southpasadenaca.gov

South Pasadena Preservation Foundation 913 Meridian Ave South Pasadena, CA 91030 info@sppreservation.org

Highland Park Heritage Trust (HPHT)

• 5/13/24: A reply was received via e-mail letting Caltrans know they were working on a response and asked what the final deadline was. Caltrans responded on 5/15/24 asking for their feedback by 5/27/24 (the date noted in the letter) but gave them a final deadline of 5/31/24 at the latest.

They responded that they would likely need to take up the additional time.

5/31/24: Jamie Tijerina, President, responded via e-mail with an attached letter from the board. The letter mentioned two historically designated monuments “along the three …[project] sites”, the Arroyo Seco Channel Railroad Bridge (Los Angeles Historic Cultural Monument No. 339) and the Avenue 43 Bridge. The first they noted a little of the history, and the later they expressed their preference for preserving the existing deign of the bridge. Later that day Caltrans responded thanking them for their input and clarified that the two bridges the HPHT expressed concerns about are not a part of this project and that they will not be affected.

• 5/31/24: Steve Church, a member of the HPHT, e-mailed expressing concerns of the potential use of a standard design on the replacement bridge rail and suggests not using a “one-size-fits-all” approach on the ASHPD. He said special solutions and exceptions need to be made for the ASPHD, giving the idea of an Arroyo Seco Parkway working group with outside parties.

Caltrans requested a search of the Native American Heritage Commission (NAHC) Sacred Lands File on October 23, 2023. A positive response was received on November 18, 2023.

Section 106 and AB52 consultation notification letters were sent via email on October 11, 2023, and October 23, 2023. Additional and follow up consultation notifications were sent on January 10, 2024, to individuals identified in the contact list provided by the NAHC. To date, representatives of three tribes have requested consulting party status. Concerns from tribal representatives were focused on concerns for a repatriated burial located outside the current project APE.

Andrew Salas – Gabrieleño Band of Mission Indians – Kizh Nation

• Caltrans Archaeologist Kim Harrison attended a web conference with Andres Salas, Matthew Teutimez, and Brandy Salas of the Gabrieleno Band of Mission Indians - Kizh Nation on November 14, 2023. During the call, the tribe expressed sensitivity concerns for the location and identified landmarks in the vicinity that would have contributed to pre-Contact use of the location. Particular concern was noted for the burial repatriated near Arroyo Seco Park and for resources in the vicinity of the waterway of the Los Angeles River. As no ground disturbance is proposed for this location, no potential for effect to the site has been identified. Ms. Harrison stated she would share project documents with the tribe.

Sam Dunlap – Gabrielino Tongva Tribe

• Mr. Dunlap responded to Ms. Harrison's email consultation notification on February 2, 2024. Mr. Dunlap asked to be contacted via phone. Ms. Harrison called and left a voicemail on February 14, 2024, detailing the known areas of ground disturbance proposed by the project.

• Caltrans archaeologist Diana Valadez communicated with Mr. Dunlap on March 6, 2024, and forwarded concerns he had for this project, including the burial on the southbound side of the 110 at Arroyo Park. Mr. Dunlap stated that the burial was found during a park improvement project around 2002 with Greenwood & Associates as the consultant. It was a female buried with rocks in a unique position. He said he was the MLD and reburied her elsewhere in the park with Ernie Salas. Then Rincon came years later for more park improvements monitoring. Ms. Harrison emailed Mr. Dunlap on March 27, 2024, stating she had received Ms. Valadez' communication regarding the burial. Ms. Harrison stated that proposed work near that vicinity at Ave 43 was limited to the bridge railings and deck with no ground excavation near the site.

• No further communication has been received.

John Cody Blunt – Tribal Council Member – Gabrielino/Tongva Nation

• Mr. Blunt returned Ms. Harrison's consultation notification email on April 2, 2024, stating that he was responding on behalf of Chairwoman Goad. He stated that both he and she would like to be included in the process moving forward. Ms. Harrison responded to his email on April 8, 2024, with information on the only identified resource in the Project area, stating that the only proposed project work in the vicinity consisted

of bridge rail work with no ground disturbance. Ms. Harrison also related that research was still in progress, but that the main concern was the major excavation associated with the replacement of the bridge structure from 110 NB to I-5 NB. Historical aerials and topos indicated massive landscape modifications from the reprofiling of the hillside in Elysian Park and the construction of the LA channel. No further communication has been received.

No response was received from any other parties sent consultation notifications. The draft ASR was sent to consulting parties on June 12, 2024, with a request for comments. No response was received.

STATE OF CALIFORNIA Gavin Newsom, *Governor*

NATIVE AMERICAN HERITAGE COMMISSION

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NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

December 4, 2023

Sally Moawad
Caltrans
100 S. Main Street MS 16A
Los Angeles, CA 90012

Governor's Office of Planning & Research

Dec 08 2023

STATE CLEARINGHOUSE

Re: 2023120015, SR-110 Bridge Replacement & Railing Upgrade Project, Los Angeles County

Dear Ms. Moawad:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- **a.** A brief description of the project.
- **b.** The lead agency contact information.
- **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- **a.** Alternatives to the project.
- **b.** Recommended mitigation measures.
- **c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- **a.** Type of environmental review necessary.
- **b.** Significance of the tribal cultural resources.
- **c.** Significance of the project's impacts on tribal cultural resources.
- **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
- **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (https://ohp.parks.ca.gov/?page_id=30331) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
    a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
    b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
    a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
    b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
    c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

cc: State Clearinghouse

Alexandra Owens



From: Zachariasen, Judith@DOC <Judith.Zachariasen@conservation.ca.gov>
Sent: Thursday, December 21, 2023 8:47 AM
To: SR110 Bridge Comments@DOT
Cc: OLRA@DOC; OPR State Clearinghouse
Subject: SR-110 Bridge Replacement & Railing Upgrade Project - SCH No. 2023120015

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Comments

Dear Kelly Ewing-Toledo,

The California Geological Survey (CGS) has received the Notice of Preparation of a Draft Environmental Impact Report (DEIR) for the SR-110 Bridge Replacement and Railing Upgrade Project. This email conveys the following recommendations from CGS concerning geologic issues related to the project area:

1. Liquefaction and Landslide Hazards
   The project sites are located within earthquake zones of required investigation (ZORI) for liquefaction and landslide hazard mapped by CGS. The DEIR and supporting documents should address these hazards as they relate to the design of the proposed structures. Additional information is available at the links below:
   https://maps.conservation.ca.gov/cgs/EQZApp/app/
   https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html? map=regulatorymaps

2. Surface Fault Rupture Hazard
   The Arroyo Seco Channel Bridge is located in an Earthquake Fault Zone for the Raymond Fault mapped by CGS. The DEIR and supporting documents should address this hazard as it relates to the design of the proposed structures. Additional information about surface faults can be obtained at the following sites:
   https://maps.conservation.ca.gov/cgs/EQZApp/app/
   https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf

3. Ground Shaking Hazards
   Numerous active faults in addition to the Raymond Fault are located near the project area, and the project sites could be subject to significant ground shaking. The DEIR and supporting documents should address this hazard as it relates to the design of the proposed structures. Additional information about ground shaking hazard can be obtained at the following sites:
   https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=14d2f75c7c4f4619936dac0d14e1e468
   https://earthquake.usgs.gov/scenarios/catalog/bssc2014/

If you have any additional comments or questions, please feel free to call or email.

Thank you,
Judy Zachariasen

Judith Zachariasen, PhD, PG, CEG
Senior Engineering Geologist
Fault Zoning Unit Supervisor
Seismic Hazards Program
California Geological Survey

California Department of Conservation
715 P Street, MS 1900, Sacramento, CA 95814
T: (916) 879-2844
E: judith.zachariasen@conservation.ca.gov

From: Moawad, Sally F@DOT
To: Ramos, Paul
Cc: Roach, Jason P@DOT
Subject: RE: SR-110 Improvements Project - Scoping Notice
Date: Thursday, January 11, 2024 1:28:00 PM
Attachments: image001.png

Good afternoon,

Will do. With respect to this project the estimated begin construction date is September, 2028 through November, 2029.

Have a great day,

Sally

From: Ramos, Paul <paul.ramos@lausd.net>
Sent: Thursday, January 11, 2024 1:20 PM
To: Roach, Jason P@DOT <jason.roach@dot.ca.gov>
Cc: Moawad, Sally F@DOT <sally.moawad@dot.ca.gov>; SR110 Bridge Comments@DOT <SR110BridgeComments@dot.ca.gov>
Subject: Re: SR-110 Improvements Project - Scoping Notice

EXTERNAL EMAIL. Links/attachments may not be safe.

Hello,

Please include me to your contact list for LAUSD Transportation Service Division to any future projects with California Department of Transportation (Caltrans) Projects.

For this SR-110 Bridge Replacement and railing upgrade project is there a start and end date.

Thank You for your cooperation.

Respectfully,

Paul Ramos

Relief Central Transportation Planner

Los Angeles Unified School District

Transportation Service Division

Office: 213-580-2912

Email:paul.ramos@lausd.net

From: Roach, Jason P@DOT <jason.roach@dot.ca.gov>
Sent: Wednesday, December 13, 2023 1:10 PM
To: Ramos, Paul <paul.ramos@lausd.net>
Cc: Moawad, Sally F@DOT <sally.moawad@dot.ca.gov>
Subject: SR-110 Improvements Project - Scoping Notice

> You don't often get email from jason.roach@dot.ca.gov. Learn why this is important

CAUTION: EXTERNAL EMAIL

Hi Paul –

Per your Voicemail, attached please find the general mailers we sent out last week for the SR-110 Improvements Project. These notices were mailed to both Austin Beautner and Christy Wong at LAUSD. Please let me know how else I can assist. Thank you.

Jason Roach
Senior Environmental Scientist
Caltrans, District 7
(213) 310-2653

NATIVE AMERICAN HERITAGE COMMISSION

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Reginald Pagaling
Chumash

VICE-CHAIRPERSON
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November 18, 2023

Kimberly Harrison
Caltrans

Via Email to: kimberly.harrison@dot.ca.gov

Re: Caltrans EA 07-3713U State Route 110 Railings and Widening Project, Los Angeles County

To Whom It May Concern:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information submitted for the above referenced project. The results were positive. Please contact the Gabrieleno Band of Mission Indians – Kizh Nation on the attached list for information. Please note that tribes do not always record their sacred sites in the SLF, nor are they required to do so. A SLF search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with a project's geographic area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites, such as the appropriate regional California Historical Research Information System (CHRIS) archaeological Information Center for the presence of recorded archaeological sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. Please contact all of those listed; if they cannot supply information, they may recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Cody.Campagne@nahc.ca.gov.

Sincerely,

Cody Campagne

Cody Campagne
Cultural Resources Analyst

Attachment

State of California • Natural Resources Agency
Gavin Newsom, *Governor*

DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION
Armando Quintero, *Director*

Julianne Polanco, State Historic Preservation Officer
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100
Telephone: (916) 445-7000 FAX: (916) 445-7053
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

September 3, 2024

VIA EMAIL

In reply refer to: FHWA-CATRA_2024_0802_001

Mr. Jeff Carr, Acting Section 106 Coordinator
Cultural Studies Office
Division of Environmental Analysis
PO Box 942873, MS-27
Sacramento, CA 94273-0001

Subject: Finding of No Adverse Effect for the Proposed LA 110 Sidehill Viaduct and Bridge Rails Project. Los Angeles County, California

Dear Mr. Carr:

Caltrans is initiating consultation regarding the above project in accordance with the 2014 *First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer* (SHPO). As part of your documentation, Caltrans submitted a Historic Properties Survey Report, Archaeological Survey Report, and a Finding of Effect (FOE) Report for the project.

Caltrans proposes a series of projects on three bridges on State Route 110, commonly known as the Arroyo Seco Parkway or Pasadena Freeway. Proposed work includes sidewalk removal and shoulder widening, the removal of an existing bridge structure, the addition of a new retaining wall, as well as upgrades to signs and sign panels, crash cushions, channelizer, roadway signs, rumble strips, upgrade of existing Midwest guardrail system (MGS), reconstruction of a portion of the Arroyo Seco Channel Bridge deck, and replacement of bridge rails.

Caltrans' identification and consultation efforts for the Undertaking resulted in the documentation of two historic properties in the Area of Potential Effects (APE) the Arroyo Section Parkway Historic District (ASPHD), which is listed in the National Register of Historic Places (NRHP), and the Arroyo Seco Flood Control Channel (ASFCC), that was previously determined eligible for the NRHP.

Pursuant to Stipulation X.A of the 106 PA, Caltrans has applied the criteria of adverse effect set forth in 36 CFR § 800.5(a)(1) and determined that the Undertaking will not adversely affect any of the historic properties in the APE. Caltrans found that the undertaking would not adversely affect the ASPHD due to the use of context sensitive

designs and the fact that most of the contributing resources to the historic district retain their original bridge rails. There will be no effect to the ACFCC because the only work taking place is for temporary access to retrieve lost items.

Based on my review of the submitted documentation, I have no objections to Caltrans' finding of no adverse effect for this undertaking.

If you have any questions, please contact Natalie Lindquist at natalie.lindquist@parks.ca.gov .

Sincerely,

Julianne Polanco
State Historic Preservation Officer

Chapter 5 List of Preparers

The following Caltrans' staff and consultants contributed to the preparation of this IS/EA.

