Santa Cruz Route 1 Capital Preventative Maintenance (CAPM) Project

Pavement rehabilitation project on State Route 1 in Santa Cruz County,
from post mile 17.50 to post mile 20.20
05-SCR-1-PM 17.50-20.20
Project ID Number 0519000067

Initial Study
with Proposed Mitigated Negative Declaration

Volume 1 of 2

Prepared by the
State of California Department of Transportation

November 2023

Caltrans

General Information About This Document

What's in this document:

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

What you should do:

- Please read the document. Additional copies of the document and the related technical studies are available for review at the Caltrans District Office at 50 Higuera Street, San Luis Obispo, California 93401. Copies are also available at the Santa Cruz Public Libraries' Downtown Branch, located in downtown Santa Cruz at 224 Church Street, Santa Cruz, California 95060. The document can also be viewed and downloaded at the following website: https://dot.ca.gov/caltrans-near-me/district-5.
- Attend the hybrid public meeting at 5:30 p.m. on December 7, 2023, at the Santa Cruz Police Department at 155 Center Street, Santa Cruz, California 95060. To access the meeting virtually, please use the following link: https://cadot.webex.com/cadot/j.php?MTID=me8e02133bb6f6422cd9bc6149307f29d (password: missionstreet). To join by phone, dial +1-408-418-9388 (access code: 24814586597).
- Tell us what you think. If you have any comments regarding the proposed project, please attend the hybrid public meeting and/or send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to: Lara Bertaina, District 5 Environmental Division, California Department of Transportation, 50 Higuera Street, San Luis Obispo, California 93401. Submit comments via email to: lara.bertaina@dot.ca.gov.
- Submit comments by the deadline: December 28, 2023

What happens next:

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

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For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please write to or call Caltrans, Attention: Lara Bertaina, District 5 Environmental Division, 50 Higuera Street, San Luis Obispo, California 93401; phone number 805-779-0792 (Voice), or use the California Relay Service 1-800-735-2929 (Teletype to Voice), 1-800-735-2922 (Voice to Teletype), 1-800-855-3000 (Spanish Teletype to Voice and Voice to Teletype), 1-800-854-7784 (Spanish and English Speech-to-Speech), or 711.

05-SCR-1-PM 17.50-20.20
Project ID Number 0519000067

Pavement rehabilitation project on State Route 1 in Santa Cruz County, from post mile 17.50 to post mile 20.20

INITIAL STUDY
with Proposed Mitigated Negative Declaration

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

THE STATE OF CALIFORNIA
Department of Transportation
and
Local Agencies: The City of Santa Cruz and the Santa Cruz County Regional Transportation Commission
Cooperating Agencies: The U.S. Fish and Wildlife Service
Responsible Agency: California Transportation Commission

Jason Wilkinson
D5 Deputy District Director, Environmental Analysis
California Department of Transportation
CEQA Lead Agency

10/6/23
Date

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

Lara Bertaina, District 5 Environmental Division, 50 Higuera Street, San Luis Obispo, California 93401; phone 805-779-0792; email lara.bertaina@dot.ca.gov

DRAFT
Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: pending

District-County-Route-Post Mile: 05-SCR-1-PM 17.50-20.20

EA/Project Number: EA 05-1M110 and Project ID Number 0519000067

Project Description

The California Department of Transportation (Caltrans) proposes to rehabilitate 8.3 lane miles of flexible Class 2 pavement using Capital Preventive Maintenance strategies. These strategies include, but are not limited to, digouts, profile grinding, cold planing 0.15 foot of pavement, and placing 0.15 foot of Rubberized Hot Mix Asphalt overlay. The project would also include upgrading or replacing 91 curb ramps, replacing or upgrading guardrails, upgrading sign panels, replacing 0.10 lane mile of Class 2 bike lanes, and enhancing complete streets elements in coordination with the City of Santa Cruz and the Santa Cruz County Regional Transportation Commission.

Determination

An Initial Study has been prepared by Caltrans District 5. On the basis of this study, it is determined that the proposed action with the incorporation of the identified mitigation measures will not have a significant effect on the environment for the following reasons:

- During construction, if noise levels exceed 86 A-weighted decibels maximum noise level (dBA Lmax) at 50 feet from the job site from 9:00 p.m. to 6:00 a.m., corrective action would be taken to reduce noise levels below the threshold and minimize disruption due to construction noise. This measure would diminish noise levels or reduce exposure to noise for those affected. With the implementation of this measure, a less than significant impact would result.

_____

Jason Wilkinson
D5 Deputy District Director, Environmental Analysis
California Department of Transportation

_____

Date

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Chapter 1. Proposed Project

1.1. Introduction

The California Department of Transportation (Caltrans) is the lead agency under the California Environmental Quality Act (CEQA). Caltrans, as assigned by the Federal Highway Administration, is the lead agency under the National Environmental Policy Act (NEPA). As CEQA lead, Caltrans has prepared this Initial Study with Proposed Mitigated Negative Declaration for the project. As the NEPA lead, Caltrans has prepared a separate Categorical Exclusion for the project.

Caltrans proposes to rehabilitate 8.3 lane miles of flexible Class 2 pavement using Capital Preventive Maintenance strategies. These strategies include, but are not limited to, digouts (repair of more distressed areas of pavement through partial depth replacement), profile grinding, cold planing 0.15 foot of pavement, and placing 0.15 foot of Rubberized Hot Mix Asphalt overlay. The project would also include upgrading or replacing 91 curb ramps, repairing sidewalks, replacing or upgrading guardrails, upgrading sign panels and posts, replacing 0.10 lane mile of Class 2 bike lanes, enhancing the visibility of crosswalks, delineating bike boxes, enhancing pedestrian islands, and adding two bus stops in coordination with the City of Santa Cruz and the Santa Cruz County Regional Transportation Commission. The project would occur between post miles 17.50 and 20.20 on State Route 1. See Figure 1-1 for the Project Vicinity Map and Figure 1-2 for the Project Location Map.

1.2. Purpose and Need

1.2.1 Purpose

The purpose of the project is to comprehensively address roadway deficiencies on State Route 1 between post miles 17.50 and 20.20, with the goals to:

- Restore the ride quality and extend the service life of 8.3 lane miles of existing pavement by 10 years or more.
- Bring the guardrail and end treatments up to current standards.
- Improve Americans with Disabilities Act accessibility and meet current Americans with Disabilities Act ramp standards.
- Enhance sign panel visibility, increase the longevity of signs, and meet current Federal Highway Administration standards.

- Enhance the transportation network for pedestrians, cyclists, and users of public transit by enhancing crosswalk visibility and pedestrian safety.
- Improve bus access within the project limits by adding bus stops.

1.2.2 Need

The project is needed because certain assets are in poor condition and will continue to deteriorate if they are not repaired or replaced. Failure to address these deficiencies may disrupt service on the State Route 1 corridor through the project limits and would require more frequent maintenance activities. In addition, there is a need to enhance the transportation network for pedestrians, cyclists, and users of public transportation. Specific asset deficiencies that need to be addressed include the following:

- The pavement condition within the project limits is deteriorating and exhibiting unacceptable ride quality. Continued deterioration of this section of the roadway could result in it needing major roadway rehabilitation.
- Sections of guardrails and end treatments within the project limits do not meet the Manual for Assessing Safety Hardware standards for collision safety.
- Existing ADA curb ramps are outdated and do not meet current ADA standards. Spot sidewalk repairs are needed at several locations.
- Existing sign panels and posts are in poor condition and nearing the end of their service lives. The panels do not meet the current FHWA reflectivity standards.
- The existing 0.10 mile of Class 2 bike lanes are in a state of deterioration and in need of replacement.
- Many of the crosswalks and bike boxes within the project limits do not currently meet safety standards for visibility, and pedestrian islands are needed to reduce exposure to traffic.
- Additional bus stops are needed to increase the accessibility of public transit.

1.3. Project Description

Mainline and Shoulder Rehabilitation

The project proposes to rehabilitate 8.3 lane miles of flexible Class 2 pavement using Capital Preventive Maintenance strategies. Capital Preventative Maintenance strategies include but are not limited to digouts, profile grinding, cold planing 0.15 foot of pavement, and placing 0.15 foot of Rubberized Hot Mix Asphalt overlay. The anticipated design life of the new pavement is 10 years. The roadway would be re-striped upon completion.

The existing dike would be removed and replaced, and shoulder backing would be placed to manage erosion and weathering at the edge of the pavement.

Guardrail Upgrades

The project proposes to remove nonstandard guardrails and install the Midwest Guardrail System with appropriate end treatments. Embankments would be modified as necessary to reflect the changes to the Midwest Guardrail System and terminal end features.

ADA Curb Ramp and Sidewalk Improvements

A total of 91 curb ramps would be upgraded or replaced to conform to ADA standards. A total of 51 curb ramps would have truncated domes applied, and 40 curb ramps would be replaced.

Sign Panel Upgrades

The project would include 16 large sign replacements. These would consist of two posts and sign panels. The project would also include 14 small sign replacements, which would consist of one post and sign panel.

Drainage

Drainage inlets may be affected by the overlay and would need to be brought up to grade after the RHMA is poured.