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Chapter 6 Distribution List

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			Principal Librarian	Pasadena Public Library La Pintoresca Branch	1355 N. Raymond Ave.	Pasadena	CA	91103
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Attn:			Manager	iTennis South Pasadena	920 Lohman Ln.	South Pasadena	CA	91030
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				Footsies	2640 N. Figueroa St.	Los Angeles	CA	90065
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				JSL Food Inc.	3550 Pasadena Ave.	Los Angeles	CA	90031
				Judson Studios	200 S Ave 66	Los Angeles	CA	90042
				Los Angeles Marathon	871 Figueroa Terrace	Los Angeles	CA	90012
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Attn:			Property Management	Pasadena Park Place Apartments	101 Bridewell St.	Los Angeles	CA	90042
				Shakers	601 Fair Oaks Ave.	South Pasadena	CA	91030
Attn:			Manager	StorQuest Self Storage	2222 N. Figueroa St.	Los Angeles	CA	90012
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Attn:			Manager	The Home Depot	2055 N Figueroa Street	Los Angeles	CA	90065
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				El Sereno Senior Citizen Center	4818 Klamath Place	Los Angeles	CA	90032
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Mr.	Louis	Paglialonga	Commander - South Bureau	City of Los Angeles Police Department, Southern Division	7600 S. Broadway	Los Angeles	CA	90003
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Mr.	Harv	Woien			1175 Montecito Dr.	Los Angeles	CA	90031
Ms.	Linda	Wobbe			781 Montecito Dr.	Los Angeles	CA	90031
Mr.	Charles	Fisher	Historian	LA Conservancy	140 S. Ave. 57	Highland Park	CA	90042
Mr.	Randoll	Zorick			1065 Pagodo Pl.	Los Angeles	CA	90031
Mr.	Fedouw	Burges			236 E. Ave. 38	Los Angeles	CA	90031
Mr.	Tim	Brick	Managing Director	Arroyo Seco Foundation	570 W. Ave. 26 #450	Los Angeles	CA	90065
Ms.	Athena	Demos			3593 Griffin Ave.	Los Angeles	CA	90031
Ms.	Castula	Paredes			600 Arroyo Dr.	South Pasadena	CA	91030
Mr.	Philip	George			5209 Hermosa Ave.	Los Angeles	CA	90041
Ms.	Cathy	Lee			123 Monterey Rd.	South Pasadena	CA	91030
Mr.	James	Chou			1010 Sycamore Ave, #304	South Pasadena	CA	91030

Salutation	First Name	Last Name	Title	Organization	Address or E-mail	City	State	Zip Code
Mr.	Clint	Granath	Chief Engineer at Forest Lawn	Forest Lawn	1437 Oak Crest Ave.	South Pasadena	CA	91030
Ms.	Cassie	Truong	Transportation Associate II	LA Metro	One Gateway Plaza	Los Angeles	CA	90012
Ms.	Sandra	Herwerth			3300 Griffin Ave.	Los Angeles	CA	90031
Mr.	Lawrence	Abelson			612 Hermosa St.	South Pasadena	CA	91030
Mr.	Marcus	Moche			160 S Avenue 61	Los Angeles	CA	90042
Mr.	Steve	Crouch			949 San Pascual Ave.	Los Angeles	CA	90042
Ms.	Christie	Hazlet			200 E Avenue 38	Los Angeles	CA	90031
Mr.	Christopher	Castro			200 E Avenue 38	Los Angeles	CA	90031
Mr.	Jae	Moreno			860 N Avenue 65	Los Angeles	CA	90042
Ms.	Suzanne	Siegel			4563 Marmion	Los Angeles	CA	90065
Mr.	Larry	Davis			367 Mavis Dr.	Los Angeles	CA	90065
Mr.	Jaime	De La Pena			3828 Jam Pico Ave.	Los Angeles	CA	90032
Ms.	Carmela	Gomes			1326 N Avenue 54	Los Angeles	CA	90042
Mr. & Mrs.	Doug & Stephanie	Schwartz			4690 San Andreas	Los Angeles	CA	90065
Ms.	Linda	Wobbe			781 Montecito Dr.	Los Angeles	CA	90031
Ms.	Alma	Aguilar			4522 Homer St.	Los Angeles	CA	90031
Mr.	Keenan	Sheedy			4229 Marimon Way	Los Angeles	CA	90065
Ms.	Elvia	Gutierrez			127 E Avenue 43	Los Angeles	CA	90031
Mr.	David	Gutierrez			127 E Avenue 43	Los Angeles	CA	90031
Mr.	Dan	Jorsinella			6048 Hayes St.	Los Angeles	CA	90042
Mr.	Todd	Ockey			812 Orange Grove Ave. #11	South Pasadena	CA	91030
Mr.	Terry	Pina			531 E. Avenue 39	Los Angeles	CA	90031
Mr.	Rich	McCarthy			4217 Latona Ave.	Los Angeles	CA	90031
Mr.	Charles	Fisher			140 S. Avenue 57	Los Angeles	CA	90042
Ms.	Katherine	Harrington			6279 Pine Crest Dr.	Los Angeles	CA	90042
Mr.	John	Fisher			431 Grand Ave.	South Pasadena	CA	91030
Mr.	Steve	Campos			6281 Pine Crest Dr.	Los Angeles	CA	90042
Ms.	Sharon	Shorer			5119 Bomer St.	Los Angeles	CA	90042
Ms.	Monique	Gaudry			918 Elyria Dr.	Los Angeles	CA	90065
Ms.	Cynthia	White			164 W. Avenue 34	Los Angeles	CA	90031
Ms.	Lucia	Baeza			346 S. Avenue 63	Los Angeles	CA	90042
Mr.	David	Hernandez			4506 Homer St.	Los Angeles	CA	90031
Mr. & Mrs.	Armando & Irma	Juado			256 Thorne St.	Los Angeles	CA	90042
Mr.	Walter	Pinebinole			4541 Glenalbyn Dr	Los Angeles	CA	90065
Dr.	Tom	Williams			4117 Barrett Rd.	Los Angeles	CA	90032
Ms.	Anne	Miller			634 Grand Ave.	South Pasadena	CA	91030
Mr. & Mrs.	Meena & Bryan	Pennigton			442 N. Summit Ave.	Pasadena	CA	91103
Ms.	Valerie	Pelnick			6056 Hayes Ave.	Los Angeles	CA	90042
Ms.	Silvia	Duarte			4313 Mosher Ave.	Los Angeles	CA	90031

Salutation	First Name	Last Name	Title	Organization	Address or E-mail	City	State	Zip Code
Mr.	James	Marcotte			5317 Abbott Pl.	Los Angeles	CA	90042
Ms.	Julien	Buenaventura		Mountains Recreation and Conservation Authority	julien.buenaventura@mrca.ca.gov			
Mr.	Tom	Majich	Principal	Arroyo Hill Development Inc.	3200 N. Figueroa Terrace	Los Angeles	CA	90065
Mr.	Craig	Vieregg			3521 Griffin Ave.	Los Angeles	CA	90031
Ms.	Lydia	Perez			332 S. Avenue 63	Los Angeles	CA	90042
Ms.	C.	Leather			3706 N. Figueroa St.	Los Angeles	CA	90065
Ms.	Karen	Wingard			737 Magnolia Ave.	Pasadena	CA	91106
Mr.	Paul	Ahrens			4591 Glenalbyn Dr.	Los Angeles	CA	90065
Mr.	Flint	Maloney			P.O. Box 1525	South Pasadena	CA	91031
Ms.	Mary	Diaz			3520 Arroyo Seco Ave.	Los Angeles	CA	90065
Ms.	Annette	Marchain			918 Magnolia St.	South Pasadena	CA	91030
Ms.	Stephanie	Duarte			4305 Mosher Ave.	Los Angeles	CA	90031
Mr.	John	Hemer			425 W. Avenue 42	Los Angeles	CA	90065
Ms.	Duncan	Gregory	President		PO Box 50791	Los Angeles	CA	90050
Ms.	Nicholas	Manalo	President	Arroyo Seco Neighborhood Council	PO Box 42254	Los Angeles	CA	90042
Mr.	Clint	Birdsong	President	Greater Cypress Park Neighborhood Council	1150 Cypress Ave.	Los Angeles	CA	90065
Mr.	Bart	Reed	Executive Director	Transit Coalition	PO Box 567	San Fernando	CA	91341
Mr.	Marc	Carrel	President	Breathe California of Los Angeles County	5858 Wilshire Blvd., #300	Los Angeles	CA	90036
Mr.	Bill	Waycott	Board VP	California Native Plant Society	2707 K St., Ste. 1	Sacramento	CA	95816
Mr.	Philip	Murphy	Co-President	Citizens Committee to Save Elysian Park	3108 Glendale Blvd., Ste. 500	Los Angeles	CA	90039
Dr.	Joseph	Lyou	President/CEO	Coalition for Clean Air	660 South Figueroa, Ste. 1140	Los Angeles	CA	90017
Mr.	Mark	Wilson	President/CEO	Coalition for Responsible Community Development (C.R.C.D.)	7101 S Central Ave., Unit 54249	Los Angeles	CA	90054
Mr.	Mark	Gallatin	President	South Pasadena Preservation Foundation	913 Meridien Ave.	South Pasadena	CA	91030
Ms.	Michele	Jackson	Board Secretary	Los Angeles County Metropolitan Transportation Authority	One Gateway Plaza, MS 99-23-2	Los Angeles	CA	90012
Ms.	Karen	Cadavona	Senior Corporate Representative	Southern California Edison	2244 Walnut Grove Ave., GO 1 Quad 4C	Rosemead	CA	91770
Mr.	Gurcharan	Bawa	General Manager	City of Pasadena Water and Power	PO Box 7121	Pasadena	CA	91109
Mr.	Adel	Hagekhalil	General Manager	Metropolitan Water District of Southern California	P.O. Box 54153	Los Angeles	CA	90054
Mr.	Kevin	Minne	Acting Deputy City Engineer	Department of Public Works	1149 S. Broadway, Suite 750	Los Angeles	CA	90015
Mr.	Robert	Blume		Kimley-Horn Consulting	660 South Figueroa Street, Suite 2050	Los Angeles	CA	90017
Ms.	Nicole	Dias		Kimley-Horn Consulting	660 South Figueroa Street, Suite 2050	Los Angeles	CA	90017
Mr.	Tony	Harris			120 North Madison	Pasadena	CA	91101
Mr.	Paul	Ramos	Relief Central Transportation Planner	Transportation Service Division	333 South Beaudry Ave.	Los Angeles	CA	90017
Honorable	Judy	Chu	U.S. Representative	United States House of Representatives, District 28	1531 Purdue Ave	Los Angeles	CA	90025

Salutation	First Name	Last Name	Title	Organization	Address or E-mail	City	State	Zip Code
Honorable	Jimmy	Gomez	U.S. Representative	California State Assembly, District 34	350 S. Bixel St. #120	Los Angeles	CA	90017
Honorable	Alex	Padilla	U.S. Senator	United States Senate	255 E. Temple St. Suite 1860	Los Angeles	CA	90012
Honorable	Laphonza	Butler	U.S. Senator	United States Senate	11111 Santa Monica Blvd #915	Los Angeles	CA	90025
Honorable	Karen	Bass	Mayor	City of Los Angeles	200 N. Spring St.	Los Angeles	CA	90012
Honorable	Eunisses	Hernandez	Councilmember	City of Los Angeles City Council, District 1	200 N. Spring Street, Room 460	Los Angeles	CA	90012
Honorable	Kevin	De Leon	Councilmember	City of Los Angeles City Council, District 14	200 N Spring Street, Rm 425	Los Angeles	CA	90012
Honorable	Victor	Gordo	Mayor	City of Pasadena	100 North Garfield Ave.	Pasadena	CA	91101
Honorable	Tyron	Hampton	Councilmember	City of Pasadena, District 1	100 North Garfield Ave.	Pasadena	CA	91101
Honorable	Felicia	Williams	Councilmember	City of Pasadena, District 2	100 North Garfield Ave.	Pasadena	CA	91101
Honorable	Justin	Jones	Councilmember	City of Pasadena, District 3	100 North Garfield Ave.	Pasadena	CA	91101
Honorable	Gene	Masuda	Councilmember	City of Pasadena, District 4	100 North Garfield Ave.	Pasadena	CA	91101
Honorable	Jess	Rivas	Councilmember	City of Pasadena, District 5	100 North Garfield Ave.	Pasadena	CA	91101
Honorable	Steve	Madison	Councilmember	City of Pasadena, District 6	100 North Garfield Ave.	Pasadena	CA	91101
Honorable	Jason	Lyon	Councilmember	City of Pasadena, District 7	100 North Garfield Ave.	Pasadena	CA	91101
Honorable	Michael	Cacciotti	Mayor	City of South Pasadena	1414 Mission Street	South Pasadena	CA	91030
Honorable	Jon	Primuth	Councilmember	City of South Pasadena	1414 Mission Street	South Pasadena	CA	91030
Honorable	Jack	Donovan	Councilmember	City of South Pasadena	1414 Mission Street	South Pasadena	CA	91030
Honorable	Janet	Braun	Councilmember	City of South Pasadena	1414 Mission Street	South Pasadena	CA	91030
Honorable	Evelyn	Zneimer	Councilmember	City of South Pasadena	1414 Mission Street	South Pasadena	CA	91030
Honorable	Kathryn	Barger	County Supervisor	Los Angeles County Board of Supervisors, District 5	500 West Temple Street, Room 869	Los Angeles	CA	90012
Honorable	Hilda	Solis	County Supervisor	Los Angeles County Board of Supervisors, District 1	10643 Valley Blvd. #36	El Monte	CA	91731
Honorable	Chris	Holden	Assemblymember	California State Assembly, District 41	600 North Rosemead Boulevard, Suite 117	Pasadena	CA	91107
Honorable	Mike	Fong	Assemblymember	California State Assembly, District 49	1255 Corporate Center Dr. Suite 216	Monterey Park	CA	91754
Honorable	Wendy	Carrillo	Assemblymember	California State Assembly, District 52	1910 West Sunset Blvd. Suite 810	Los Angeles	CA	90026
Honorable	Miguel	Santiago	Assemblymember	California State Assembly, District 54	320 West 4th St. Room 1050	Los Angeles	CA	90013
Honorable	Anthony	Portantino	State Senator	California State Senate, District 25	601 East Glenoaks Blvd Suite 210	Glendale	CA	91207
Honorable	Maria Elena	Durazo	State Senator	California State Senate, District 26	1808 W. Sunset Blvd.	Los Angeles	CA	90026

Appendix A Section 4(f) DE MINIMIS DETERMINATION

INTRODUCTION

This section of the document discusses de minimis impact determinations under Section 4(f). Section 6009(a) of SAFETEA-LU amended Section 4(f) legislation at 23 United States Code (USC) 138 and 49 USC 303 to simplify the processing and approval of projects that have only de minimis impacts on lands protected by Section 4(f). This amendment provides that once the U.S. Department of Transportation (USDOT) determines that a transportation use of Section 4(f) property, after consideration of any impact avoidance, minimization, and mitigation or enhancement measures, results in a de minimis impact on that property, an analysis of avoidance alternatives is not required and the Section 4(f) evaluation process is complete.

FHWA's final rule on Section 4(f) de minimis findings is codified in 23 Code of Federal Regulations (CFR) 774.3 and CFR 774.17.

Responsibility for compliance with Section 4(f) has been assigned to the Department pursuant to 23 USC 326 and 327, including de minimis impact determinations, as well as coordination with those agencies that have jurisdiction over a Section 4(f) resource that may be affected by a project action.

HISTORIC PROPERTIES

De minimis impacts on historic sites are defined as the determination of either "no adverse effect" or "no historic properties impacted" in compliance with Section 106 regulations, including SHPO's written concurrence and ACHP's written concurrence, when applicable. With the Programmatic Agreement in place for Section 106, the Department must inform the SHPO in writing that a non-response for the purposes of a "no adverse affect" or a "no historic properties affected" determination will be treated as the written concurrence for the de minimis determination; to streamline the process this may be combined with the Section 106 PA notification letter to SHPO regarding the finding of effect. No separate noticing or public review is required.

PROJECT DESCRIPTION

Alternative 1: No-Build (No-Action) Alternative

The No Build Alternative would maintain the existing facility in its present condition and without any improvements. No change in environmental conditions would occur under this alternative as the project would not take place. No construction costs are associated with this alternative and there are no impacts to rights-of-way, utilities, or traffic. The No Build Alternative would not meet the Purpose and Need. In addition, this alternative is inconsistent with Caltrans' mission, vision, and goals.

Alternative 2: Build Alternative

N110-N5 Connector Sidehill Viaduct Postmile 25.34 (Bridge No. 53-2225G):

- Remove the existing viaduct and dead-end sidewalk remnant and replace with a retaining wall (see Figure 3 through Figure 5).
- Widen right shoulder from 2 feet to 10 feet.
- Remove the existing entire bridge structure and construct a retaining wall to support shoulder widening and concrete barrier railing Type 836.
- Upgrade three overhead sign structures and three overhead sign panels.
- Upgrade crash cushions and install channelizers at the gore area.
- Upgrade four highway safety lighting.
- Upgrade roadway signs along the connector.
- Install rumble strips at the edge of connector's right shoulder.
- Upgrade/replace 65 feet MGS (Midwest Guardrail System) on N110 before the N110-N5 connector.

Ave 43 Offramp Postmile 27.08 (Bridge No. 53-0985S):

The existing bridge railings will be replaced with Concrete Barrier Type 68H (Mod)-Concrete Baluster post and beam see-thru barrier. Existing overhang will be removed and reconstructed to accommodate new overhang and bridge railing.

Arroyo Seco Channel Bridge Postmile 30.1 (Bridge No. 53-0276):

The existing bridge railings will be replaced with Concrete Barrier Type 85 (Mod)-Metal Baluster post and beam see-thru barrier. The existing 6'-2'' sidewalk and curb railing will be removed, and a portion of the deck will be removed to accommodate the new concrete barrier on the replacement deck.

Right of way impacts are not anticipated, but a Temporary Construction Easement (TCE) to construct the retaining wall on N110-N5 Connector Sidehill Viaduct (Bridge No. 53-2225G) may be necessary. APN #: 5415-003-900.

SECTION 4(F) DE MINIMIS DETERMINATION(S)

After delineating the Area of Potential Effect (APE), it was determined that two historic properties existing within the APE. First, the National Register of Historic Places (NRHP) listed Arroyo Seco Parkway Historic District (ASPHD), with two (2) contributing resources and one (1) non-contributing resource corresponding to locations of construction. The other is the NRHP determined eligible Arroyo Seco Flood Control Channel (ASFCC), of which a segment is also a contributing resource to the ASPHD. The ASPHD is also considered a state-owned historical resource for the purposes of PRC 5024 and is on the Master List.

After applying the Criteria of Adverse Effect, three (3) potential criteria applied to the proposed project's work within the two (2) historic properties. Two (2) contributing resources of the ASPHD, the Avenue 43 Offramp and the Arroyo Seco Channel Bridge, will have their bridge rails altered (ii) which will change its physical features or CDFs that contribute to the historical significance of the district (iv). Additionally, the removal and replacement of the non-contributing Riverside Drive Offramp Viaduct (N110-N5 Connector Sidehill Viaduct) in addition to the formerly mentioned two (2) new bridge rails could potentially introduce visual elements that might diminish the integrity of the district's significant historic features (v). There will be no effect to the ASFCC due to it only being included in the APE for temporary access.

Even though, the proposed undertaking will remove two (2) original bridge railings on two (2) contributing bridges of the ASPHD, there is not enough of an effect to the integrity of the ASPHD as to diminish its eligibility of listing in the NRHP. The ASPHD contains a high-level o contributing bridges with their original bridge railings (65.9%) and the loss of two (2) original bridge railings would only decrease that percentage to 62.79%. Additionally, the new proposed bridge railings of Concrete Barrier Type 85 Mod (Concrete Baluster) and Concrete Barrier Type 85 Mod (Metal Baluster) are a compatible (see Figure 6 and Figure 7 of DED), context sensitive design that lessens the visual and setting effects of the project, while still being clearly differentiated from the original railings. Therefore, the replacement of two (2) bridge rails will have No Adverse Effect to the ASPHD.

Further, after consulting the above referenced sources, which include records searches completed as part of other projects that cover the project area, a total of 90 previous investigations have been conducted within the 0.5- mile records search radius between 1974 and 2017. Of these, 28 of the investigations overlap the APE and were conducted between 1974 and 2014. The 28 studies cover the total of APE. The 90 investigations were comprised of cultural resources surveys, general environmental documents, and ethnographic overviews for Los Angeles County.

When the project work is analyzed within the context of the entire district, using context sensitive designs (the three types of bridges rails and retaining wall aesthetic treatment) and the large majority of contributing resources still retaining high levels of integrity and original bridge rails, the overall effects to the ASPHD are considered Not Adverse and that there will be No Effect to the ASFCC.

Caltrans has received concurrence on the FNAE on September 3, 2024, which can be found in Chapter 4 Comments and Coordination of the DED.

AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

If human remains are discovered, California Health and Safety Code (H&SC) Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. If the remains are thought by the coroner to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), who, pursuant to PRC Section 5097.98, will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact Kimberly Harrison at (213) 266-6935 or kimberly.harrison@dot.ca.gov so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

CUL MIN- 1: Caltrans' standard specification to stop work in the event that artifacts or other cultural materials are encountered will apply, i.e., should buried cultural materials be encountered during construction, it is Caltrans policy that work in that area must stop until a qualified archaeologist can evaluate the nature and significance of the find. Should project plans change to include unsurveyed areas, additional archaeological studies will be required.

Appendix B Title VI/Non-Discrimination Policy Statement

CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, GOVERNOR

California Department of Transportation

OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS–49 | SACRAMENTO, CA 94273–0001
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September 2023

NON-DISCRIMINATION POLICY STATEMENT

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

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

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

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 639-6392 or visit the following web page: https://dot.ca.gov/programs/civil-rights/title-vi.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Civil Rights, at PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 879-6768 (TTY 711); or at Title.VI@dot.ca.gov.

TONY TAVARES
Director

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Appendix C FTIP/RTP Listings

FTIP ID
LALS04

FTIP ID: LALS04 , 999 - 0.0 / 0.0 - Route 999: Grouped Projects For Bridge Rehabilitation And Reconstruction - SHOPP Program. Projects Are Consistent With 40 CFR Part 93.126 Exempt Tables 2 Categories - Widening Narrow Pavements Or Reconstructing Bridges (No Additional Travel Lanes)

DISTRICT 7 (Los Angeles County) - 2023 FTIP - MPO: SCAG
CYCLE: 22/23 - 25/26
FTIP AMENDMENT #23-12 [PROJECT LISTING]

FUND NAME	EA	PROJECT LOCATION/DESCRIPTION	FTIP AMENDMENT	2022/23	2023/24	2024/25	2025/26
SHOPPAC	32090	Route 001: In Long Beach, at the San Gabriel River Bridge No. 53-0060. Widen bridge and upgrade bridge rail.	23-06	$ 4,413	$ 44,370		
	34490	Route 103: In the city of Los Angeles, near Wilmington, at the Anaheim Street Overhead No. 53-2627. Upgrade bridge rail.	23-12		$ 7,059		
	34610	Route 001: In Long Beach, at Los Angeles River Bridge No. 53-0341 and De Forest Avenue Undercrossing No. 53-1047. Seismic retrofit, upgrade bridge rails and lighting, and upgrade facilities to Americans with Disabilities Act (ADA) standards. (G13 Contingency) - Total Project Cost: $18,248,000	23-02	$ 13,117			
	34820	Route 210: In La Canada Flintridge and Pasadena, from West of Foothill Boulevard to Hill Avenue. Seismic retrofit of Orange Grove Boulevard Overcrossing No. 53-2195, rehabilitate irrigation system and landscaping, and rehabilitate culverts.	23-02		$ 14,406		
	34870	Route 210: In La Canada Flintridge, from east of Route 2 to west of Angeles Crest Highway on E2-W210 Connector Undercrossing No. 53-2191G, and Foothill La Canada Separation No. 53-2138. Add Light Emitting Diode (LED) lighting to one bridge and one tunnel.	23-12		$ 15,402		
	34890	Route 039: Near Azusa, at Van Orum Canyon Bridge No. 53-0115. Upgrade bridge rail and install guardrail.	23-02		$ 2,364		
	35130	Route 002: In the city of Los Angeles, at E2-N5 Ramp and W2-S5 Ramp Tunnel No. 53-0577. Seismic retrofit existing tunnel and upgrade guardrail.	23-02	$ 10,239			
	35150	Route 002: In Los Angeles County, on various routes at Santa Monica Bridge No. 53-0675, First Street Undercrossing No. 53-0582, Alvarado Street Separation No. 53-0617 and Avenue 60 on and offramp Bridge No. 53-0986S. Upgrade bridge rails, upgrade guardrail, and upgrade facilities to Americans with Disabilities Act (ADA) standards.	23-12	$ 3,027	$ 10,698		
	35390	Route 405: In Lawndale, at Route 107, at Hawthorne Undercrossing Bridge No.53-1231. Seismic retrofit of bridge and upgrade facilities to Americans with Disabilities Act (ADA) standards.	23-02	$ 5,505			
	35470	Route 710: In Commerce and Vernon, at Hobart Rail Yard Overhead No. 53-0840; also at Bandini Boulevard (PM 22.0). Rehabilitate, clean, and paint bridge, and replace overhead sign structure.	23-12		$ 21,734		
	36060	Route 101: In the city of Los Angeles, at the Argyle-Franklin Undercrossing Bridge No. 53-0680; also on Route 210 at the Big Tujunga Wash Bridge No. 53-2249 (PM R9.9). Rehabilitate bridges by resurfacing bridge decks, reconstructing approach and departure slabs, seismically retrofitting columns, and slope paving with rock blanket.	23-02	$ 3,593		$ 25,445	
	36930	Route 110: In the cities of Los Angeles and South Pasadena, at Avenue 43 Ramp Bridge No. 53-0985S and Arroyo Seco Bridge No. 53-0276. Upgrade bridge rails. (Long Lead Project)	23-02	$ 1,245			
	36960	Route 101: In Los Angeles and Ventura Counties, on Routes 101 and 118 at various locations. Upgrade overhead sign structures and sign panels.	23-02	$ 1,802	$ 3,047		$ 17,921
	37010	Route 014: Near Lancaster, at Avenue G Overcrossing Bridge No. 53-1860. Financial Contribution Only (FCO) to city of Lancaster to replace bridge.	23-02				$ 2,000
	37120	Route 010: In the city of Los Angeles, at State Street Overcrossing Bridge No. 53-1328, State Street Overcrossing Bridge No. 53-0130, and State Street Overcrossing (Ramp Spur) Bridge No. 53-1350k. Upgrade bridge railing, traffic signals, and street lights, improve the turning radius at one intersection, and reconstruct sidewalks.	23-02	$ 1,064	$ 2,797		$ 16,542
	37130	Route 110: In the city of Los Angeles, near the neighborhood of Cypress Park, at N110-N5 Connector Sidehill Viaduct Bridge No. 53-2225G. Modify bridge structure to support a shoulder widening and a new concrete barrier railing, and upgrade overhead sign structure, sign panels, and safety devices. (Long Lead Project)	23-02	$ 1,795			
	39020	Route 047: In the city of Los Angeles, near the Port of Long Beach, at Vincent Thomas Bridge No. 53-1471. Replace bridge deck and seismic sensors. This is a Construction Manager/General Contractor (CMGC) project.	23-12	$ 17,140	$ 20,917		$ 668,334
	0W350	Route 091: In Long Beach, at LA River (W91 - N710 & S710) Bridge No. 53-2143F. Replace portions of the bridge deck and apply polyester concrete overlay. (Bridge Deck Preservation)	23-02	$ 5,018			

2022 State Highway Operation & Protection Program

Los Angeles County

(Dollars in Thousands)

DIST:	PPNO:	EA:	CTIPS ID:
07	5701	36930	109-0000-4721

CT PROJECT ID: 0719000373

COUNTY: Los Angeles County

ROUTE: 110

PM: 27.1/30.1

TITLE (DESCRIPTION):
(In the cities of Los Angeles and South Pasadena, at Avenue 43 Ramp Bridge No. 53-0985S and Arroyo Seco Bridge No. 53-0276. Upgrade bridge rails.
(Long Lead Project))

Performance Measure: Linear feet rail Quantity: 1,040.00

ELEMENT: SHOPP Major Const.
SPONSOR: Caltrans
MPO: Southern California Association of Governments
CORRIDOR:
PRJ MGR:
PHONE: (0) 0-
CALNET:
MPO ID: 9 LAW: 22

ASSEMBLY: 41, 51
SENATE: 24, 25
CONGRESS: 27, 34

Implementing Agency: PAED - PSE - RW - CON -

PROJECT VERSION HISTORY *(Printed Version is Shaded)* **(Last 9 versions displayed)**

Version	Status	Date	Updated By	Change Reason	Amend No.	Vote	Cum Award	Programmed Dollars in Thousands - Total For Project: Prog Con	Prog RW	PA & ED	PS & E	RW Sup	Con Sup
2	Official	06/29/22	GBAINS	Allocation - CTC Vote		1,245		5,775	6	1,245	2,412	59	2,782
1	Official	03/16/22	LSTOCKTO	Approved - New Project	22H-000			5,775	6	1,245	2,412	59	2,782

Fund Source 1 of 2 SHOPP - Bridge Preservation SMC - SHOPP Major Const.

Fund Type:
Road Maintenance and Rehabilitation Account

Program Code:
20.XX.201.112 -

Funding Agency:

VOTE	DATE	AMOUNT
PAED	06/29/202:	1,245

	PRIOR	22/23	23/24	24/25	25/26	26/27	27/28	FUTURE	TOTAL
PA&ED		1,245							1,245
PS&E									
R/W SUP									
CON SUP									
R/W									
CON									
Others									
Total:		1,245							1,245

Fund Source 2 of 2 SHOPP - Future Need SMC - SHOPP Major Const.