Complete Streets Improvements

Proposed complete streets improvements would include replacing 0.10 lane mile of Class 2 bike lanes (from post mile 18.15 to post mile 18.25), adding guide striping, adding signage for pedestrians and cyclists, and enhancing the visibility of 40 crosswalks at 18 intersections. The project would also create two new bus stops (on the northbound and southbound sides) at the intersection of State Route 1 and Western Drive. Ten bike box delineations would also be added at six intersections, and five pedestrian islands would be enhanced at three intersections.

Bike box delineations would be at the following intersections:

a. Walnut Avenue (two bike boxes)

b. Laurel Street (two bike boxes)

c. King Street/Union Street (one bike box)

d. Fair Avenue (one bike box)

e. Swift Street (two bike boxes)

f. Chestnut Street/Missions Street (two bike boxes)

Pedestrian islands would be improved or created at the following intersections:

a. Berkshire Avenue (one pedestrian island)

b. King Street/Union Street (one pedestrian island)

c. Chestnut Street (three pedestrian islands)

Crosswalks would be upgraded to have high visibility at the following intersections:

a. Chestnut Street (six crosswalks)

b. Highland Avenue (one crosswalk)

c. Peyton Street (one crosswalk)

d. Walnut Avenue (four crosswalks)

e. Otis Street (one crosswalk)

f. Rigg Street (two crosswalks)

g. Laurel Street (three crosswalks)

h. Van Ness Avenue (two crosswalks)

i. Laurent Street (two crosswalks)

j. Trescony Street (one crosswalk)

k. Olive Street (one crosswalk)

l. Baldwin Street (one crosswalk)

m. Younglove Avenue (one crosswalk)

n. Miramar Drive (four crosswalks)

o. Swift Street (four crosswalks)

p. King Street/Union Street (one crosswalk)

q. Bay Street (one crosswalk)

r. Western Drive (four crosswalks)

Electrical Improvements

Traffic detector loops will be replaced if they are damaged during construction.

Construction Period

Construction is expected to last about 174 working days between contract approval in October 2026 and contract acceptance in October 2027.

Figure 1-1 Project Vicinity Map

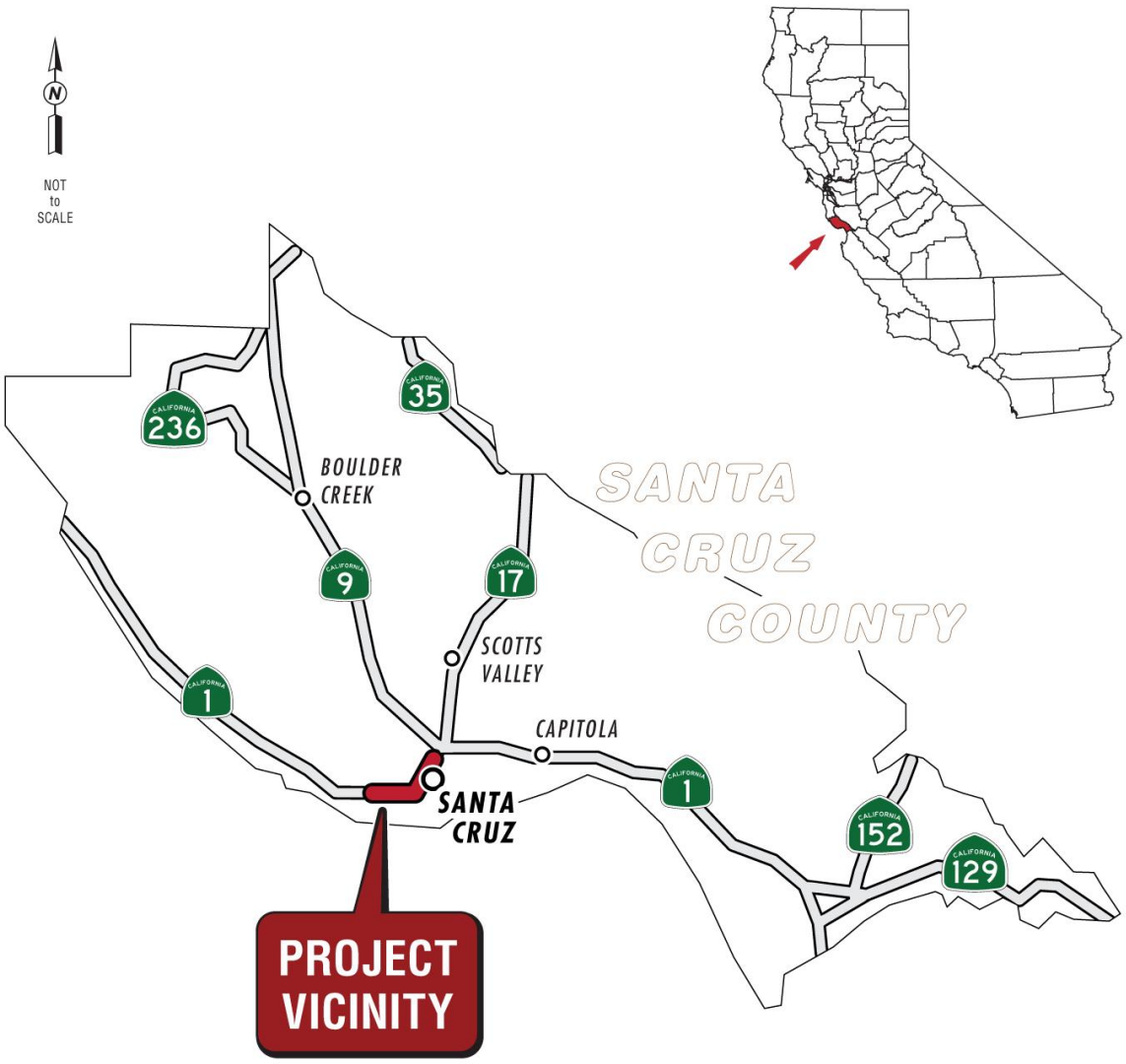
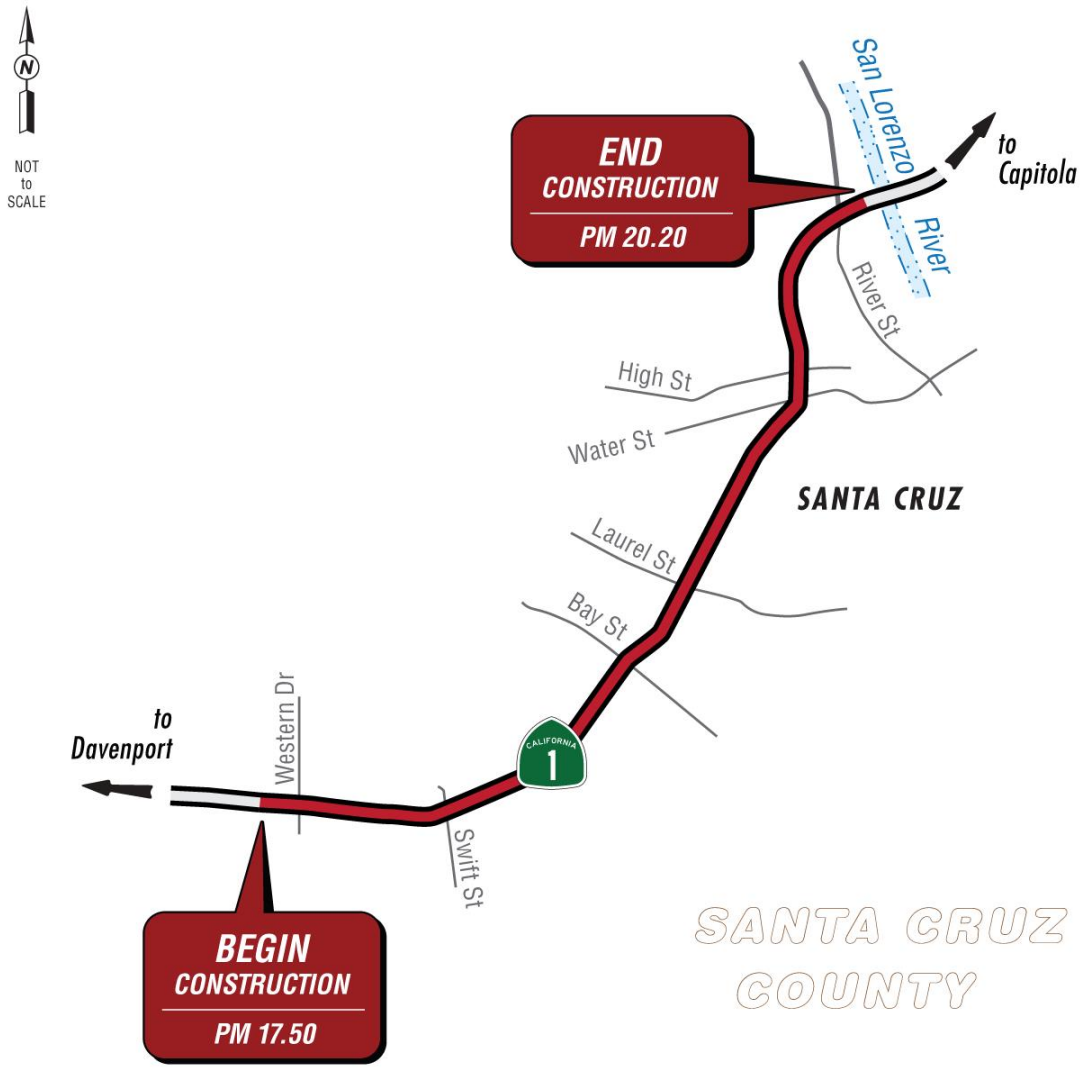


Figure 1-2 Project Location Map



1.4. Project Alternatives

Two alternatives are under consideration for the project: a Build Alternative and a No-Build Alternative.