Fund Type:
Long Lead

Program Code:
20.XX.201.2XX - SHOPP - Long Lead

Funding Agency:

VOTE	DATE	AMOUNT

	PRIOR	22/23	23/24	24/25	25/26	26/27	27/28	FUTURE	TOTAL
PA&ED									
PS&E					2,412				2,412
R/W SUP					59				59
CON SUP							2,782		2,782
R/W							6		6
CON							5,775		5,775
Others									
Total:					2,471		8,563		11,034

Project Total:

VOTE	TOTAL AMOUNT
PAED	1,245
PSE	
rw	
con	

	PRIOR	22/23	23/24	24/25	25/26	26/27	27/28	FUTURE	TOTAL
PA&ED		1,245							1,245
PS&E					2,412				2,412
R/W SUP					59				59
CON SUP							2,782		2,782
R/W							6		6
CON							5,775		5,775
FTIPPE									
Total:		1,245			2,471		8,563		12,279

6/30/22: Made COS allocation (PA&ED) official - GB
******** Version 2 - 06/29/2022 ********
Entered COS allocation (PA&ED) – AF
****** Version 1 - 03/16/2022 ******
New 2022 SHOPP project

2022 State Highway Operation & Protection Program

Los Angeles County

(Dollars in Thousands)

DIST:	PPNO:	EA:	CTIPS ID:
07	5740	37130	109-0000-4726

CT PROJECT ID: 0720000152

COUNTY: Los Angeles County

ROUTE: 110

PM: 25.5/25.7

TITLE (DESCRIPTION):
(In the city of Los Angeles, near the neighborhood of Cypress Park, at N110-N5 Connector Sidehill Viaduct Bridge No. 53-2225G. Modify bridge structure to support a shoulder widening and a new concrete barrier railing, and upgrade overhead sign structure, sign panels, and safety devices. (Long Lead Project))

Performance Measure: Linear feet rail Quantity: 600.00

ELEMENT: SHOPP Major Const.
SPONSOR: Caltrans
MPO: Southern California Association of Governments
CORRIDOR:
PRJ MGR:
PHONE: (0) 0-
CALNET:
MPO ID: 9 LAW: 22

ASSEMBLY: 51
SENATE: 24
CONGRESS: 34

Implementing Agency: PAED - PSE - RW - CON -

PROJECT VERSION HISTORY *(Printed Version is Shaded)* **(Last 9 versions displayed)**

Version	Status	Date	Updated By	Change Reason	Amend No.	Vote	Cum Award	Prog Con	Prog RW	PA & ED	PS & E	RW Sup	Con Sup
2	Official	06/29/22	GBAINS	Allocation - CTC Vote		1,795		17,112	1,346	1,795	2,558	200	3,653
1	Official	03/16/22	LSTOCKTO	Approved - New Project	22H-000			17,112	1,346	1,795	2,558	200	3,653

Fund Source 1 of 2 SHOPP - Bridge Preservation SMC - SHOPP Major Const.

Fund Type:
Road Maintenance and Rehabilitation Account

Program Code:
20.XX.201.112 -

Funding Agency:

VOTE	DATE	AMOUNT
PAED	06/29/202:	1,795

	PRIOR	22/23	23/24	24/25	25/26	26/27	27/28	FUTURE	TOTAL
PA&ED		1,795							1,795
PS&E									
R/W SUP									
CON SUP									
R/W									
CON									
Others									
Total:		1,795							1,795

Fund Source 2 of 2 SHOPP - Future Need SMC - SHOPP Major Const.

Fund Type:
Long Lead

Program Code:
20.XX.201.2XX - SHOPP - Long Lead

Funding Agency:

VOTE	DATE	AMOUNT

	PRIOR	22/23	23/24	24/25	25/26	26/27	27/28	FUTURE	TOTAL
PA&ED									
PS&E					2,558				2,558
R/W SUP					200				200
CON SUP							3,653		3,653
R/W							1,346		1,346
CON							17,112		17,112
Others									
Total:					2,758		22,111		24,869

Project Total:

VOTE	TOTAL AMOUNT
PAED	1,795
PSE	
rw	
con	

	PRIOR	22/23	23/24	24/25	25/26	26/27	27/28	FUTURE	TOTAL
PA&ED		1,795							1,795
PS&E					2,558				2,558
R/W SUP					200				200
CON SUP							3,653		3,653
R/W							1,346		1,346
CON							17,112		17,112
FTIPPE									
Total:		1,795			2,758		22,111		26,664

6/30/22: Made COS allocation (PA&ED) official - GB
******** Version 2 - 06/29/2022 ********
Entered COS allocation (PA&ED) – AF
****** Version 1 - 03/16/2022 ******
New 2022 SHOPP project

Appendix D Avoidance, Minimization and/or Mitigation Summary

Environmental Commitment	Phase
NS-1 MIN: Section 14-8.02, Sound Control Requirements, of Caltrans standard specifications states that overnight construction noise levels should not exceed sustained 86 dBA at 50 feet from the job site activities. These requirements also state that noise levels generated during construction shall comply with applicable local, state, and federal regulations. Incorporating the standard sound control requirements into the project would address temporary construction noise-related potential impacts.	Design & Construction
ES-1 MIN: Early coordination, including notification of lane closures and detours, will be conducted with local emergency service providers to minimize potential delays or disruptions.	Pre-Construction & Construction
UT-1 MIN: If protection or relocation of utilities is required, early coordination and communication with utility service providers will be conducted to ensure that impacts from the disruption of services is minimized.	Pre-Construction & Construction
GT MIN-1: A zone of required investigation (ZORI) for landslide hazard mapped by the California Geological Survey (CGS) slope stability issues must be accounted for during construction.	Pre-Construction & Construction
GT MIN-2: A slope stability analysis will have to be performed for temporary conditions during the construction of the northbound connector retaining wall.	Pre-Construction & Construction
HAZ MIN-1: A site investigation (SI) will be required for this project during PS&E to determine the actual concentration of lead to prepare the special provisions for handling and disposal of the contaminated soils. For estimating purposes, please consider the top 3.5 feet of excavated soil in the unpaved areas within 30 feet from the edge of traveled way to be contaminated with ADL requiring disposal to a Class I facility as Type Z-3 soil.	Plans Specifications, and Estimates (PS&E)

Environmental Commitment	Phase
HAZ MIN-2: The contractor is required to prepare a project specific Lead Compliance Plan (LCP) to protect workers from the hazards of lead during disturbance and/or excavation of ADL impacted soil.	Pre-Construction & Construction
HAZ MIN-3: For areas with hazardous waste concentrations of lead, the soil can be reused in the immediate area of disturbance and must not be transported elsewhere.	Construction
HAZ MIN-4: A lead compliance plan (LCP) will be required to protect workers from the hazard from lead.	PS&E, pre-construction
HAZ MIN-5: Notification to the South Coast Air Quality Management District (SCAQMD) is required prior to renovation or demolition of a structure regardless of whether asbestos is detected or not. If the ACM survey identifies asbestos, the appropriate special provision (SSP/NSSP 14-11.16) will be provided for the PS&E package.	PS&E
HAZ MIN-6: The LBP survey must be performed by a Licensed Lead Inspector/Supervisor. Funds for removal and disposal of LBP need to be included in project cost estimate if LBP is detected.	PS&E
HAZ MIN-7: Prior to starting construction, the contractor shall inspect the existing electrical equipment and components to determine if they contain any hazardous materials. The handling and disposal of electrical waste is governed by the latest Caltrans Standard Specifications section 14-11.15, Disposal of Electrical Equipment Requiring Special Handling. All electrical parts containing hazardous material shall be packaged and transported to an appropriate hazardous waste disposal facility.	PS&E & pre-construction
HAZ MIN-8: If traffic stripe will be removed from pavement prior to demolition, SSP(s) for the removal, management, and disposal will be prepared for the PS&E package.	PS&E

Environmental Commitment	Phase
HAZ MIN-9: The appropriate SSP for lead, chromium in yellow thermoplastic, and painted striping will be provided to address the hazards to workers and management of residue for the PS&E package.	PS&E
HAZ MIN-10: If traffic stripe is removed from pavement prior to demolition, the Contractor is required to prepare a Lead Compliance Plan (LCP) to address protection of workers from exposure to the hazards from lead. The LCP shall be prepared by a certified industrial hygienist (CIH) and submitted to Caltrans for review and acceptance.	Pre-construction
HAZ MIN-11: If the project requires imported borrow, the contractor is responsible to perform analytical tests to ensure that imported borrow is free of contamination per SSP 6-1.03B, Imported Borrow.	Pre-Construction & Construction
HAZ MIN-12: Any change in the scope of work will require a Hazardous Waste Re-Assessment.	All Phases
AQ-1 MIN: Objectionable odors should also be minimized by conducting certain construction activities in areas at least 500 feet from the sensitive receptors as feasible. A part of review of design plans and specifications, the AQB will also coordinate for approval of a nonstandard special provision (NSSP) 14-9.05 to mandate contractors' compliance with the applicable air district rules including measures related to dust control.	PS&E & Construction
GHG-1 MIN: It is recommended that the PDT review, evaluate, and consider project measures in Tables 1 and 3 of the Toolbox GHG reduction measures Toolbox (ca.gov) and that the projects commit to include all feasible and relevant measures identified from the Tables. If any measures are proposed outside the Tables in the Toolbox, the PDT shall ensure that those measures are biddable, buildable, and can be successfully implemented. All identified reduction measures shall be carried forward in the ECR.	PS&E

Environmental Commitment	Phase
GHG-2 MIN: Limit idling to 5 minutes for delivery and dump trucks and other diesel-powered equipment.	Construction
GHG-3 MIN: Schedule truck trips outside of peak morning and evening commute hours.	Construction
GHG-4 MIN: For improved fuel efficiency from construction equipment: • Maintain equipment in proper tune and working condition • Use right sized equipment for the job • Use equipment with new technologies	Construction
GHG-5 MIN: Use alternative fuels such as renewable diesel for construction equipment whenever possible.	Construction
GHG-6 MIN: Salvage rebar from demolished concrete and process waste to create usable fill.	Construction
GHG-7 MIN: Maximize use of recycled materials (tire rubber for example).	Construction
GHG-8 MIN: Reduce construction waste. For example, reuse or recycle construction and demolition waste (reduces consumption of raw materials, reducing waste and transportation to landfill; saves costs).	Construction
GHG-9 MIN: Use recycled water or reduce consumption of potable water for construction.	Construction

Environmental Commitment	Phase
GHG-10 MIN: All construction contracts include Caltrans Standard Specifications related to air quality. Section 7-1.02A and 7 1.02C, Emissions Reduction, requires contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all ARB emission reduction regulations. Section 14-9.02, Air Pollution Control, requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions.	PS&E
BIO-1 MIN: This Division of Environmental Planning will be provided with the plans and project Specifications & Expenditures (PS&E) Package for review and comments.	PS&E
BIO-2 MIN: The project Biologist must be invited to the pre-construction meeting, with one-week prior notice.	Pre-construction
BIO-3 MIN: If the project scope should change for any reason, the Division of Environmental Planning will be notified immediately to determine whether current environmental documentation is adequate.	All Phases
BIO-4 MIN: If any species of concern are observed during construction activities, all work shall immediately cease, and the Caltrans District Biologist shall be immediately notified. Work shall not resume until clearance is given by the District Biologist.	Construction
BIO-5 MIN: If access to the Los Angeles River or Arroyo Seco Channels is necessary, it is highly recommended that any work conducted below the bridge deck should be done by lowering a suspended utility boom bucket from a truck on the top of the bridge, with cherry pickers, or other methods that do not require access or impacts to the two concrete channels.	Construction
BIO-6 MIN: This project must employ all appropriate Stormwater and Erosion Control Best Management Practices (BMPs), and these must be incorporated into the project specifications. Prior to the start of construction all drain inlets and outlets must be protected with BMPs to prevent construction materials and debris from entering drainages.	Pre-Construction & Construction

Environmental Commitment	Phase
BIO-7 MIN: Work shall cease when the chance of rain is more than 30% and is forecasted for the future 72 hours.	Construction
BIO-8 MIN: All pollution and litter laws and regulations will be followed by the Contractor and all personnel on site.	Construction
BIO-9 MIN: The contractor shall not introduce any invasive species during construction. Methods of invasive control include washing equipment regularly, monitoring the site for invasive species, and removal of invasive species by qualified personnel when they occur.	Construction
BIO-10 MIN: There will be no vegetation removal with this project. If it is determined that vegetation must be removed, the Caltrans District Biologist will be notified two weeks prior to removal of vegetation or commencement of construction to determine if birds are nesting. Bird nesting season is normally February 1st through September 1st; however, bird nesting behavior has begun earlier than expected due to current weather patterns. In the event that nesting birds are observed, the Caltrans District Biologist should be contacted, and the contractor should not conduct removal of nests until it is determined that the fledglings have left the nest. If this is not possible, coordination with the District Biologist should take place in order to minimize the risk of violating the Migratory Bird Treaty Act, and the following minimization measure put in place: a buffer of 150 ft. for songbirds and 500 ft. for raptors which must be maintained during all phases of construction during the nesting bird season. Nesting birds may not be impacted by any construction activity including noise and dust pollution along with destruction of habitat.	Construction
BIO-11 MIN: If vegetation removal or construction should occur during the bird nesting season, surveys will be conducted to determine presence of nesting birds, and appropriate minimization measures will be implemented to comply with the Migratory Bird Treaty Act, since adherence to the Migratory Bird Treaty Act is another regulatory requirement.	Construction

Environmental Commitment	Phase
BIO-12 MIN: Caltrans District Biologist must be notified two weeks prior to construction so that preconstruction surveys may be conducted, and exclusionary devices and methods may be discussed, per the following standard specification: 14-6.03 Bird Protection.	Pre-construction
BIO-13 MIN: Caltrans anticipates day or night roosting and breeding from March 1 to October 31. Caltrans must protect bats from disturbance caused by work within the project. Bats roost inside bridges and on trees year-round but are most active between March and October. If bats are found where there will be activity, do not start work in that area until bat species have been identified and approved bat exclusionary and roosting preventive measures are in place. A Caltrans District Biologist will conduct a survey before construction to determine the presence or absence of regulated bat species. Surveys will include monitoring bat activity, identifying types of bats present, determining appropriate buffers, and determining requirements for bat exclusionary and roosting preventive measures. Surveys may include nighttime surveys, entering bridge box girders or being lifted with equipment to check for bats in bridge joints and crevices.	Construction
BIO-14 MIN: If bats are discovered at the project site, do not use construction and lighting equipment until approved bat exclusionary and roosting preventive measures are in place. If ordered, use bat exclusionary and roosting preventive measures such as bat houses, weep-hole covers, and netting or fabric on a regular basis to prevent their occupation, or perform any combination of these.	Construction
BIO-15 MIN: It is also highly recommended that that work be conducted outside of the roosting bat season (October 31 to March 1) for the LA-110 Bridge (Bridge Number 53-2225G) over the Los Angeles River and the LA-110 Bridge (Bridge Number 53-0276) over the Arroyo Seco Channel. Hence, it is recommended that work on these two bridges should be confined to October 31 to February 1, while work on the Avenue 43 Bridge (Bridge Number 53-0985S) should avoid the nesting bird season (from September 1 to February 1). If this is not feasible, exclusionary devices for bats and birds may be necessary.	Construction