An interdisciplinary team developed the alternatives that are under consideration. Several criteria were taken into consideration when evaluating the various alternatives for the project, including the project's purpose and need, cost, design, construction strategies, and environmental impacts.

1.4.1 Build Alternatives

Under the Build Alternative, the project would have temporary impacts from noise produced by construction equipment. The Build Alternative would address the purpose and need of the project by rehabilitating the pavement and shoulder, bringing curb ramps and guardrails to current standards, replacing sign panels, adding complete streets features, enhancing crosswalk visibility, and replacing any loop detectors that are damaged during project construction. See the Project Description section above for additional details.

This project contains a number of standardized project measures that are used 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 listed later in this chapter under "Standard Measures and Best Management Practices Included in All Build Alternatives."

1.4.2 No-Build (No-Action) Alternative

Under the No-Build Alternative, no work would occur on the project. Therefore, the project would not result in any temporary or permanent impacts on environmental resources. However, this alternative would not address the purpose and need of the project. With the No-Build Alternative, the roadway condition would continue to worsen, guardrails would not be upgraded to meet MASH standards for collision safety, curb ramps would not be improved to meet ADA standards, and sign panels would not be replaced. In addition, under the No-Build Alternative, complete streets features would not be added to enhance mobility for cyclists and pedestrians. Routine maintenance activities would continue.

1.5. Standard Measures and Best Management Practices Included in All Build Alternatives

This project would include a list of Caltrans standard measures that are typically used on all Caltrans projects. Caltrans standard measures are considered features of the project and are evaluated as part of the project. Caltrans standard measures are not implemented to address any specific

effects, impacts, or circumstances associated with the project but are instead implemented as part of the project's design to address common issues encountered on projects. The measures listed below are those related to environmental resources and are applicable to the project. These measures can be found in the Caltrans 2023 Standard Specifications document.

- 7-1 Legal Relations and Responsibility to the Public
- 10-4 Water Usage
- 10-5 Dust Control
- 10-6 Watering
- 12-1 Temporary Traffic Control
- 12-3 Temporary Traffic Control Devices
- 12-4 Maintaining Traffic
- 13-1 Water Pollution Control
- 13-2 Water Pollution Control Program
- 13-4 Job Site Management
- 13-6 Temporary Sediment Control
- 13-7 Temporary Tracking Control
- 13-10 Temporary Linear Sediment Barriers
- 14-1 General
- 14-2 Cultural Resources
- 14-6 Biological Resources
- 14-8 Noise and Vibration
- 14-9 Air Quality
- 14-10 Solid Waste Disposal and Recycling
- 14-11 Hazardous Waste and Contamination
- 14-12 Other Agency Regulatory Requirements
- 17-2 Clearing and Grubbing
- 18-1 Dust Palliatives
- 20-1 Landscape
- 20-3 Planting
- 20-4 Plant Establishment Work
- 21-2 Erosion Control Work

Additional measures would be added to the project as necessary or appropriate.

1.6. Discussion of the NEPA Categorical Exclusion

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

1.7. Permits and Approvals Needed

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

Agency	Permit/Approval	Status
City of Santa Cruz	Coastal Development Permit Exemption	Will be obtained before project construction.
U.S. Fish and Wildlife Service	Biological Opinion for California red-legged frog	To be obtained before the final environmental document.

Chapter 2. CEQA Evaluation

2.1. CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. Potential impact determinations include Significant and Unavoidable Impact, Less Than Significant Impact With Mitigation Incorporated, Less Than Significant Impact, and No Impact. In many cases, background studies performed in connection with a project will indicate that there are no impacts to a particular resource. A "No Impact" answer reflects this determination. The questions in this checklist 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 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 before any significance determinations documented below.

"No Impact" determinations in each section are based on the scope, description, and location of the proposed project as well as the appropriate technical report (bound separately in Volume 2), and no further discussion is included in this document.

2.1.1 Aesthetics

Considering the information in the Visual Impact Assessment dated July 31, 2023, the following significance determinations have been made:

Except as provided in Public Resources Code Section 21099:

Question—Would the project:	CEQA Significance Determinations for Aesthetics
a) Have a substantial adverse effect on a scenic vista?	**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?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Aesthetics
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	**Less Than Significant Impact**
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	**Less Than Significant Impact**

Affected Environment

Existing Visual Environment

The proposed project is on State Route 1 in the City of Santa Cruz. The City of Santa Cruz straddles the steep hills that mark the foot of the Santa Cruz Mountains, the alluvial plain formed by the San Lorenzo River, and the flat marine terraces of central Santa Cruz, north of the California Coastal Zone. The nearby greenbelt areas in the foothills, Monterey Bay, the San Lorenzo River, and the coastal beaches and bluffs define the urban edges of the city. The Santa Cruz Mountains, which are the backbone of the San Francisco Peninsula, are located to the northeast of the proposed project.

Existing Facility

From the southern project limits to the River Street intersection, State Route 1 (Cabrillo Highway) is a four-lane divided freeway. The freeway environment is somewhat typical, with urbanizing elements such as concrete median barriers, metal beam guardrails, concrete overhead bridge structures, and freeway-scale shrub and tree planting growing along the right-of-way. At River Street, State Route 1 becomes a four-lane conventional highway until it intersects with Chestnut Street, where it becomes an urban arterial with two to four lanes and is dually known as Mission Street.

The City of Santa Cruz has developed several planning documents, including the Mission Street Urban Design Plan 2022. This document divides Mission Street (State Route 1) into three distinct zones, discussed briefly below as they pertain to the proposed project setting.

The Mission Hill Zone spans from Chestnut to Laurel Street. In this portion of the project limits, the visual setting is largely characterized by mixed-use, commercial development. Many businesses are located in houses once used as single-family residences. Historic-style streetlights are located along

sidewalks and, in conjunction with the colorful older architecture, create a downtown feel. The City of Santa Cruz is both a college and coastal tourist destination, which is reflected in its architecture and aesthetics.

The Westside Zone encompasses the area between Laurel Street and Swift Street. Defined as a mid-corridor area, this segment supports predominantly retail and service uses. Aesthetically, it lacks the architectural consistency and character of the Mission Hill Zone and has evolved to be more automobile oriented. Gas stations and other standard commercial structures are predominant, with some residential uses scattered throughout the section.

The Natural Bridges Zone extends from Swift Street to Shaffer Road. This zone defines the western boundary of the City of Santa Cruz. Only a small portion of the project falls within this planning zone. It is defined by wide right-of-way and mature vegetation, giving the roadway a parkway character. State Route 1 serves as an entry to Wilder Ranch State Park.

State Route 1 is not a state-designated scenic route within the project limits, and there are no designated scenic vista points associated with the project. State Route 1, however, is eligible for designation as a State Scenic Highway within Santa Cruz County.

Planning Policies and Guidelines

Planning policies, documents, and guidelines are indicators of the general level of community sensitivity regarding the aesthetic character of the region and the project area. These documents also indicate the aesthetic importance of the area. Several policies contained within the Caltrans Director's Policy, the City of Santa Cruz 2030 General Plan, and the Santa Cruz Mission Street Urban Design Plan 2022 were used as guidelines for this project.

Environmental Consequences

Scenic Vistas

Scenic vistas in the project vicinity include open space and distant views of the Santa Cruz Mountains to the north and east. The proposed improvements would cause a minimal, if any, effect on views of scenic vistas in the area. The visibility of the distant hills would remain the same and would continue to contribute to the scenic vista.

Visual Character

The asphalt resurfacing portion of the project will not significantly change or degrade public views or visual quality. Alterations to the streetscape, including transit stops, widened pedestrian islands, high-visibility crosswalks, increased paving, and other elements, could influence the visual character of the City of Santa Cruz. Although the project may result in a more unified streetscape, depending on the specific design details and layouts, it may also result in a more engineered appearance to the pedestrian

environment. Community input will be gathered to ensure continuity with the adopted City of Santa Cruz 2030 General Plan and Mission Street Urban Design Plan. Design decisions, streetscape element selection, and aesthetic treatments can reduce the potential for an overbuilt or engineered appearance.

Light, Glare, and Daytime or Nighttime Views

The project does not propose new lighting. Existing signs would be upgraded to a more reflective sheeting, which may result in slightly more glare for night drivers; however, it would not impact day or nighttime views of the area or be inconsistent with the highway environment.

Summary of Visual Effects

Implementation of the project would result in visual changes, as seen from public viewpoints, such as State Route 1 roadways and sidewalks. Vehicular viewers would have low sensitivity to visual changes resulting from the proposed project due to the short periods of time they view the project site and their focus on driving. Viewers associated with nearby businesses would have moderately high sensitivity to visual changes resulting from the proposed project because they have semi-permanent views from their respective facilities. However, these viewers are likely not focused on views of the roadways. Recreationists, such as cyclists, walkers, runners, and joggers traveling along State Route 1, would also be moderately sensitive to visual changes. While they are likely to regard the outdoor environment as a holistic visual experience, they are often only transient viewers, seeing the proposed project for a short time as they pass through. Additionally, consideration and implementation of the city's planning documents, including the Mission Street Urban Design Plan 2022, would reduce visual discord and assist the city in improving the character and quality of the streetscape.

Although some of the visual changes would be noticeable, they would not be unexpected elements in the downtown environment. At several locations, widening pedestrian refuge islands, modifying curb cuts, adding bus stops, high-visibility crosswalks, and similar features are common along street thoroughfares.

Although most of the project elements would not be uncharacteristic for the setting, viewer sensitivity may be heightened because of the number of pedestrians in the area and the proximity to residences and retail businesses. Planning policies, documents, and guidelines also indicate a heightened viewer sensitivity. Because of this increased sensitivity, the following measures should be included in the project:

Avoidance and Minimization Measures

With the implementation of the following avoidance and minimization measures, the project would be consistent with the aesthetic and visual

resource protection goals along State Route 1 (Mission Street), and potential visual impacts would be reduced:

1. Preserve as much existing vegetation as possible. Prescriptive clearing and grubbing and grading techniques that save the most existing vegetation possible should be used.

2. Street tree removal is not currently planned as part of this project, but if it is added, then replacement planting must be considered. If street tree planting is added to the project scope, the locations shall be determined and approved by a District 5 Landscape Architect, considering safety, horticultural appropriateness, and maintainability.

3. Site furnishings, including but not limited to bus shelters, bike boxes, and bike facilities, shall be determined and approved by a District 5 Landscape Architect.

4. The aesthetic treatment of curb cuts, bulb-outs, high-visibility crosswalks, and pedestrian refuge islands shall be determined and approved by a District 5 Landscape Architect.

5. Community involvement will be requested in the development of the aesthetic treatments, to be further developed and approved by a District 5 Landscape Architect in conjunction with design.

6. Following construction, regrade and re-contour all new construction staging areas and other temporary uses as necessary to match the surrounding pre-project topography.

2.1.2 Agriculture and Forest Resources

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

The project would not require permanent acquisition of farmland and would not require temporary construction easements on farmland. The project is not

located in or near forest resources. Considering this information, the following significance determinations have been made:

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

2.1.3 Air Quality

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

Considering the information in the Air Technical Memorandum dated March 8, 2023, the following significance determinations have been made for air quality:

Question—Would the project:	CEQA Significance Determinations for Air Quality
a) Conflict with or obstruct implementation of the applicable air quality plan?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Air Quality
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?	**Less Than Significant 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?	**Less Than Significant Impact**

Affected Environment

The proposed project is in the North Central Coast Air Basin, which consists of Monterey, Santa Cruz, and San Benito counties. The Monterey Bay Air Resources District regulates air quality in the North Central Coast Air Basin. The North Central Coast Air Basin is considered in attainment for all federal ambient air quality standards and non-attainment for state ambient air quality standards for airborne particulate less than 10 microns in diameter (PM10).

The Federal Highway Administration first issued air quality conformity guidelines in 1993, which have been amended throughout the years. Since the project is in attainment with all federal ambient air quality standards, conformity requirements do not apply to this project.

Environmental Consequences

Construction

As with almost all construction projects, there would be a temporary increase in air emissions and fugitive dust during the construction period. Construction activities, such as grinding, excavation, material transport, and subsequent fill operations, can generate fugitive dust that may temporarily affect local air quality. However, because minor earthwork is expected to be required for this project, minimal dust generation would be expected.

To minimize dust emissions from the project, Standard Specifications Section 14-9.02, Air Pollution Control, would be implemented. Section 14-9.02 states that the contractor is responsible for complying with all local air pollution control rules, regulations, ordinances, and statutes that apply to work performed under the contract. Additionally, the project-level Stormwater Pollution Prevention Plan would include water pollution control measures that also serve as standard dust emission minimization measures (such as covering soil stockpiles, watering haul roads, watering excavation and grading

areas, and so on). By incorporating appropriate engineering design and stormwater Best Management Practices during construction, minimal short-term air quality impacts are expected.

Due to the use of standard construction dust and emission minimization practices and procedures, it is expected that project emissions of particulate matter (dust) and equipment emissions would be well within the daily thresholds of the Monterey Bay Air Resources District.

Operation

Since no additional lanes or capacity are being added to the highway, there would be no increase in long-term air emissions due to the proposed project.

2.1.4 Biological Resources

Considering the information in the Natural Environment Study Minimal Impact dated August 29, 2023, the following significance determinations have been made:

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

Question—Would the project:	CEQA Significance Determinations for Biological Resources
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	**Less Than Significant Impact**
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	**Less Than Significant Impact**
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	**No Impact**

Affected Environment

Environmental Setting

The proposed project is located along State Route 1, through the City of Santa Cruz. The project footprint begins at post mile 17.50, near River Street, and ends at post mile 20.20, near Western Drive. The project's Biological Study Area encompasses the Caltrans right-of-way along State Route 1 and private property to the west of the right-of-way.

The land within the Biological Study Area consists of the paved roadway (State Route 1), ruderal vegetation, and urban downtown development with ornamental plant species immediately next to the roadway. The western 0.5 mile consists of mostly ruderal habitat with some native vegetation, coastal redwood trees, and various pine tree species.

The Biological Study Area is located along the developed areas of the City of Santa Cruz, north of the California Pacific Ocean coastline. The elevation of the proposed work location is about 75 feet above sea level.

Proposed work areas are dominated by ruderal, invasive, redwood forest mix, and anthropogenic habitats. The proposed project includes limited natural plant communities in areas interspersed with disturbed soil and urbanized areas.

The regional climate is generally mild. The average maximum and minimum temperatures are 68.5 and 45.7 degrees Fahrenheit, respectively. Little or no precipitation commonly falls during the summer months, with most moisture deriving from heavy fog. Moderate precipitation, in the form of rainfall, occurs in the winter. The average annual rainfall in the City of Santa Cruz is about 30.66 inches.

Vegetation

Ruderal/Invasive

Ruderal or disturbed areas are dominated by non-native weedy and/or invasive species tolerant of disturbed conditions (e.g., compacted soils, roadsides subjected to vehicle disturbances, etc.). Representative species include red brome, slim oat, ripgut brome, and various other weedy species and annual grasses.

Several exotic, invasive plant species, as identified by the California Invasive Plant Council (Cal-IPC), were observed in the Biological Study Area. Fourteen of these species are rated “limited,” 12 are rated “moderate,” and four are rated “high." Ratings represent the level of each species’ negative ecological impact in California.

Upland Redwood Forest Mix

The Upland Redwood Forest is a plant community predominately occurring in the outer coast ranges from southwestern Oregon to Sonoma County, with the highest abundance in southern Marin County and from San Mateo County through Santa Cruz County. This community mainly consists of coast redwood.

The upland redwood forest found in the Biological Study Area is mixed and fringed, occurring only within the westernmost half mile of the Biological Study Area and sporadically on the eastern half mile of the Biological Study Area. Upland redwood forest commonly occurs within areas where summer fog occurs along the Pacific coast, between southwestern Oregon and San Luis Obispo County. This community is in greater abundance in southern Marin County and from southern San Mateo County through Santa Cruz. The community typically occupies well-drained soils with a shrubby understory. The upland redwood forest mix community within the Biological Study Area is considered mixed due to native trees occurring with other species, such as the pine species creating a windrow along the edges of State Route 1. Dominant plant species present within the project area include coast redwood and California blackberry.

Developed/Ornamental

The urbanized Downtown Santa Cruz segments occur between River Street (post mile 17.6) and Swift Street (post mile 19.7). This segment consists of residential and commercial buildings with ornamental vegetation planted in unpaved areas. This habitat is considered to be disturbed and has minimal potential to support habitat for sensitive species.

Ephemeral Drainage

An ephemeral drainage occurs about 875 feet west of Swift Street near post mile 19.85. This habitat makes up about 0.05 acre of the Biological Study

Area and has minimal potential to support habitat for sensitive species due to its ruderal nature.

Regional Species and Habitats of Concern

Table 2.1 below lists special-status plant and animal species with the potential to occur within the project limits and with habitat present within the Biological Study Area. The data was gathered from the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service.

In Table 2.1 below, "Habitat Present" means general habitat is present in the Biological Study Area, and the species may be present. "Critical Habitat Designated" means the Biological Study Area occurs within a federally designated critical habitat unit. "Present" means the species was detected as present in the Biological Study Area, or the species is inferred to be present in the Biological Study Area. "Habitat Present" means general habitat is present in the Biological Study Area, and the species may be present.