Environmental Commitment	Phase
BIO-16 MIN: Construction should be limited to the period outside of the bird nesting season, which is from September 1 to February 1. If work is conducted during the nesting bird season, from February 1 to September 1, nesting bird surveys by a qualified biologist must be conducted a minimum of 3 days before commencement of work. For songbirds and raptors, if there are active nests, a buffer zone of 150 feet or 500 feet, respectively, must be established with no work in the buffer zone until the fledglings can flee the project area.	Construction
BIO-17 AV: If work will be conducted during nesting bird season (from February 1 to September 1) and/or conducted during roosting bat season (March 1 to October 31) for the LA-110 Bridge (Bridge Number 53-2225G) over the Los Angeles River and the LA-110 Bridge (Bridge Number 53-0276) over the Arroyo Seco Channel, exclusionary devices will be necessary. Hence, it is recommended that work on these two bridges should be confined to October 31 to February 1, while work on the Avenue 43 Bridge (Bridge Number 53-0985S) should avoid the nesting bird season (from February 1 to September 1). If this is not feasible, exclusionary devices for bats and birds may be necessary.	Construction
BIO-18 MIN: The Department will also apply dust control measures to minimize the amount of dust in the air and make air quality in the area suitable for workers and the adjacent residences and wildlife.	Construction
VIS-MIN 1: The design strategy is to retain the visual character of existing aesthetic features. The aesthetic treatment on the retaining wall and concrete barrier are to complement the color and pattern of other structures in the corridor. The existing concrete or metal baluster posts on the concrete barrier with see thru opening will be replaced with similar material and design.	Design & PS&E
VIS-MIN 2: Avoid and/or minimize removal of existing vegetation. At the connector ramp, a few unhealthy trees on the slope between the retaining wall and flood control channel wall will be removed. Replacement trees are not proposed due to lack of safe access and limited space. No trees are anticipated to be removed at Ave 43 Bridge and Arroyo Seco Channel Bridge.	Construction

Environmental Commitment	Phase
VIS-MIN 3: Metallic surfaces, where feasible and applicable, are to be treated with oxidizing agent to appear aged and non-reflective.	PS&E & Construction
VIS-MIN 4: Apply erosion control to all disturbed slopes; seed species, if applicable, to be California native plants or native to the Arroyo Seco Watershed.	Construction
TR-1 MIN: A Transportation Management Plan (TMP) will be prepared and implemented for the project during the construction phase of the project, which will include public information, motorist information, incident management, construction, demand management, and alternate routes or detours.	Construction
TR-2 MIN: A Construction Staging Plan would be prepared and implemented during construction.	Construction
TR-3 MIN: Prior to construction, coordination would be conducted with public transportation agencies to provide rerouting information, including operating schedules, to the public at least one month in advance of any service disruptions.	Pre-construction
PALEO MIN-1: A Qualified Paleontologist/Paleontological Monitor must monitor the project site as described in Table 8. This individual will be responsible for the collection and salvage of fossil materials. A Caltrans Paleontological Coordinator shall review resumes and qualifications prior to construction.	Pre-construction
PALEO MIN-2: Worker Training and On-call Paleontological Monitoring Prior to any ground disturbances for the project, a Qualified Paleontologist would inform the worker crew about the geologic formations that may be encountered during excavations, including the types of material associated with each of those formations (i.e., fill, clay, sand, etc.). The Qualified Paleontologist would document the training in a worker training log. An example worker training log is provided in Appendix 3 of the Paleontological Evaluation Report and Paleontological Mitigation Report (August 2024).	Pre-construction

Environmental Commitment	Phase
PALEO MIN-3: If significant fossils are discovered during excavations, the trained work crew would immediately notify the Resident Engineer, who has the authority to stop all work in the immediate vicinity of the discovery/excavation per SSP-14-7.03. The Resident Engineer would immediately notify an on-call Paleontological Monitor, who would evaluate the discovery and consult with the Qualified Paleontologist, Caltrans, museum repositories, and local experts, as applicable, to determine if salvage, recovery, and curation is required per SSP 14-7.04. For significant paleontological resources, a recovery program would be initiated that would follow the general steps outlined herein, with refinements as needed based on the type and nature of the discovery.	Construction
PALEO MIN-4: All project-related excavations, including the depth, may become available and Caltrans shall provide these data as soon as possible. Most excavations are anticipated to encounter Puente Formation for the removal, constructing the new proposed earth retaining system and widening. Therefore, paleontological monitoring is required as described in Table 8.	PS&E Phase
PALEO MIN-5: Salvage and recovery operations as well as Laboratory efforts guidance is described in the Paleontological Evaluation Report and Paleontological Mitigation Report (August 2024), which is available upon request.	Construction
PALEO MIN-6: Donation to Repository or Museum Specimens shall be cataloged, and a complete list shall be prepared of specimens introduced into the collections or a repository by the curator of the museum or university. Adequate storage includes curation of individual specimens into the collection of a recognized, nonprofit paleontological specimen repository with a permanent curator, such as at the museum repository. A complete set of field notes, geologic maps, and stratigraphic sections must accompany the fossil collections. An example letter donating salvaged paleontological resources to an institution is provided in Appendix 4 of the Paleontological Evaluation Report and Paleontological Mitigation Report (August 2024).	Construction

Environmental Commitment	Phase
PALEO MIN-7: Preparation of Paleontological Mitigation Report A final Paleontological Mitigation Report (PMR) shall be prepared by the project Paleontologist documenting implementation of the approved PMP. The report would adhere to Caltrans SER guidelines and would include, at a minimum, discussions of project impacts, regulatory requirements, purpose of mitigation, regional geologic context, project stratigraphy, stratigraphic and geographic distribution of paleontological resources, field and laboratory methods and procedures, fossil recovery, and paleontological significance. The report would also include geological cross sections and stratigraphic sections depicting fossil discovery localities and excavated rock units; maps showing the project location and vicinity, as well as project geology and location of discovered fossil localities; appropriate photographs or illustrations depicting monitoring conditions, field context of collecting localities, quarry maps, and laboratory activities; and appendices including an itemized listing of catalogued fossil specimens, complete descriptions of all fossil collecting localities, an explanation of report acronyms and terms, and a signed curation agreement with an approved paleontological repository.	Construction/Post Paleo Monitoring
CUL MIN- 1: Caltrans' standard specification to stop work in the event that artifacts or other cultural materials are encountered will apply, i.e., should buried cultural materials be encountered during construction, it is Caltrans policy that work in that area must stop until a qualified archaeologist can evaluate the nature and significance of the find. Should project plans change to include unsurveyed areas, additional archaeological studies will be required.	Construction

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Appendix E Notice of Preparation

SCH NO. 2023120015

NOTICE OF PREPARATION

To:	Responsible, Trustee and Federal Agencies	From:	California Dept. of Transportation District 7 Environmental Planning 100 South Main Street (MS16A) Los Angeles, CA 90012

Subject: **Notice of Preparation of a Draft Environmental Impact Report**
Reference: California Code of Regulations, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, 15375.

Project Title: SR-110 Bridge Replacement & Railing Upgrade Project

Project Location: The SR-110 Postmiles (25.34/30.1) in the City of Los Angeles and South Pasadena within Los Angeles County.

Project Description: The California Department of Transportation (Caltrans) is proposing improvements on SR-110 Postmiles (25.34/30.1) in the City of Los Angeles and South Pasadena within Los Angeles County. The Project consists of 2 alternatives, one "No Build" Alternative and one "Build Alternative" that will replace N110-N5 Connector Sidehill Viaduct (Bridge No. 53-2225G) and upgrade the bridge railing of Avenue 43 Ramp Bridge (Bridge #53-0985S) and Arroyo Seco Channel Bridge (Bridge #53-0276).

This is to inform you that Caltrans will be the lead agency and will prepare an environmental impact report (EIR) for the project described below. Your participation as a responsible agency is requested in the preparation and review of this document.

The purpose of this notice is : (1) to serve as the Notice of Preparation to potential Responsible Agencies, agencies involved in funding or approving the Project, and Trustee Agencies responsible for natural resources affected by the Project pursuant to Section 15082 of the CEQA Guidelines; and (2) to advise and solicit comments and suggestions regarding the preparation of an EIR, environmental issues to be addressed in the EIR, and related issues, from interested parties other than those noted above, including interested or affected members of the public. Caltrans requests that any potential Responsible or Trustee Agency responding to this notice do so in a manner consistent with the CEQA Guidelines Section 15082 (b).

We need to know the views of your agency as to the scope and content of the environmental information that is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

A more detailed project description, location map, and the potential environmental effects are contained in the attached materials.

A copy of the EIR is not attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 45 days after receipt of this notice.

Please direct your response to Kelly Ewing-Toledo, Deputy District Director, Division of Environmental Planning, California Department of Transportation, District 7, 100 South Main Street, MS 16A, Los Angeles, CA 90012 or via e-mail at SR110BridgeComments@dot.ca.gov

Date: 12/1/23

JASON ROACH

Senior Environmental Scientist
Division of Environmental Planning

Project Description

Caltrans is proposing improvements on SR-110 Postmiles (25.34/30.1) in the City of Los Angeles within Los Angeles County. The Project consists of 2 alternatives, one "No Build" Alternative and one "Build Alternative" that will replace N110-N5 Connector Sidehill Viaduct (Bridge No. 53-2225G) and upgrade the bridge railing of Avenue 43 Ramp Bridge (Bridge #53-0985S) and Arroyo Seco Channel Bridge (Bridge #53-0276).

The scope of work for the Build Alternative is as follows:

N110-N5 Connector Sidehill Viaduct Postmile 25.34 (Bridge No. 53-2225G):

- Remove the existing viaduct and sidewalk and replacing with a retaining wall
- Widen right shoulder from 2 feet to 10 feet.
- Remove the existing entire bridge structure and construct a retaining wall to support shoulder widening and concrete barrier railing Type 836.
- Upgrade three overhead sign structures and three overhead sign panels.
- Upgrade crash cushions and install channelizers at the gore area.
- Upgrade four highway safety lighting.
- Upgrade roadway signs along the connector.
- Install rumble strips at the edge of connector's right shoulder.
- Upgrade/replace 65-LF MGS (Midwest Guardrail System) on N110 before the N110-N5 connector.

Ave 43 Offramp Postmile 27.08 (Bridge No. 53-0985S):

- Replace bridge railing on N110 at Ave 43 Ramp Bridge.
- Bridge railings will be replaced with Concrete Barrier (Type 85 Mod)
- Existing overhang will be removed and reconstructed to accommodate new barrier reinforcement, as well as additional transverse deck bars required at post locations.

Arroyo Seco Channel Bridge Postmile 30.1 (Bridge No. 53-0276):

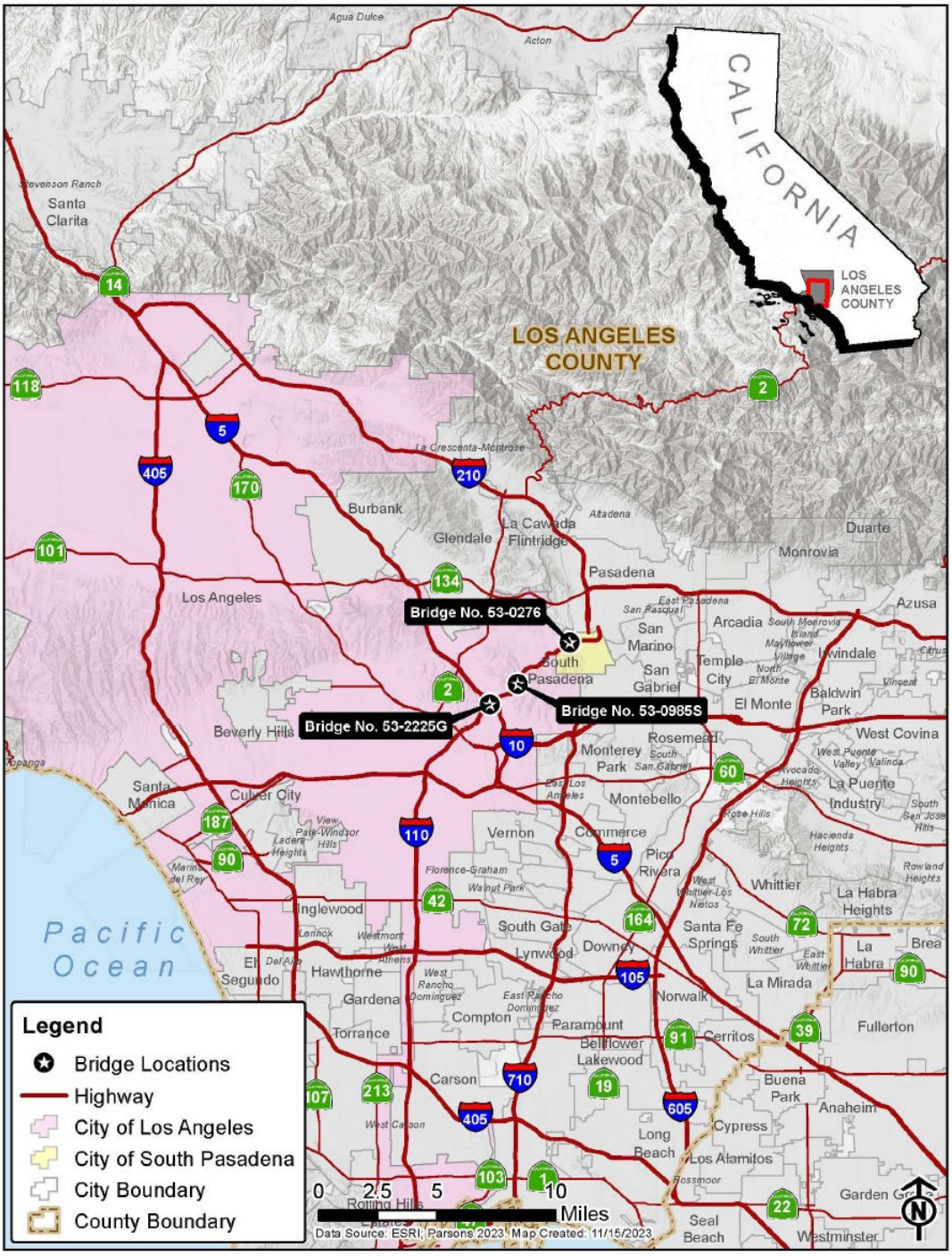
- Replace bridge railing on N110 and S110 at Arroyo Seco Channel Bridge.
- The existing 6'-2" curb and railing will be removed and reconstruct portion of the deck to accommodate new barrier reinforcement, as transverse deck bars required at post locations.

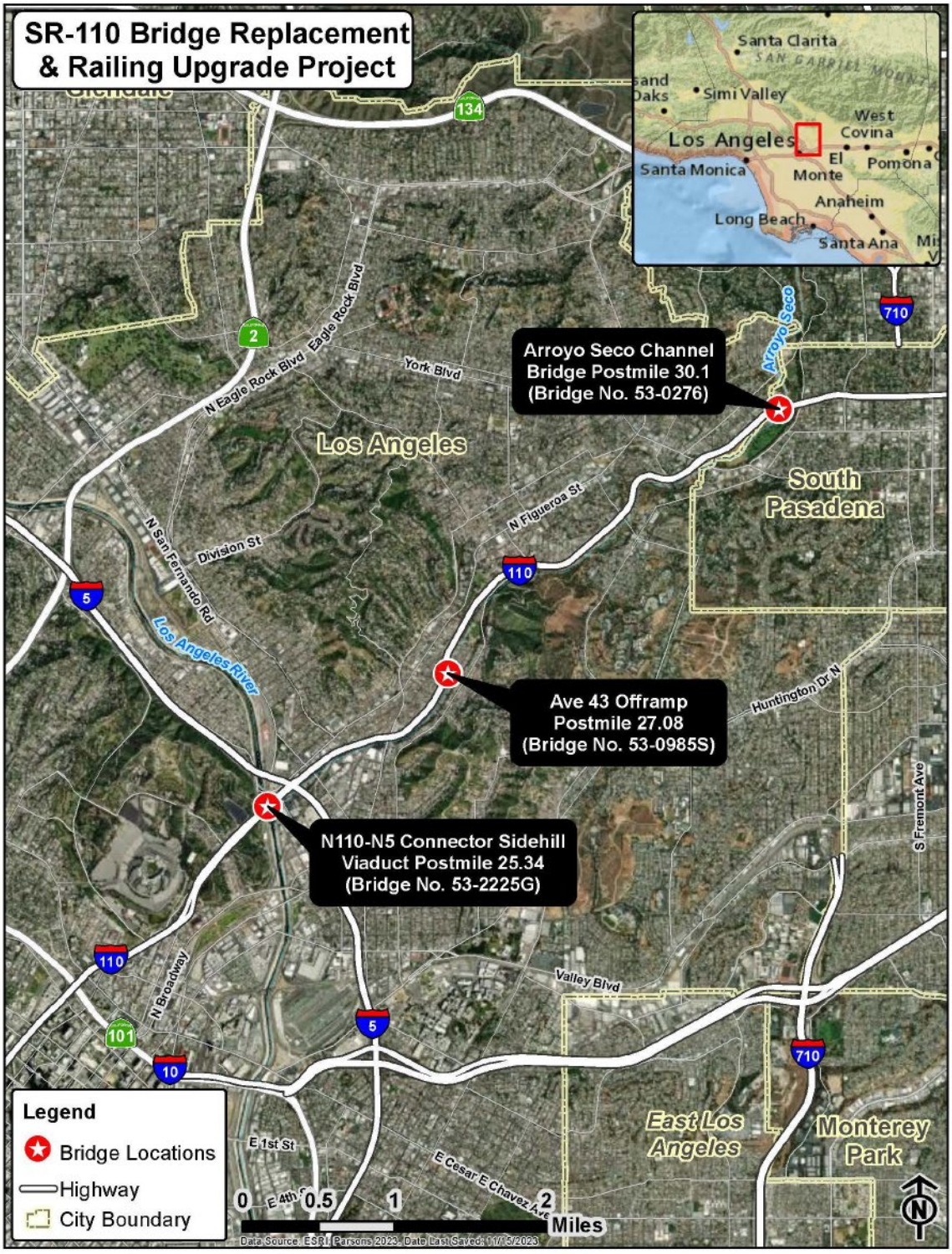
Right of way impacts are not anticipated, but a Temporary Construction Easement (TCE) to construct the retaining wall may be necessary.

Potential Environmental Impacts

Various environmental resources are known to exist within the limits of the study area. These potential impacts include but are not limited to: cultural resources due to impacts to the Arroyo Seco Parkway Historic District, aesthetics, biological resources, Section 4(f), hazardous materials, utilities/service systems, hydrology/water quality, noise, transportation/traffic, and construction impacts. Avoidance, minimization, and/or mitigation measures will be developed in order to reduce any potential impacts.

SR-110 Bridge Rail Upgrade/Replacement Project
PROJECT LOCATION MAPS




SR-110 Bridge Replacement & Railing Upgrade Project
Santa Clarita
Simi Valley
Los Angeles
West Covina
El Monte
Pomona
Santa Monica
Anaheim
Long Beach
Santa Ana
Arroyo Seco Channel Bridge Postmile 30.1 (Bridge No. 53-0276)
Ave 43 Offramp Postmile 27.08 (Bridge No. 53-0985S)
N110-N5 Connector Sidehill Viaduct Postmile 25.34 (Bridge No. 53-2225G)
Los Angeles
South Pasadena
East Los Angeles
Monterey Park
Eagle Rock Blvd
York Blvd
N San Fernando Rd
Division St
N Figueroa St
Los Angeles River
Huntington Dr N
S Fremont Ave
N Broadway
Valley Blvd
E 1st St
E Cesar E Chavez Ave
Legend
Bridge Locations
Highway
City Boundary
0 0.5 1 2 Miles
Data Source: ESRI, Parsons 2023. Date Last Saved: 11/ 5/2023

Appendix F List of Technical Studies

The following studies and/or technical analyses have been prepared and are incorporated by reference into this Environmental Impact Report/Environmental Assessment and can be located at:

FHWA Community Impact Assessment Checklist (September 2023)

Community Impact Assessment Memo (September 2023)

Traffic Noise Impact Memo (September 2023)

Project Initiation Report for EA 37130 (April 2021)

Project Initiation Report for EA 36930 (June 2021)

SR-110 Safety Enhancement Project Final Environmental Impact Report/ Environmental Assessment with Finding of No Significant Impact and Section 4(f) Evaluation (June 2017)

Natural Environment Study-Minimal Impacts (January 2024)

Visual Impact Assessment Memorandum (February 2024)

Geotechnical Impacts Memo (January 2024)

Air Quality and Greenhouse Gas Assessment (January 2024)

Hazardous Waste Assessment (February 2024)

Energy Analysis Memo (January 2024)

Historic Property Survey Report (July 2024) Please note, many state and federal laws limit the disclosure of sensitive cultural and tribal resource information to the public. Additional information regarding confidentiality of these resources can be found in the Standard Environmental Reference Volume 2 in Section 3.4.13 and Section 5.3.6.

Finding of No Adverse Effect (July 2024) Please note, many state and federal laws limit the disclosure of sensitive cultural and tribal resource information to the public. Additional information regarding confidentiality of these resources can be found in the Standard Environmental Reference Volume 2 in Section 3.4.13 and Section 5.3.6.

Archaeological Survey Report (June 2024) Please note, many state and federal laws limit the disclosure of sensitive cultural and tribal resource information to the public. Additional information regarding confidentiality of these resources can be found in the Standard Environmental Reference Volume 2 in Section 3.4.13 and Section 5.3.6.

COMBINED PALEONTOLOGICAL EVALUATION REPORT AND PALEONTOLOGCAL MITIGATION REPORT (August 2024)

Cumulative Impacts Report (September 2024)

Section 4(f) Memo (September 2024)

Resources:

https://dot.ca.gov/programs/esta/sb-743/resources Accessed: 9/26/2023

https://sustainability.onramp.dot.ca.gov/submit-sb-743-documents Accessed: 9/26/2023

SB 743: Rethinking How We Build so Californians Can Drive Less Overview (July 2020)

SB 743: Rethinking How We Build so Californians Can Drive Less Technical (July 2020)

Caltrans Transportation Analysis under CEQA (September 2020), https://dot.ca.gov/-/media/dot-media/programs/esta/documents/2020-09-10-1st-edition-tac-fnl-a11y-new-nov2021.pdf Accessed 12/5/2023

https://www.climatestotravel.com/climate/united-states/pasadena Accessed: 1/16/2024

https://en.wikipedia.org/wiki/Arroyo_Seco_Parkway Accessed 10/16/2024

Appendix G Glossary of Technical Terms

ACTIVE FAULT: A fault that has moved within late Quaternary time (the last 750,000 years). Note that this definition is broader than that used by the California Department of Conservation, California Geological Survey (CGS), which defines an active fault as one that has moved within Holocene time (the last 11,000 years).

AMBIENT: Refers to surrounding, external, or unconfined conditions.

AMBIENT NOISE: Exterior sound (the surrounding sound from all sources near and far).

ANADROMOUS: Refers to fish that typically inhabit seas or lakes but ascend streams to spawn; for example, salmon.

AREA OF POTENTIAL EFFECT (APE): A term used in Section 106 of the National Historic Preservation Act to describe the area in which historic resources may be affected by a federal undertaking.

ARTERIAL: A highway or local road that primarily serves through traffic

AS-BUILTS: The final plans of a project after the project is constructed. These plans show the original design, as well as changes that occurred during construction.

ATTAINMENT AREA: A geographic area in which levels of a criteria air pollutant meet the health-based primary standard (national ambient air quality standard, or NAAQS) for the pollutant. An area may have an acceptable level for one criteria air pollutant but may have unacceptable levels for others. Thus, an area could be both attainment and nonattainment at the same time. Attainment areas are defined using federal pollutant limits set by the U.S. EPA.

AUXILARY LANE: The portion of the roadway adjoining the traveled way for speed change, turning, weaving, truck climbing, maneuvering of entering and leaving traffic, and other purposes supplementary to through-traffic movement. Auxiliary lanes are used to balance the traffic load and maintain a more uniform level of service on the highway. They facilitate the positioning of drivers at exits and the merging of drivers at entrances.

BACKWATER: The rise in water surface elevation due to encroachment.

BASE FLOOD: The flood having a one percent (1%) chance of being equaled or exceeded in any given year (100-year flood).

BASE FLOOD ELEVATION (BFE): The water surface elevation of the base flood.

BASE FLOOD PLAIN: The area subject to flooding by the base flood.

BENEFICIAL USE: A use of a natural water resource that enhances the social, economic, and environmental well-being of the user. Twenty-one beneficial uses are defined for the waters of California, ranging from municipal and domestic supply to fisheries and wildlife habitat.

BEST MANAGEMENT PRACTICE (BMP): Any program, technology, process, operating method, measure, or device that controls, prevents, removes, or reduces pollution.

BOG: Wetland ecosystem characterized by an accumulation of peat, acid conditions, and dominance of sphagnum moss.

BORROW: Soil brought in from another area.

BYPASS: An arterial highway or local road that permits traffic to avoid part or all of an urban area.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA): State legislation enacted in 1970 and subsequently amended. It requires public agencies to regulate activities which may affect the quality of the environment so that major consideration is given to preventing damage to the environment.

CALIFORNIA TRANSPORTATION COMMISSION (CTC): A State Commission, established by State Assembly Bill 402 (AB 402) with nine appointed member and two ex-officio members, responsible for the programming and allocating of funds for the construction of highway, passenger rail, and transit improvements throughout California. The CTC also provides guidance and recommendations on transportation policies.

CALIFORNIA TRANSPORTATION PLAN (CTP): The CTP is a long-range transportation policy plan that is submitted to the Governor. The CTP is developed in collaboration with partners, presents a vision for California's future transportation system, and defines goals, policies, and strategies to reach the vision. It is developed in consultation with the State's regional transportation planning agencies, is influenced by the regional planning process, and provides guidance for developing future RTPs. RTPs should be consistent with and implement the vision and goals of the CTP. As defined by State statute, the CTP is not project specific.

CAPACITY: The maximum amount of traffic that can be accommodated by a uniform segment of freeway under prevailing conditions.

CHANNELIZATION: The use of traffic markings or islands to direct traffic into certain paths, for instance, a "channelized" intersection directs portions of traffic into a left-turn lane through the use of roadway islands or striping that separates the turn lane from traffic going straight.

CLEAR RECOVERY ZONE: Unobstructed, relatively flat or gently sloping area beyond the edge of the traffic lane, which affords the drivers of errant vehicles the opportunity to regain control.

CONVENTIONAL HIGHWAY: A highway without control of access that may or may not be divided.

COOPERATING AGENCY: "Cooperating Agency," under NEPA, means any agency other than the lead agency which has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal for any action significantly affecting the human environment.

CORRIDOR: A strip of land between two termini within which traffic, topography, environment, and other characteristics are evaluated for transportation purposes.

COUNCIL OF GOVERNMENTS (COG): A voluntary consortium of local governments formed to cooperate on problem solving, e.g., regional transportation planning and programming. Some RTPAs and MPOs are COGs.

CUMULATIVE IMPACT (CEQA): The CEQA definition of cumulative impact comes from the Office of Planning and Research (OPR). Section 15355 of OPR's CEQA Guidelines provides the following context:
Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. a) The individual effects may be changes resulting from a single project or a number of separate projects.

B) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

CUMULATIVE IMPACT (NEPA): The NEPA definition of a cumulative impact comes from the Council on Environmental Quality (CEQ), which defines a cumulative impact as: …the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. (40 CFR §1508.7.)

dba: A-weighted decibels are adjusted to approximate the way the average person hears sound.

DECIBEL: With respect to sound, decibels measure a scale from the threshold of human hearing, 0 decibels, upwards towards the threshold of pain, about 120-140 decibels. Because decibels are such a small measure, they are computed logarithmically and cannot be added arithmetically. An increase of 10 decibels is perceived by the human ear as a doubling of noise.

DEMAND: The transportation need at a point in time, e.g., traffic volume on a segment of road at a point in time, projected traffic volume on a segment of road in a future year, current peak period ridership on a bus route, children crossing at a signed intersection on school days.

DEMOGRAPHY, DEMOGRAPHIC: The study of populations with reference to birth and death rates, size and density, distribution, migration, and other vital statistics.

DESIGN CAPACITY: The maximum number of vehicles that can pass over a lane or a roadway during one hour without operating conditions falling below a pre-selected design level.

DESIGN CONCEPT: The type of facility identified by the project, e.g., freeway, expressway, arterial highway, grade-separated highway, reserved right-of-way rail transit, mixed-traffic rail transit, exclusive busway, etc.