Table 2.1 Listed, Proposed Plant and Animal Species, and Critical Habitat Potentially Occurring or Known To Occur in the Project Area

Common Name/Scientific Name	Federal Status/California Native Plant Society Status	General Habitat Description	Habitat Present /Absent	Rationale
Plants	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Monterey pine	1B.1	The Monterey pine is a perennial evergreen tree. The Monterey pine occurs in closed-cone coniferous forests and cismontane woodlands. Three primary stands are native to California (at Ano Nuevo, Cambria, and Monterey Peninsula). The Monterey pine can be found on dry bluffs and slopes. Information regarding the flowering period is not available. The Monterey pine ranges from 82 to 607 feet.	Present	Trees present within the Biological Study Area are planted as windrows and will not be impacted by project activities because the project is outside the species' natural elevation range. Tree avoidance measures are recommended.
Amphibians	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Common Name/Scientific Name	Federal Status/California Native Plant Society Status	General Habitat Description	Habitat Present /Absent	Rationale
California red-legged frog	Federally Threatened/California Species of Special Concern	The California red-legged frog is endemic to California and northern Baja California**.** They are typically found in or near water; however, they can also be found in numerous other places, such as woods next to streams, in sturdy underwater supports like cattails, and in damp places far from water, including cool and moist bushes and thickets. Additionally, they can be present in surface water as deep as 2.3 feet to at least early June. Breeding habitat for the species is in permanent or ephemeral water sources, optimally in aquatic habitats with little or no flow.	Critical Habitat Designated	A small portion of the project is within critical habitat and within the dispersal range of California Natural Diversity Database occurrences. No breeding or nonbreeding habitat occurs in the Biological Study Area. The Federal Endangered Species Act effects determination is that the project may affect, but is not likely to adversely affect, the species or its critical habitat. Avoidance and minimization measures are recommended. Informal consultation for a Biological Opinion will be required.
Birds	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Common Name/Scientific Name	Federal Status/California Native Plant Society Status	General Habitat Description	Habitat Present /Absent	Rationale
Marbled murrelet	Federally Endangered/State Endangered	The marbled murrelet is predominantly found in the Pacific Northwest, with small populations and migratory stops in or offshore of the old-growth coniferous forests of Monterey County and the Central and Southern California coast. The marbled murrelet is the only California alcid species to nest inland. They typically nest in the upper branches of redwood or Douglas fir forests, as high as 150 feet. They build their nests with lichens and mosses and winter at sea.	Habitat Present (Marginal)	Marginal nesting habitat for the marbled murrelet occurs in the Biological Study Area. The species was not seen during surveys. General nesting avoidance and minimization measures are recommended. The Federal Endangered Species Act effects determination is that the project will have no effect on the species. The California Endangered Species Act determination is that the project will have no take of the species.
Other nesting birds	Protected by the Federal Migratory Bird Treaty Act/California Department of Fish and Game Section 3503.	Various habitats (nesting)	Habitat Present	Trees and shrubs in the Biological Study Area provide potential nesting habitat for various bird species. No nesting birds were seen in the Biological Study Area during surveys, but there is potential for future nesting. Avoidance and minimization measures are recommended.

The California red-legged frog is a federally threatened species and a state species of special concern. A small portion of the project is located within the California red-legged frog critical habitat and within the dispersal range of California Natural Diversity Database occurrences. No California red-legged frog breeding or nonbreeding habitat occurs in the Biological Study Area.

Additionally, no physical or biological features for California red-legged frogs exist within the Biological Study Area to provide suitable aquatic breeding or

aquatic nonbreeding habitat. Marginal habitat for dispersal exists within the Biological Study Area and consists of the paved roadway, ruderal and mixed pine forest habitat with patches of bare ground, and one ephemeral drainage. The nearest record of a California red-legged frog is about 1,700 feet southwest of the project area within one artificial pool, about 200 feet west of Shaffer Road. The pool encompasses about 0.05 acre, with one willow providing cover, and is surrounded by emergent vegetation. The artificial pool is connected to seasonal wetlands. Three juveniles were seen in 1997, and one adult and one juvenile were seen in 2008. The pool has documented non-native predatory species present, such as bullfrogs, and is not considered a breeding site. The nearest aquatic feature is an unnamed ephemeral drainage located within the Biological Study Area near post mile 19.85, with no records of California red-legged frog observations.

Federal Executive Order 13112, Introduction of Noxious Weeds

Executive Order 13112 directs federal agencies to combat the introduction or spread of invasive plant species in the U.S. In response to this Executive Order, the Federal Highway Administration is requiring an analysis of the risk for any federally funded action to cause or promote the introduction or spread of invasive plant species. The California Invasive Plant Council maintains a list that categorizes the severity of the invasive species. Plants with a rating of “high” are considered the most invasive wildland pest plants. Plants rated “moderate” and “limited” are less invasive, spread less rapidly, and cause less disruption.

Environmental Consequences

Jurisdictional Waters and Wetlands

Project activities would avoid the ephemeral drainage that occurs within the Biological Study Area. The proposed project will have no impacts on wetlands, waters of the U.S., or jurisdictional waters of the State of California; therefore, the project is in compliance with Federal Executive Order 11990, Sections 401 and 404 of the Clean Water Act, and Section 1602 of the State of California Fish and Game Code.

The Federal Migratory Bird Treaty Act

The Federal Migratory Bird Treaty Act protects native North American migratory birds, nests, and eggs. The California Fish and Game Code Sections 3503, 3513, and 3800 also protect migratory birds. Tree removal and trimming are not expected for this project. Ruderal vegetation will be disturbed to accommodate the two bus stop locations. To protect any nesting activity that may be occurring in nearby areas, the avoidance and minimization measures listed below will be implemented.

Habitats and Natural Communities of Special Concern

Federally designated critical habitat for California red-legged frogs exists within the project footprint. The nearest aquatic feature, Moore Creek, is

approximately 750 feet west of the project area. No physical or biological features for California red-legged frogs exist within the Biological Study Area to provide suitable aquatic breeding or aquatic nonbreeding habitat, but they may still provide poor to marginal dispersal habitat. This project is not anticipated to significantly impact California red-legged frogs or their critical habitat. Work at the western end of the project would involve repaving and replacing existing shoulder backing. Avoidance and minimization measures are listed below.

Special-Status Plant Species

Large portions of the project area contain ruderal or disturbed habitat that is mostly unsuitable for the special-status plant species identified in the literature search. No state or federally listed plant species were identified as having the potential to occur in the project area, and none were found during surveys.

Special-Status Animal Species

The Biological Study Area is within designated critical habitat for the California red-legged frog.

The habitat within the Biological Study Area is unlikely to support individuals, and project activities in this area, such as repaving and replacing existing shoulder backing, are unlikely to affect the species. Protocol surveys were not conducted. No individuals were seen during reconnaissance surveys. However, given the close proximity of the Biological Study Area to occurrences, this project may affect but is not likely to adversely affect the California red-legged frog or its critical habitat.

Post mile 19.68 to post mile 20.20 contain dispersal habitat from Moore Creek. The proposed project is anticipated to qualify for the Federal Endangered Species Act incidental take coverage under the U.S. Fish and Wildlife Service Programmatic Biological Opinion (81440-2010-F-0382). Informal consultation would be completed for the use of the Programmatic Biological Opinion. Applicable measures from the Programmatic Biological Opinion that would be implemented from post mile 19.68 to post mile 20.20 have been included in the list of avoidance and minimization measures below.

Avoidance and Minimization Measures

1. To ensure the ephemeral drainage will not be impacted during construction, an Environmentally Sensitive Area will be established. The Environmentally Sensitive Area will be delineated on project plans to prevent any personnel, equipment, or vehicles from entering the Environmentally Sensitive Area.

2. Within seven days before the initiation of site disturbance and/or construction, a qualified biologist should conduct a pre-activity (i.e., preconstruction) survey for nesting birds.

3. Active bird nests will not be disturbed, and eggs or young birds covered by the Migratory Bird Treaty Act and California Fish and Game Code will not be killed, destroyed, injured, or harassed at any time (harassment includes noise from construction activities). If an active bird nest is found in or near a location that will be disturbed, Caltrans will determine an appropriate buffer based on the habits and needs of the species. An Environmentally Sensitive Area will be established, and the nest area will be avoided until the nest is vacated and the juveniles have fledged.

4. To ensure trees will not be impacted during construction, an Environmentally Sensitive Area will be established. The Environmentally Sensitive Area will be delineated on project plans to prevent any personnel, equipment, or vehicles from entering the Environmentally Sensitive Area.

The following measures will be implemented from post mile 19.68 to post mile 20.20:

5. A biologist with experience in identifying all life stages of the California red-legged frog and its critical habitat (75 Federal Register 12816) will survey the project site no more than 48 hours before the start of work activities. If any life stage of the California red-legged frog is detected, the U.S. Fish and Wildlife Service will be notified before the start of construction. If Caltrans and the U.S. Fish and Wildlife Service determine that adverse effects on the California red-legged frog or its critical habitat cannot be avoided, the project will not start until Caltrans completes the appropriate level of consultation with the U.S. Fish and Wildlife Service.

6. Work activities will take place during the dry season, between April 1 and November 1, when water levels are typically at their lowest and California red-legged frogs are likely to be more detectable. Should activities need to be conducted outside of this period, Caltrans may conduct or authorize such activities after obtaining written approval from the U.S. Fish and Wildlife Service.

7. Before work begins on any proposed project, a biologist with experience in the ecology of the California red-legged frog, as well as the identification of all its life stages, will conduct a training session for all construction personnel, which will include a description of the California red-legged frog, its critical habitat, and specific measures that are being implemented to avoid adverse effects on the subspecies during the project.

8. If any life stage of the California red-legged frog is detected in the project area during construction, work will stop immediately, and the resident

engineer, authorized biologist, or biological monitor will notify the Ventura Fish and Wildlife Office via telephone or electronic mail. If Caltrans and the U.S. Fish and Wildlife Service determine that adverse effects on California red-legged frogs cannot be avoided, construction activities will remain suspended until Caltrans and the U.S. Fish and Wildlife Service complete the appropriate level of consultation.