DESIGN SCOPE: The design aspects which will affect the proposed facility's impact on regional emissions, usually as they relate to vehicle or person carrying capacity and control, e.g., number of lanes or tracks to be constructed or added, length of project, signalization, access control including approximate number and location of interchanges, preferential treatment for high-occupancy vehicles, etc.

DIRECT EFFECTS: Effects that are caused by and action and occur at the same time and place as the action.

ECOSYSTEM: The biotic community and its abiotic environment functioning on a system.

ENCROACHMENT (FEMA DEFINITION): Construction, placement of fill, or similar alteration of topography in the floodplain that reduces the area available to convey floodwaters. FHWA definition: An action within the limits of the base floodplain.

ENCROACHMENT (FHWA): An action within the limits of the base floodplain.

ENDANGERED: Plant or animal species that are in danger of extinction throughout all or a significant portion of its range.

ENVIRONMENTAL DOCUMENT: “Environmental Document” means draft or final Environmental Impact Statement (EIS) or Environmental Impact Report (EIR), Finding of No Significant Impact (FONSI), Environmental Assessment (EA) or Negative Declaration (ND)/Mitigated Negative Declaration (MND). A categorical exemption or exclusion is not considered an environmental document; it is rather the determination that the project is exempt/excluded from the requirement to prepare an environmental document.

ENVIRONMENTAL PROTECTION AGENCY [UNITED STATES] (U.S. EPA): An agency of the executive branch of the federal government charged with establishing and enforcing environmental regulations.

EROSION: The wearing away of the land surface by running water, wind, ice, or other geological agents.

EXPANSIVE SOILS: Soil deposits that have the capacity or a tendency to expand during weather or seismic events.

FALSEWORK: A temporary frame to support a structure during construction.

FAULT CREEP: Slow ground displacement occurring without accompanying earthquakes.

FEDERAL HIGHWAY ADMINISTRATION (FHWA): The Federal agency within the U.S. Department of Transportation responsible for administering the Federal-aid Highway Program and the Motor Carrier Safety Program.

FEDERAL REGISTER (FR): The *Federal Register* is the official daily publication for agency rules, proposed rules, and notices of federal agencies and organizations, as well as for Executive Orders and other presidential documents.

FEDERAL TRANSIT ADMINISTRATION (FTA): An agency within the U.S. Department of Transportation responsible for administering federal funds for public transportation planning, programming, and projects.

FEDERAL STATE TRANSPORTATION IMPROVEMENT PROGRAM (FSTIP): A multiyear statewide, financially constrained, intermodal program of projects that is consistent with the statewide transportation plan (CTP) and regional transportation plans (RTPs). The FSTIP is developed by Caltrans and incorporates all of the MPOs *and* RTPAs FTIPs by reference. Caltrans then submits the FSTIP to FHWA.

FEDERAL TRANSPORTATION IMPROVEMENT PROGRAM (FTIP): A constrained 4-year prioritized list of all transportation projects that are proposed for federal and local funding. The FTIP is developed and adopted by the MPO/RTPA and is updated every 2 years. It is consistent with the RTP, and it is required as a prerequisite for federal funding.

FINDING OF NO SIGNIFICANT IMPACT (FONSI): A document by a federal agency briefly presenting the reasons why an action, not otherwise categorically excluded, will not have a significant effect on the human environment and therefore does not require the preparation of an EIS.

FLOOD BOUNDARY AND FLOODWAY MAP (FBFM): The floodplain management map issued by FEMA that depicts, on the basis of detailed analyses, the boundaries of the 100- and 500-year floodplain and the regulatory floodway.

FLOOD FREQUENCY: The statistical number of years that takes place before the recurrence of a flood of the same magnitude. (10-year flood, 50-year flood, 100-year flood,
etc.)

FLOOD INSURANCE RATE MAP (FIRM): The insurance and floodplain management map issued by FEMA that identifies, on the basis of detailed or approximate analyses, the areas of 100-year flood hazard in a community.

FLOODPLAIN: Any land area subject to inundation by floodwaters from any source.

FLOODWAY FRINGE: The portion of the 100-year floodplain that is not within the floodway and in which development and other forms of encroachment may be permitted under certain circumstances.

FOSSIL: Any remains, trace, or imprint of a plant or animal that has been preserved in the earth's crust since some past geologic time (Bates and Jackson 1980:243).

FRAGMENTATION: Reduction of a large habitat area into small, scattered remnants; reduction of leaves and other organic matter into smaller particles.

FRIABLE: Easily crumbled (as in friable soil).

FREEWAY: A divided arterial highway with full control of access and with grade separations
at intersections.

HABITAT: Place where a plant or animal lives.

HABITAT PROTECTION: Ensuring appropriate uses of land to maintain and optimize species habitat values.

HIGH OCCUPANCY TOLL (HOT) LANES: New HOV lanes that allow single occupant vehicles access for a fee.

HIGH OCCUPANCY VEHICLE (HOV) LANES: A lane of freeway reserved for the use of vehicles with set minimum number of occupants. Buses, taxis, carpools (which satisfy the occupancy minimum), and motorcycles generally may use HOV lanes.

HYDRIC SOIL: Soil subject to saturation or inundation.

IGNEOUS ROCKS: Formed when magma (liquid rock material) cools below the earth's surface or when lava cools above ground.

INDIRECT EFFECTS: Effects that are caused by an action and occur later in time, or at another location yet are reasonably foreseeable.

INTERCHANGE: A system of interconnecting roadways in conjunction with one or more grade separations providing for the routing of traffic between two or more roadways on different levels.

INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT (ISTEA): Federal transportation legislation adopted in 1991. It provided increased funding and program flexibility for multimodal transportation programs. Upon its expiration, ISTEA was succeeded by TEA-21.

INTERREGIONAL IMPROVEMENT PROGRAM (IIP): One of two component funding source programs that ultimately make up the State Transportation Improvement Program (STIP). The IIP receives 25% of the funds from the State Highway account. The IIP is the source of funding for the ITIP.

INTERREGIONAL TRANSPORTATION IMPROVEMENT PROGRAM (ITIP): A Statewide program of projects, developed by Caltrans for interregional projects that are primarily located outside of urbanized areas. The ITIP has a 4-year planning horizon and is updated every two years. It is submitted to the CTC along with the FTIP and taken together they are known as the STIP.

INTERREGIONAL TRANSPORTATION STRATEGIC PLAN (ITSP): A plan that describes and communicates the framework in which the state will carry out its responsibilities for the Interregional Transportation Improvement Program (ITIP).

LANE NUMBERING: On a multilane roadway, the lanes available for through travel in the same direction are numbered from left to right when facing in the direction of travel.

ldn: Average noise over one day and night.

LEAD AGENCY (CEQA): "Lead Agency" means the public agency which has primary responsibility for carrying out or approving a project which may have a significant effect on the environment and preparing the environmental document.

LEAD AGENCY (NEPA): The agency or agencies preparing or having taken primary responsibility for preparing the environmental impact statement.

leq: A measure of the average noise level during a specified period of time.

leq(h): Equivalent or average noise level for the noisiest hour.

LIQUEFACTION: The loss in the shearing resistance of a cohesionless soil, caused by an earthquake wave. The soil is turned into a fluid mass.

LITHIC: Consisting of or relating to stone or rock.

LITTORAL: Shallow water of a lake in which light penetrates to the bottom, permitting submerged, floating, and emergent vegetative growth; also shore zone of tidal water between high-water and low-water marks.

LOAD LIMITS: Weight restrictions used to prohibit vehicles that exceed a specified weight from using a transportation facility.

LONGITUDINAL ENCROACHMENT: An encroachment that is parallel to the direction of flow. Example: A highway that runs along the edge of a river is, usually considered a longitudinal encroachment.

MAGNITUDE: A measure of the strength of an earthquake or the strain energy released by it.

MAINTENANCE AREA: A federal term to describe any geographic region of the United States designated non-attainment pursuant to the Clean Air Act Amendments of 1990 (CAAA) and subsequently re-designated to attainment subject to the requirement to develop a maintenance plan under Section 175A of the CAAA.

MAJOR FEDERAL ACTION: Section 1508.18 of the CEQ Regulations states that "Major Federal action" includes actions with effects that may be major, and which are potentially subject to Federal control and responsibility. Major reinforces but does not have a meaning independent of significantly (Sec. 1508.27).” An EIS must be prepared for any major federal action significantly affecting the quality of the human environment.

MAJOR INVESTMENT: Federal regulations define a “major metropolitan transportation investment” as “a high-type highway or transit improvement of substantial cost that is expected to have a significant effect on capacity, traffic flow, level of service, or mode share at the transportation corridor or subarea scale” (23 CFR 450.104).

MARSH: Wetland dominated by grassy vegetation, such as cattails and sedges.

MAXIMUM CREDIBLE EARTHQUAKE (MCE): The maximum intensity earthquake that is assumed to occur closest to the site. This earthquake is also described as the maximum magnitude earthquake, or maximum earthquake.

MEDIAN: The portion of a divided highway separating the traveled ways in opposite directions.

METROPOLITAN PLANNING ORGANIZATION (MPO): A federal designation for the forum for cooperative transportation decision-making for an urbanized area with population of more than 50,000.

METROPOLITAN TRANSPORTATION IMPROVEMENT PLAN (MTIP): MTIP is a synonym for the FTIP, and it refers to the programming done by the MPO/RTPA as part of the development of the MTP. Also called **REGIONAL TRANSPORTATION IMPROVEMENT PLAN (RTIP).**

METROPOLITAN TRANSPORTATION PLAN (MTP): A federal and state mandated planning document prepared by MPOs and RTPAs. The plan describes existing and projected transportation needs, conditions, and financing affecting all modes within a 20-year horizon. Also called a **REGIONAL TRANSPORTATION PLAN (RTP).**

MIDDEN: A prehistoric refuse heap, usually containing shells and/or bones.

MIGRATION: Intentional, directional, and usually seasonal movement of animals between two regions or habitats; involves departure and return of the same individual.

MITIGATED NEGATIVE DECLARATION (MND): The CEQA document that is used when the Initial Study concludes that a project's potential significant effect on the environment can be reduced below the level of significance with the incorporation of mitigation measures.

MITIGATION BANK: Large blocks of land preserved, restored, and enhanced for the purpose of consolidating mitigation and/or mitigating in advance for projects that take listed species.

MIXED-FLOW LANE: A standard traffic lane for all types of vehicles, including single occupant cars, carpools, vans, buses, and trucks.

MONITORING WELL: A well drilled at a hazardous waste management site or Superfund site to collect groundwater samples for the purpose of physical, chemical, or biological analysis to determine the amounts, types, and distribution of contaminants in the groundwater beneath the site.

MOVING AHEAD FOR PROGRESS IN THE 21st CENTURY ACT (MAP-21): MAP-21 was signed into law by President Barack Obama on July 6, 2012. Funding surface transportation programs at over $105 billion for fiscal years (FY) 2013 and 2014, MAP-21 is the first long-term highway authorization enacted since 2005.

MULTIMODAL: Pertaining to more than one method of traveling.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA): Enacted in 1969, NEPA requires all federal agencies to consider environmental factors through a systematic interdisciplinary approach before committing to a course of action. The NEPA process is an overall framework for the environmental evaluation of federal actions.

NATIONAL HIGHWAY SYSTEM (NHS): Consists of 155,000 miles (plus or minus 15 percent) of the major roads in the U.S. Included will be all interstate routes, a large percentage of urban and rural principal arterials, the defense strategic highway network, and strategic highway connectors.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT (NPDES): "…is required for facilities and activities that discharge waste into surface waters from a confined pipe or channel."

NONATTAINMENT AREA: "Nonattainment Area" means any geographic region of the United States that the U.S. Environmental Protection Agency (U.S. EPA) has designated as a nonattainment area for a transportation related pollutant(s) for which a National Ambient Air Quality Standard (NAAQS) exists.

NONPOINT SOURCE: A "nonpoint source" is a dispersed source of pollution that is not identifiable as to specific location, but may be identified as contributing to water quality degradation from a tributary drainage area, e.g., pesticide residues distributed over an agricultural area.

NOTICE OF AVAILABILITY (NOA): "Notice of Availability" means a formal public notice under NEPA announcing the availability of a completed EA, DEIS, or FEIS. For EISs, publication of such notice in the Federal Register is required.

NOTICE OF COMPLETION (NOC): The CEQA notice submitted to the State Clearinghouse when an EIR, MND, or ND is completed.

NOTICE OF DETERMINATION (NOD): A "Notice of Determination" is a formal written notice under CEQA filed by a lead state agency when approving any project subject to the preparation of an EIR, MND, or ND.

NOTICE OF EXEMPTION (NOE): "Notice of Exemption" means a brief notice which may be filed by a public agency after it has decided to carry out or approve a project and has determined that the project is exempt from CEQA.

NOTICE OF INTENT (NOI): Under NEPA, the “Notice of Intent” is a notice that an Environmental Impact Statement will be prepared and considered. The Notice of Intent is published in the Federal Register by the lead federal agency. Under CEQA, a lead agency must also provide a “Notice of Intent to Adopt” an ND or MND to the public, responsible agencies, trustee agencies, and the county clerk of each county in which the proposed project is located.

NOTICE OF PREPARATION (NOP): "Notice of Preparation" is the CEQA notice that an EIR will be prepared for a project.

OVERCROSSING (O.C.): A local road structure that bridges over a state highway.

PARTICIPATING AGENCY: Under 23 USC 139, a participating agency is any federal or non-federal agency (state, tribal, regional, or local government agency) that may have an interest in the project. Nongovernmental organizations and private entities cannot serve as participating agencies.

POINT SOURCE: Distinct location from which wastes are discharged (e.g., pipes and sewers).

PRACTICABLE: The term *practicable* means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

PROJECT (CEQA): California Public Resources Code §21065 defines a “project” as an activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and which is any of the following:
A. An activity directly undertaken by any public agency.
B. An activity undertaken by a person which is supported, in whole or in part, throughout contracts, grants, subsidies, loans, or other forms of assistance from one or more public agencies.
C. An activity that involves the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies.

PROJECT (FHWA): 23 Code of Federal Regulations §1.2 defines a project as an undertaking by a State highway department for highway construction, including preliminary engineering, acquisition of rights-of-way and actual construction, or for highway planning and research, or for any other work or activity to carry out the provisions of the Federal laws for the administration of Federal-aid for highways.

RECEPTORS: Term used in air quality and noise studies that refers to houses or businesses that could be affected by a project.

RECORD OF DECISION (ROD): The “Record of Decision” is a formal written statement, required under NEPA, wherein a federal lead agency must present the basis for its decision to approve a selected project alternative, summarize mitigation measures incorporated into the project, and document any required Section 4(f) approval.