9. During project activities, all trash that may attract predators will be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas.

10. Before the start of work, Caltrans will ensure that a plan is in place for prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and the appropriate measures to implement should a spill occur.

11. All refueling, maintenance, and staging of equipment and vehicles will occur at least 60 feet from aquatic or riparian habitat and not in a location from which a spill would drain directly toward aquatic habitat. The monitor will ensure contamination of aquatic or riparian habitat does not occur during such operations by implementing the spill response plan described in measure 10.

12. Plants used in re-vegetation will consist of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials will be used to the extent practicable. Invasive, exotic plants will be controlled to the maximum extent practicable. This measure will be implemented in all areas disturbed by project activities unless Caltrans and the U.S. Fish and Wildlife Service determine that it is not feasible or practical.

13. Habitat contours will be returned to their original configuration at the end of project activities in all areas that have been temporarily disturbed by project activities unless Caltrans and the U.S. Fish and Wildlife Service determine that it is not feasible or modification of original contours would benefit the California red-legged frog.

14. The number of access routes, the size of staging areas, and the total area of the activity will be limited to the minimum necessary to achieve the project goals. Environmentally Sensitive Areas will be delineated to confine access routes and construction areas to the minimum area necessary to complete construction and minimize the impact on habitat for the California red-legged frog; this goal includes locating access routes and construction areas outside of aquatic habitat and riparian areas to the maximum extent practicable.

15. To control sedimentation during and after project implementation, Caltrans will implement Best Management Practices outlined in any

authorizations or permits issued under the authority of the Clean Water Act that it receives for the specific project. If Best Management Practices are ineffective, Caltrans will attempt to remedy the situation immediately, in coordination with the U.S. Fish and Wildlife Service.

16. If a work site is to be temporarily dewatered by pumping, the intake will be screened with wire mesh not larger than 0.2 inch to prevent any California red-legged frogs, which were not initially detected, from entering the pump system. If California red-legged frogs are detected during dewatering and adverse effects on California red-legged frogs cannot be avoided, construction activities will remain suspended until Caltrans and the U.S. Fish and Wildlife Service complete the appropriate level of consultation.

17. Upon completion of construction activities, any diversions or barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the creek bed will be minimized to the maximum extent possible; any imported material will be removed from the streambed upon project completion.

18. Unless approved by the U.S. Fish and Wildlife Service, water will not be impounded in a manner that may attract California red-legged frogs.

19. A qualified biologist will permanently remove any individuals of exotic species, such as bullfrogs, crayfish, and centrarchid fishes, from the project area, to the maximum extent possible. The biologist will be responsible for ensuring his or her activities comply with the California Fish and Game Code.

20. To ensure that diseases are not conveyed between work sites by the U.S. Fish and Wildlife Service-approved biologist, the enclosed fieldwork code of practice developed by the Declining Amphibian Populations Task Force will be followed at all times.

21. During construction, Caltrans will ensure that the spread or introduction of invasive exotic plant species will be avoided to the maximum extent possible.

22. When practicable, invasive exotic plants in the project site shall be removed and properly disposed of. All invasive vegetation removed from the construction site shall be taken to a landfill to prevent the spread of invasive species. If the soil from weedy areas must be removed off-site, the top 6 inches of soil containing the seed layer in areas with weedy species shall be disposed of at a landfill.

23. If necessary, wash stations onsite shall be established for construction equipment under the guidance of Caltrans to avoid and/or minimize the spread of invasive plants and/or seeds within the construction area.

2.1.5 Cultural Resources

Considering the information in the Historical Resources Evaluation Report, dated June 2023, the Archaeological Survey Report, dated August 2023, and the Historic Properties Survey Report, dated August 2023, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Cultural Resources
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	**Less Than Significant Impact**
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	**Less Than Significant Impact**
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	**Less Than Significant Impact**

Affected Environment

Area of Potential Effects

The Area of Potential Effects was established as the entire area where project activities may directly or indirectly affect cultural resources. The project area extends through a developed area of downtown Santa Cruz, where State Route 1 is known locally as Mission Street. Due to the proximity of multiple historic-period built-environment resources in this residential and commercial area, several nearby parcels were included in the Architectural Area of Potential Effects in locations where sidewalk work would be occurring near historic-period resources and/or where small slivers of right-of-way acquisitions or temporary construction easements may be required. The Archaeological Area of Potential Effects includes all areas of ground disturbance, project activities, and staging areas and is coterminous with (occupying the same space as) the Area of Direct Impact.

Project Study Area Historic Resources

Parcels included in the Architectural Study Area (Study Area) are those in which there is a potential for direct or indirect effects on a property because property acquisition is proposed or work may affect nearby parcels. The 15 historic-era built environment properties in the Study Area include six single-family residences built between 1889 and 1948, two multifamily residence buildings built in 1906 and 1939, and seven commercial buildings built between 1925 and 1972. All 15 parcels were evaluated, and six of them were determined to be historical resources under CEQA.

There are six historical resources in the project area, including four properties eligible for inclusion in the National Register of Historic Places and California

Register of Historical Resources: 315 Mission Street, 1020 Mission Street, 1604 Mission Street, and 104 King Street. One property, 331 Mission Street, is not considered eligible for inclusion under either registry. The Santa Cruz and Felton Railroad is assumed to be eligible for inclusion in the National Register of Historic Places and the California Register of Historical Resources for the purposes of the project. These findings are explained in more detail below.

A total of 15 properties in the Study Area were evaluated in the Historic Properties Survey Report. The study concluded that four of the 15 properties are eligible for listing in the National Register of Historic Places or the California Register of Historical Resources. The residence at 315 Mission Street was listed in the National Register of Historic Places in 1976 as a contributor to the Mission Hill Area Historic District under Criterion C for its architectural merit. The Historic Properties Survey Report concluded that the property is also individually eligible for listing in the National Register of Historic Places/California Register of Historical Resources at the local level under Criteria A and C for its importance in the early development of Santa Cruz and its architectural merit. It retains integrity for its period of significance, 1904, the year it was built.

The Study Area also includes two resources that were previously determined eligible for listing in the National Register of Historic Places: 104 King Street and 1020 Mission Street. The present State Historic Preservation Office concurred with this finding. The present study confirms these properties' eligibility status. The property at 104 King Street was previously determined eligible for listing in the National Register of Historic Places under Criterion C at the local level of significance as "a very fine example of a combination of the Stick and Queen Anne styles" with "a remarkable degree of integrity" in 1989. This study confirms that it remains eligible for listing in the National Register of Historic Places and is also eligible for listing in the California Register of Historical Resources under Criteria C and 3 for its architectural merit. It retains integrity for its period of significance, 1889, the year it was built.

The property at 1020 Mission Street was previously determined eligible for listing in the National Register of Historic Places under Criterion C at the local level of significance as "a fine example of its type and period" and received State Historic Preservation Office concurrence in 1989. This study confirms that it remains eligible for listing in the National Register of Historic Places and is also eligible for listing in the California Register of Historical Resources under Criteria C and 3 for its architectural merit. It retains integrity for its period of significance, 1907, the year it was built. The contributing elements include the residence, garage, and stone retaining wall.

The property at 1604 Mission Street was previously determined not to be eligible for listing in the National Register of Historic Places, a finding that

received State Historic Preservation Office concurrence in 1989. This Historic Properties Survey Report revisited the previous evaluation and, with additional information and analysis, has concluded that the property, a former grocery store, is locally significant under Criteria A/1 for its association with Chinese American entrepreneurship and with Lam Sing, an individual of historical importance in brokering relationships between Chinese immigrants and the larger Santa Cruz community. It retains integrity for its period of significance, 1950 to 1979, the time frame in which Lam Sing was associated with the property.

Additionally, the Santa Cruz and Felton Railroad, which intersects the Study Area at approximately milepost 17.65, is assumed to be eligible for the purposes of this undertaking only due to its large resource size and limited potential for effects, pursuant to Stipulation VIII.C.4 of the Section 106 Programmatic Agreement. This assumption of eligibility was approved by the Caltrans Cultural Studies Office on May 2, 2023.

None of the remaining evaluated properties meet the National Register of Historic Places/California Register of Historical Resources criteria for eligibility. The site at 331 Mission Street is listed in a local register. Therefore, it is considered a historical resource for the purposes of CEQA despite not being eligible for inclusion in the National Register of Historic Places/California Register of Historical Resources. Other than the parcel at 315 Mission Street, there are no other properties in the Study Area located within a known historic district, nor are any other potential historic districts located within the Study Area.

Environmental Consequences

Archaeology

An archaeology search of Caltrans records, which includes California Historical Resources Information System data from the Northwest Information Center from as recent as February 2023, related to the project area, was conducted in July 2023. The project area has been studied numerous times over the last 50 years by Caltrans and other professional Cultural Resource Management groups. In October 2022, a pedestrian and windshield survey of the Area of Potential Impact was completed. The disturbance areas that extend outside the Caltrans right-of-way were visited and confirmed to be paved with no soil visibility. No prehistoric or historic-period archaeological resources have been recorded within or next to the project limits. The potential for currently unidentified intact archaeological deposits to be uncovered is considered low because the project area extends through one of the denser urban areas of Santa Cruz that has witnessed multiple episodes of development and redevelopment over the last century. Additionally, the project area is located within and just outside the existing highway corridor, which has been previously disturbed by multiple episodes of highway construction and residential development. The two closest known

archaeological sites are located well outside the current project footprint and will not be impacted by project-related activities.

If previously unidentified cultural materials are unearthed during construction, it is Caltrans' policy that work be stopped in that area until a qualified archaeologist can assess the significance of the find. Additional archaeological surveys will be needed if project limits are extended beyond the present survey limits. A less than significant impact would result.

Architectural History

The project is not anticipated to have a significant impact on any of the historic properties within the project limits. The potential for project impacts, including the potential for impacts from vibration produced during construction, will be further evaluated in the Finding of Effect in consultation with the State Historic Preservation Office. The Finding of Effect will be completed before the Final Environmental Document is completed. A Finding of No Adverse Effect with Standard Conditions- Environmentally Sensitive Areas is the proposed finding, and the final finding will be included in the Final Environmental Document. With this finding, an Environmentally Sensitive Area Action Plan would delineate Environmentally Sensitive Areas to be marked to ensure protection of historical resources during construction. A less than significant impact is anticipated.

Avoidance and Minimization Measures

For the anticipated Finding of No Adverse Effect with Standard Conditions, the following measure would be implemented:

1. To ensure protection of historical resources within the project area, Environmentally Sensitive Areas will be identified on plan sets and marked in the field using fencing or flagging.

2.1.6 Energy

Project construction would require the use of energy resources. Project construction is necessary to restore assets in poor condition and meet current standards. During operation, the project would require minimal use of electricity. Though energy would be required to construct the project, the use of energy would not be wasteful, inefficient, or unnecessary. Therefore, the following significance determinations have been made:

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

2.1.7 Geology and Soils

A paleontological identification report was completed on December 30, 2022, and a Geologic Hazards Report was completed on August 13, 2023. Considering the geologic and soil traits in the project area, the following significance determinations have been made:

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

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

Affected Environment

The California Geological Survey records indicate all faults within the project limits are neither within an Alquist Priolo Earthquake Fault Zone nor within 1,000 feet of any mapped fault that is from the Holocene period (up to 11,000 years old) or younger. The U.S. Geological Survey's online Interactive Fault Map places the inferred trace of the Ben Lomond fault crossing the project limits between post miles 18.9 and 19.0. The map categorizes the onshore fault as "Late Quaternary" (less than 130,000 years). Therefore, due to the age of the fault, the project would not be considered susceptible to surface fault rupture hazards per Caltrans standards.

The entire project limits on State Route 1 are between the San Andreas and San Gregorio fault zones. The San Andreas fault system is active, and the San Gregorio fault system is potentially active. This is according to archived documentation on the California Geologic Survey's Alquist-Priolo Site Investigation Reports online database and the U.S. Geologic Survey's online Quaternary Fault and Fold Database of the U.S. The risk of strong seismic ground shaking on State Route 1 would be due to any major events occurring on the San Andreas fault zone, about 10 miles northwest of the project limits.

The Hazards and Geophysical map application from Santa Cruz County's Geographic Information System Department webpage identified areas of "Very High" and "High" potential for liquefaction from post miles 17.50 to 17.90. The remaining project limits (post miles 17.93 to 20.20) are mapped as having "Low" potential. The "Very High" and "High" areas correspond to commonly liquifiable sediments that concur with published geologic mapping.

The U.S. Department of Agriculture's Web Soil Survey data indicates that 88 percent of the soils mapped within the project limits are rated for moderate soil erosion (K Factors (soil erodibility factors)) of 0.28 to 0.43). Twelve percent of the soils (the western 0.3 mile of the project) have a low soil erosion rating (K Factor of 0.1).

Upon review of geologic maps available on the California Geological Survey's database and Santa Cruz County's Hazard and Geophysical map application,

the project limits between post miles 17.50 and 17.90 have a potential “Very High” to “High” liquefaction rating. A higher potential for lateral spreading, subsidence, and collapse corresponds to the same area.

Environmental Consequences

This Capital Preventative Maintenance project is primarily a roadway resurfacing project, which would also rehabilitate or add signs, complete streets elements, and bring drainage inlets back up to grade. The project is in an area that could experience soil instability or the effects of earthquakes. However, the project itself would not increase the risks associated with these geologic and soil conditions.

This Capital Preventative Maintenance project would not result in the rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, or landslides. Due to the minor nature of the project, it is not anticipated to increase the risk of these occurrences, and the project would not increase the safety risk during any of these events. The project would have a less than significant impact in these areas.

The project would include Best Management Practices for reducing erosion during construction. During operation, the culverts brought up to grade by the project would help to effectively convey water during storm events and reduce erosion. A less than significant impact would occur.

The project would not increase risks related to the liquefaction of soil. Though the project may, in part, occur on soils that are prone to liquefaction, it would not increase the likelihood of a liquefaction event or increase safety risks in the event of liquefaction. The primary feature of the project is re-paving, which would occur in the existing roadway prism. Other project features are minor in nature and wouldn’t affect liquefaction potential.

The project limits on State Route 1 are predominantly supported by artificial fill per Caltrans Standard Specifications. Unified Soil Classification data from the U.S. Department of Agriculture’s soil survey database also shows the project limits are on soils with no or relatively low expansive clay content. Risk to life or property is not anticipated. A less than significant impact would occur as a result of soil expansion.

The project would not directly or indirectly cause potential substantial adverse effects due to geologic or soil conditions. A less than significant impact would occur. No avoidance, minimization, and/or mitigation measures are necessary.

2.1.8 Greenhouse Gas Emissions

Considering the information in the Greenhouse Gas Technical Memorandum dated March 8, 2023, and the Climate Change Technical Report dated August 1, 2023, the following significance determinations have been made:

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

Affected Environment

The U.S. Environmental Protection Agency is responsible for documenting greenhouse gas emissions nationwide, and the California Air Resources Board does so for the state.

The Association of Monterey Bay Area Governments is the metropolitan planning organization for the region. The Association of Monterey Bay Area Governments is responsible for developing the 2040 Metropolitan Transportation Plan/Sustainable Communities Strategy, which aims to maintain and improve the transportation system to meet the diverse needs of the region through 2040. The Santa Cruz County Regional Transportation Commission proactively addresses transportation needs in Santa Cruz by obtaining and distributing funding and publishing the Regional Transportation Plan.

Environmental Consequences

The purpose of the project is to improve existing assets in poor condition. The project will not increase the vehicle capacity of the roadway. This type of project is not expected to alter operational greenhouse gas emissions. Because the project would not increase the number of travel lanes on State Route 1, no increase in vehicle miles traveled would occur as a result of project implementation. Some greenhouse gas emissions would be generated during the construction period.

Construction greenhouse gas 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.

In general, the use of long-life pavement, improved traffic management plans, and changes in materials can also help offset emissions produced during construction by allowing longer intervals between maintenance and rehabilitation activities. The primary scope of the project is to rehabilitate and extend the service life of the pavement on the roadway. The scope of the project also includes improvements to existing curb ramps and signs, as well as complete streets and electrical improvements.

Construction Climate Change emissions were estimated using the Caltrans Construction Emissions Tool (CAL-CET), using default settings for a Traffic Safety and Operation project. The construction phase is approximately 174 working days, and the estimated average carbon dioxide emissions are 260 tons per year. Note that these estimates are based on assumptions made during the environmental planning phase of the project and are considered "ballpark" figures of energy usage.

All construction contracts include Caltrans Standard Specifications, which are meant to minimize the project's greenhouse gas emissions. The following would be included in the construction contract and implemented during construction: Sections 7-1.02A and 7-1.02C-Emissions Reduction, Section 14-9.02-Air Pollution Control, Section 14-10-Solid Waste Disposal and Recycling, Standard Specifications Section 12-Temporary Traffic Control, and Standard Specifications Section 21-2.02K-Compost. Caltrans is firmly committed to implementing measures to help reduce greenhouse gas emissions.

One visual avoidance and minimization measure to be implemented as part of this project requires the preservation of as much existing vegetation as possible. A biology measure requires revegetation of all areas disturbed by the project. The revegetation requirements will be detailed in a landscape plan. It is expected that vegetation preservation and revegetation efforts to restore vegetation removed during the construction process would help offset construction-related greenhouse gas emissions. See the avoidance and minimization measures listed under the Aesthetics and Biological Resources sections for the full measure language. In addition, a traffic control plan and construction staging plan will be developed to guide traffic and maximize traffic efficiency while considering safety and construction needs. Caltrans Standard Specifications Section 12-Temporary Traffic Control will guide the implementation of the traffic control plan.

Furthermore, to minimize the project's greenhouse gas emissions during construction, the avoidance and minimization measures listed below will be implemented.

While the project will result in greenhouse gas emissions during construction, it is anticipated that the project will not result in any increase in operational greenhouse gas emissions. The project would not conflict with any applicable

plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. With the implementation of construction greenhouse gas reduction measures, the project's greenhouse gas emissions would not be notable, and a less than significant impact would occur.

Avoidance and Minimization Measures

The following measures will be implemented to minimize the project's greenhouse gas emissions during construction:

1. Where feasible, schedule truck trips outside of peak morning and evening commute hours. Traffic operations shall specify this in the lane closure charts.

2. Where feasible, use alternative fuels, such as renewable diesel, for construction equipment. If the use of alternative fuels is not possible, substitute gasoline-powered equipment for diesel-powered equipment. Comply with Section 3-517-Equipment of the 2023 Caltrans Construction Manual.