RECURRENCE INTERVAL: The average time interval between earthquake occurrences of equal magnitude on the same fault.

REGULATORY AGENCY: An agency that has jurisdiction by law.

REGIONAL IMPROVEMENT PROGRAM (RIP): One of two component funding source programs that ultimately make up the STIP. The RIP receives 75% of the funds from the State Highway account. This 75% is then distributed to the MPOs and RTPAs by a formula. The RIP is the source of funding for the FTIP.

REGIONAL TRANSPORTATION IMPROVEMENT PLAN (RTIP): RTIP is a synonym for the FTIP, and it refers to the programming done by the MPO/RTPA as part of the development of the RTP. Also called a **METROPOLITAN TRANSPORTATION IMPROVEMENT PLAN (MTIP).**

REGIONAL TRANSPORTATION PLAN (RTP): A federal and state mandated planning document prepared by MPOs and RTPAs. The plan describes existing and projected transportation needs, conditions, and financing affecting all modes within a 20-year horizon. Also called a **METROPOLITAN TRANSPORTATION PLAN (MTP)**.

REGIONAL TRANSPORTATION PLANNING AGENCY (RTPA): **A s**tate designated single or multi-county agency responsible for regional transportation planning. RTPAs are also known as Local Transportation Commissions or Councils of Governments and are usually located in rural or exurban areas.

REGULATORY EARTHQUAKE FAULT ZONES: Areas along faults defined as active by the California Geological Survey, typically one-quarter mile or less in width, where special studies are required to determine if there is a surface rupture hazard. Caltrans’ broader definition of active faults results in other areas that also need to be addressed for surface rupture. A site near a fault defined as active by Caltrans criterion also requires a review of surface rupture potential.

RESPONSIBLE AGENCY: A “public agency, other than the lead agency which has responsibility for carrying out or approving a project” (PRC 21069). The CEQA Guidelines further explains the statutory definition by stating that a “responsible agency” includes “all public agencies other than the Lead Agency which have discretionary approval power over the project” (14 CCR 15381). State and local public agencies that have discretionary authority to issue permits, for example, fall into this category.

REVEGETATION: Planting of indigenous plants to replace natural vegetation that is damaged or removed as a result of highway construction projects or permit requirements.

RIGHT-OF-WAY: A general term denoting land, property, or interest therein, usually in a strip acquired for or devoted to transportation purposes.

RIPARIAN: Along banks of rivers and streams; riverbank forests are often called gallery forests.

RIPRAP: Randomly placed rock or concrete used to strengthen an embankment or protect it
from erosion.

RISK ASSESSMENT: An economic and/or non-economic assessment of the impacts associated with the floodplain encroachment(s). It is meant to be more general in detail than a risk analysis. The format and content of the Summary Floodplain Encroachment Report form is the minimum required for a risk assessment.

ROTATIONAL SLIDE OR SLUMP: Landslide movement due to forces that cause a concave upwards surface in the mass.

RUDERAL: Disturbed area with a prevalence of introduced weedy species. Ruderal habitats are associated with unpaved highway shoulders and weedy areas around and between dwellings and other structures.

THE SAFE, ACCOUNTABLE, FLEXIBLE, EFFICIENT TRANSPORTATION EQUITY ACT: A LEGACY FOR USERS (SAFETEA-LU): SAFETEA-LU authorized the Federal surface transportation programs for highways, highway safety, and transit for the 5-year period 2005 to 2009.

SCENIC HIGHWAY SYSTEM: A list of the highways that are eligible to become, or are designated as, official scenic highways. Many state highways are located in areas of outstanding natural beauty. California's Scenic Highway Program was created by the Legislature in 1963. Its purpose is to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, §260 et seq.

SCOPING: NEPA defines scoping as an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action (40 CFR §1501.7). Under CEQA, scoping is designed to examine a proposed project early in the EIR environmental analysis/review process and is intended to identify the range of issues pertinent to the proposed project and feasible alternatives or mitigation measures to avoid potentially significant environmental effects.

SETBACKS: The minimum horizontal distance slopes shall be set back from site boundaries according to Chapter 70 of the Uniform Building Code. Also applies to the minimum horizontal distance required from faults to structures (see California Geological Survey Special Publication 42, pp. 27 and 29).

SETTLEMENT: The gradual downward movement of an engineered structure due to compression of the soil below the structure foundation.

SIGNIFICANCE (CEQA): CEQA defines a "significant effect on the environment" as “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant” (15382).

CEQA requires that the lead agency identify each “significant effect on the environment” resulting from the project and avoid or mitigate it. The CEQA Guidelines include mandatory findings of significance for certain effects, thus requiring the preparation of an EIR.

SIGNIFICANCE (NEPA): Under NEPA, an EIS is required when the proposed federal action has the potential to “significantly affect the quality of the human environment.” To determine that potential, one must consider both the context in which the action takes place and the intensity of its effect. Section 1508.27 of the CEQ regulations defines the term “significantly”
as:
Significantly as used in NEPA requires considerations of both context and intensity:
A. Context. This means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both shortand long-term effects are relevant.
B. Intensity. This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action. The following should be considered in evaluating intensity:
1. Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be
beneficial.
2. The degree to which the proposed action affects public health or safety.
3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic
rivers, or ecologically critical areas.

4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.
5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.
6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration
7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.
8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.
9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.
10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment. [43 FR 56003, Nov. 29, 1978; 44 FR 874, Jan. 3, 1979].
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SIGNIFICANT ENCROACHMENT: A highway encroachment and any direct support of likely base floodplain development that would involve one or more of the following construction or flood related impacts:
1. A significant potential for interruption or termination of a transportation facility, which is needed for emergency vehicles or provides a community's only evacuation route.
2. A significant risk *(to life or property)*, or
3. A significant adverse impact on natural and beneficial floodplain values.

SOIL CREEP: The gradual, steady downhill movement of soil and loose rock material.

SPECIAL-STATUS SPECIES: Plant or animal species that are either (1) federally listed, proposed for or a candidate for listing as threatened or endangered; (2) bird species protected under the federal Migratory Bird Treaty Act; (3) protected under state endangered species laws and regulations, plant protection laws and regulations, Fish and Game codes, or species of special concern listings and policies; or (4) recognized by national, state, or local environmental organizations (e.g., California Native Plant Society).

STATE HIGHWAY OPERATIONS AND PROTECTION PROGRAM (SHOPP): A legislatively created program to maintain the integrity of the State Highway System. It is tapped for safety and rehabilitation projects. SHOPP is a multi-year program of projects approved by the Legislature and Governor. It is separate from the STIP.

STATE IMPLEMENTATION PLAN (SIP): The state's plan for attaining the National Ambient Air Quality Standards. Per federal law, transportation plans and programs in air quality nonattainment areas must conform to the SIP.

STATE TRANSPORTATION IMPROVEMENT PROGRAM (STIP): A statewide or bundled prioritized list of transportation projects covering a period of four years that is consistent with the long-range statewide transportation plan, MTPs, and FTIPs, and required for projects to be eligible for funding under Title 23 USC and title 49 USC. Chapter 53.

STATE WATER RESOURCES CONTROL BOARD: The principal authority of California for regulation of the quantity and quality of waters of the State, established by act of the legislature in 1967. It assumed responsibility for administration of the Porter-Cologne Water Quality Control Act of 1969.

STATEMENT OF OVERRIDING CONSIDERATION: Pursuant to CEQA, a written explanation prepared by a public agency that explains why it approved a project, despite the presence of significant, unavoidable environmental impacts.

STATEWIDE TRANSPORTATION PLAN: The official statewide, intermodal transportation plan that is developed through the statewide transportation planning process.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP): A SWPPP is prepared to evaluate sources of discharges and activities that may affect storm water runoff, and implement measures or practices to reduce or prevent such discharges.

THREATENED: A species that is likely to become endangered in the foreseeable future in the absence of special protection.

TIERING: The process of preparing multiple levels of an environmental review, typically including general matter in broad environmental documents with subsequent narrower environmental documents.

TOTAL DISSOLVED SOLIDS: Concentration of all substances dissolved in water (solids
remaining after evaporation of a water sample).

TRACT: A standard geographical unit of measurement defined by the U.S. Census Bureau.

TRAFFIC ACCIDENT SURVEILLANCE AND ANALYSIS SYSTEM (TASAS): A system that provides a detailed list and/or summary of accidents that have occurred on highways, ramps, or intersections that are part of the State Highway System. Accidents can be selected by location, highway characteristics, accident data codes, and combinations of the above.

TRAFFIC FORECAST: A best estimate of future roadway travel conditions, demand, and resulting volumes.

TRAFFIC OPERATIONS: The safe and efficient movements of vehicles, people, and goods. The typical measures of effectiveness are travel times, delay, and accidents per vehicles miles.

TRANSLATIONAL SLIDE: Landslide movement that occurs predominantly along planar or gently undulating surfaces.

TRANSPORTATION CONTROL MEASURE (TCM): "... is any measure that is specifically identified and committed to in the applicable implementation plan that is either one of the types listed in §108 of the Clean Air Act or any other measure for the purpose of reducing emissions or concentrations of air pollutants from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions. Notwithstanding the above, vehicle technology-based, fuel-base, and maintenance-based measures which control the emissions from vehicles under fixed traffic conditions are not TCMs for the purposes of project-level conformity.

TRANSPORTATION DEMAND MANAGEMENT (TDM): "Demand-based" techniques for reducing traffic congestion, such as ridesharing programs and flexible work schedules enabling employees to commute to and from work outside of the peak hours.

TRANSPORTATION EQUITY ACT FOR THE 21ST CENTURY (TEA-21): Federal legislation signed into law in 1998, authorizing highway, highway safety, transit and other surface transportation programs for the following six years. TEA 21 built on the initiatives established in the 1991 ISTEA.

TRANSPORTATION IMPROVEMENT PLAN (TIP): A staged, multiyear, intermodal program of transportation projects which is consistent with the metropolitan transportation plan. It is a federal term.

TRANSPORTATION SYSTEM MANAGEMENT (TSM): TSM is 1) a process-oriented approach to solving transportation problems considering both long- and short-range implications; and 2) a services and operations process oriented in which low capital, environmentally-responsive, efficiency-maximizing improvements are implemented on existing facilities.

TRUSTEE AGENCY: "…a state agency having jurisdiction by law over natural resources affected by project which are held in trust for the people of the State of California. Trustee agencies include: a) the California Department of Fish and Game [Wildlife] with regard to the fish and wildlife of the state, to designated rare or endangered native plants, and to game refuges, ecological preserves, and other areas administered by the department; b) the State Lands Commission with regard to state owned "sovereign" lands such as the beds of navigable waters and state school lands;

c) the State Department of Parks and Recreation with regard to units of the State Park System; and d) the University of California with regard to sites within the Natural Land and Water Reserves System" (14 CCR 15386).

TYPE I PROJECTS: A proposed federal or federal-aid highway Project for the construction of a highway on new location or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment or increases the number of through-traffic lanes. Other specific activities that qualify as a Type I Project are defined in 23 CFR 772.

TYPE II PROJECTS: Usually called a retrofit project, a proposed federal or federal-aid highway project for noise abatement on an existing highway.

TYPE III PROJECTS: A federal or Federal-aid highway project that does not meet the classifications of a Type I or Type II project. Type III projects do not require a noise analysis.

UNDERCROSSING (U.C.): A state highway structure that bridges over a local road.

VERTICAL CLEARANCE: The unobstructed distance above the roadway surface; the height at which a vehicle may pass beneath a structure, such as a bridge, without any physical contact.

VIEWSHED: View; total visible area from the position of a single observer or the total visible area from observers in multiple positions.

VISUAL RESOURCES: The natural and artificial features of a landscape that characterize its form, line, texture, and color.

VISUAL UNITY: The visual coherence and compositional harmony of a landscape when considered as a whole.

WATERSHED: The area of land that drains into a specific waterbody.

WATERS OF THE UNITED STATES: As defined by the United States Army Corps of Engineers (USACE) in 33 CFR 328.3(a):
1. All waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce, including any such waters:
(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or

(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
(iii) Which are used or could be used for industrial purposes by industries in interstate commerce;
4. All impoundment of waters otherwise defined as waters of the United States under this definition;
5. Tributaries of waters identified in paragraphs 1-4;
6. The territorial seas;
7. Wetlands adjacent to waters (waters that are not wetlands themselves) identified in paragraphs 1-6.

WETLAND: Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

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[i] California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[ii] Federal standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3 is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

[iii] On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm. Transportation conformity applies in newly designated nonattainment areas for the 2015 national 8-hour ozone primary and secondary standards on and after August 4th, 2019 (see Transportation Conformity Guidance for 2015 Ozone NAAQS Nonattainment Areas).

[iv] ppm = parts per million

[v] Transportation conformity requirements for CO no longer apply after June 1, 2018 for the following California Carbon Monoxide Maintenance Areas (see U.S. EPA CO Maintenance Letter).

[vi] On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m^3 to 12 µg/m^3. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM10 standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[vii] µg/m^3 = micrograms per cubic meter

[viii] The 65 µg/m^3 PM2.5 (24-hr) NAAQS was not revoked when the 35 µg/m^3 NAAQS was promulgated in 2006. The 15 µg/m^3 annual PM2.5 standard was not revoked when the 12 µg/m^3 standard was promulgated in 2012. Therefore, for areas designated nonattainment or nonattainment/maintenance for the 1997 and or 2006 PM2.5 NAAQS, conformity requirements still apply until the NAAQS are fully revoked.

[ix] Final 1-hour NO2 NAAQS published in the Federal Register on 2/9/2010, effective 3/9/2010. Initial area designation for California (2012) was attainment/unclassifiable throughout. Project-level hot spot analysis requirements do not currently exist. Near-road monitoring starting in 2013 may cause re-designation to nonattainment in some areas after 2016.

[x] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the

annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

[xi] Secondary standard, the levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant rather than health. Conformity and environmental analysis address both primary and secondary NAAQS.

[xii] The ARB has identified vinyl chloride and the particulate matter fraction of diesel exhaust as toxic air contaminants. Diesel exhaust particulate matter is part of PM_{10} and, in larger proportion, $PM_{2.5}$. Both the ARB and U.S. EPA have identified lead and various organic compounds that are precursors to ozone and $PM_{2.5}$ as toxic air contaminants. There are no exposure criteria for adverse health effect due to toxic air contaminants, and control requirements may apply at ambient concentrations below any criteria levels specified above for these pollutants or the general categories of pollutants to which they belong.

[xiii] Lead NAAQS are not considered in Transportation Conformity analysis.

[xiv] In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.