3. Where feasible, use solar-powered construction equipment.

4. Supplement existing construction environmental training with information on methods to reduce greenhouse gas emissions related to construction. This information will be shared using a handout. The information in the handout should include, but would not be limited to, the following:

a. For improved fuel efficiency from construction equipment, maintain equipment in proper tune and working condition, use the right-sized equipment for the job, and use equipment with new technologies.

b. Limit idling to five minutes for delivery and dump trucks and other diesel-powered equipment.

c. Reduce construction waste. For example, reuse or recycle construction and demolition waste. Maximize the use of recycled materials during project construction to the extent feasible. See Caltrans Standard Specifications Section 14-10-Solid Waste Disposal and Recycling.

d. Use on-road heavy-duty trucks that meet the CARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines and comply with the State On-Road Regulation. See Caltrans Standard Specifications Section 7-1.02C-Emissions Reduction and comply with the 2023 Caltrans Construction Manual Section 7-1.04A(1)-Air Quality.

5. If any signs to be replaced are currently illuminated by lighting, use new sign panels made with ultra-reflective sign materials that are illuminated by headlights to reduce the energy used by electric lighting where feasible.

2.1.9 Hazards and Hazardous Materials

Considering the information in the Initial Site Assessment that was prepared for hazardous waste, dated March 23, 2021, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	**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 0.25 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?	**No Impact**
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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?	**Less Than Significant Impact**

Affected Environment

The project is on State Route 1 through downtown Santa Cruz. State Route 1 serves as a major arterial, evacuation route, and route used by emergency responders. Numerous schools are in the vicinity of the project site.

The project is in an Unzoned Local Responsibility Area, according to the California Department of Forestry and Fire Protection's (CalFire's) Fire Hazard Severity Zone mapping tool. However, portions of the project limits fall within the city's designated Wildland Urban Interface Fire Area.

To provide information for the hazardous waste study, known as the Initial Site Assessment, the project description and hazardous waste databases were reviewed. There are hazardous waste sites and businesses commonly associated with hazardous waste generation in the project vicinity, but none would have the potential to impact this type of project. Following is a discussion regarding typical hazardous materials and wastes that are routinely encountered during highway construction projects.

Aerially Deposited Lead

Aerially deposited lead-contaminated soil along roadways is managed under the 2016 Aerially Deposited Lead Agreement between Caltrans and the California Department of Toxic Substances Control. Significant concentrations of aerially deposited lead are not anticipated within the project limits. An aerially deposited lead report performed within the project limits (titled "Site Investigation Report SR-1/SR-9 Intersection Improvement Project, Santa Cruz, California, dated August 2017") indicated that lead concentrations in exposed soil along the traveled way were below 80 milligrams per kilogram (mg/kg) below regulatory limits. There will be no special handling requirements for excavated and/or disturbed soil regarding aerially deposited lead.

Treated Wood Waste

Treated wood waste is commonly found in guardrails and signposts along Caltrans' right-of-way. There is potential to encounter treated wood waste when guardrails or signposts are replaced.

Yellow Thermoplastic or Traffic Stripe

Yellow thermoplastic and traffic stripes containing elevated concentrations of lead were commonly used on highways between 1997 and 2006. Caltrans records indicate that older, hazardous yellow thermoplastic and traffic stripe have already been removed within the project limits and replaced with materials containing lower, nonhazardous lead concentrations.

Environmental Consequences

The completed project would improve highway reliability and would not interfere with emergency response or emergency evacuation plans. During

project construction, any traffic controls necessary would be implemented in accordance with the traffic control plan to not significantly impede fire or other emergency evacuation or emergency response traffic. Emergency responders would be made aware of any traffic disruptions, delays, or detours in advance.

The project would not increase the risk of loss, injury, or death due to wildland fires. The completed project would improve highway reliability. During project construction, any traffic controls necessary would be implemented to not significantly impede fire evacuation or response traffic. Emergency responders will be made aware of any traffic disruptions, delays, or detours in advance.

Though there are schools within 0.25 mile of the project limits, all hazardous waste would be handled according to appropriate standard specifications. The release of hazardous materials is not anticipated.

With the implementation of Caltrans Standard Special Provisions for the proper handling, management, and disposal of hazardous wastes and materials routinely generated by highway construction projects, a significant impact due to hazardous waste would not occur.

Avoidance and Minimization Measures

1. As a health and safety precaution, Standard Special Provisions Section 7-1.02k(6)(j)(iii) would be implemented during construction to ensure proper handling, management, and disposal (if required) of nonhazardous, unregulated aerially deposited lead-contaminated soil. This provision requires a Lead Compliance Plan to be prepared and implemented by the contractor.

2. If treated wood waste will be replaced as part of any guardrail reconstruction or signpost replacements, then Caltrans Standard Special Provisions Section 14-11.14 for the management and disposal of the treated wood waste will be implemented.

3. If stripe or thermoplastic must be removed as part of the project, appropriate Standard Special Provisions for management and disposal will be selected and implemented based on the removal method. In addition, the Standard Special Provision will require a Lead Compliance Plan to be developed and implemented by the construction contractor.

2.1.10 Hydrology and Water Quality

Considering the information in the Water Quality Technical Memorandum dated March 8, 2023, and the Location Hydraulic Study dated May 19, 2023, the following significance determinations have been made:

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

Affected Environment

The San Lorenzo River and Moore Creek cross State Route 1 at post mile 17.4 and 20.3, respectively. The project lies outside the extent of the base (100-year) floodplain except at post mile 17.50, where the project encroaches on a floodplain. The encroachment is minor and not significant under 23 Code

of Federal Regulations 650, Subpart A, and will not raise base flood elevations.

The receiving water bodies in the vicinity of the project limits are the San Lorenzo River and Moore Creek. The project is within the Santa Cruz Hydrologic Area (subarea 304.12) in the Big Basin Unit.

A review of the project's location with respect to nearby receiving waters indicates that the San Lorenzo River and Moore Creek include impairments listed on the 2014/2016 Clean Water Act Section 303(d) list. As per the 303(d) list, water bodies are impaired for benthic community effects, Chlordane, Chloride, Enterococcus, Polychlorinated biphenyls, Sodium, pH, Temperature, Toxicity, Turbidity, Escherichia Coli, Oxygen (dissolved), and Specific Conductivity.

The San Lorenzo River and Moore Creek have several beneficial uses listed in Table 2.2 below.

Table 2.2 San Lorenzo River and Moore Creek Beneficial Water Uses

Abbreviation	Beneficial Use
AGR	Agricultural Supply
BIOL	Biological Habitats of Special Significance
IND	Industrial Service Supply
COMM	Commercial and Sport Fishing
GWR	Groundwater Recharge
MUN	Municipal and Domestic Supply
RARE	Rare, Threatened, or Endangered Species
REC	Water Contact Recreation
REC	Non-Contact Water Recreation
WARM	Warm Freshwater Habitat
WILD	Wildlife Habitat
COLD	Cold Freshwater Habitat
MIGR	Migration of Aquatic Organisms
SPWN	Spawning, Reproduction, and/or Early Development
EST	Estuarine Habitat
FRSH	Freshwater Replenishment
PROC	Industrial Process Supply

There aren't any drinking water reservoirs or recharge facilities within the project limits. In addition, there aren't any existing treatment Best Management Practices within the project limits or groundwater units within the project vicinity. Furthermore, the project would disturb approximately 5.8 acres of soil and result in no new net impervious surface area.

Environmental Consequences

The project does not have the potential to directly discharge stormwater within the project limits to the above-identified receiving water bodies because they are outside the project limits. This project also does not

involve substantial excavation or earthwork activities that could impact the receiving water bodies. By incorporating appropriate engineering design and robust stormwater Best Management Practices during construction, minimal short-term water quality impacts are anticipated. This would be considered a less than significant impact. The project would not result in significant long-term impacts on water quality. During the construction phase, the project would include a Stormwater Pollution Prevention Plan prepared by the contractor to address short-term construction impacts on water quality.

2.1.11 Land Use and Planning

Project activities would occur mostly on existing Caltrans right-of-way. A temporary easement would be required to construct ADA curb ramps. An encroachment permit from the City of Santa Cruz will be needed to complete the curb ramp work. However, the use of construction easements would not alter existing land use or planning in the region. Project activities would not divide any existing communities and are not anticipated to conflict with any existing land use plan, policy, or regulations in the region.

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

The project is in the coastal zone, under the jurisdiction of the City of Santa Cruz, from approximately post mile 20.10 to post mile 20.20. The portion of the project within the coastal zone is subject to the policies contained in the 1992 General Plan/Local Coastal Program. Within the coastal zone, the project would include shoulder backing replacement and repaving of the roadway. The project would comply with all applicable coastal policies and is anticipated to qualify for a coastal development permit exemption. A less than significant impact would result.

2.1.12 Mineral Resources

Project activities would involve work on highway features that are located within or immediately next to the Caltrans right-of-way along State Route 1. The project would not be involved in the removal or extraction of mineral resources.

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

2.1.13 Noise

Considering the information in the Noise Technical Memorandum dated March 8, 2023, the following significance determinations have been made:

Question—Would the project result in:	CEQA Significance Determinations for Noise
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	**Less Than Significant Impact With Mitigation Incorporated**
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 2 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**

Affected Environment

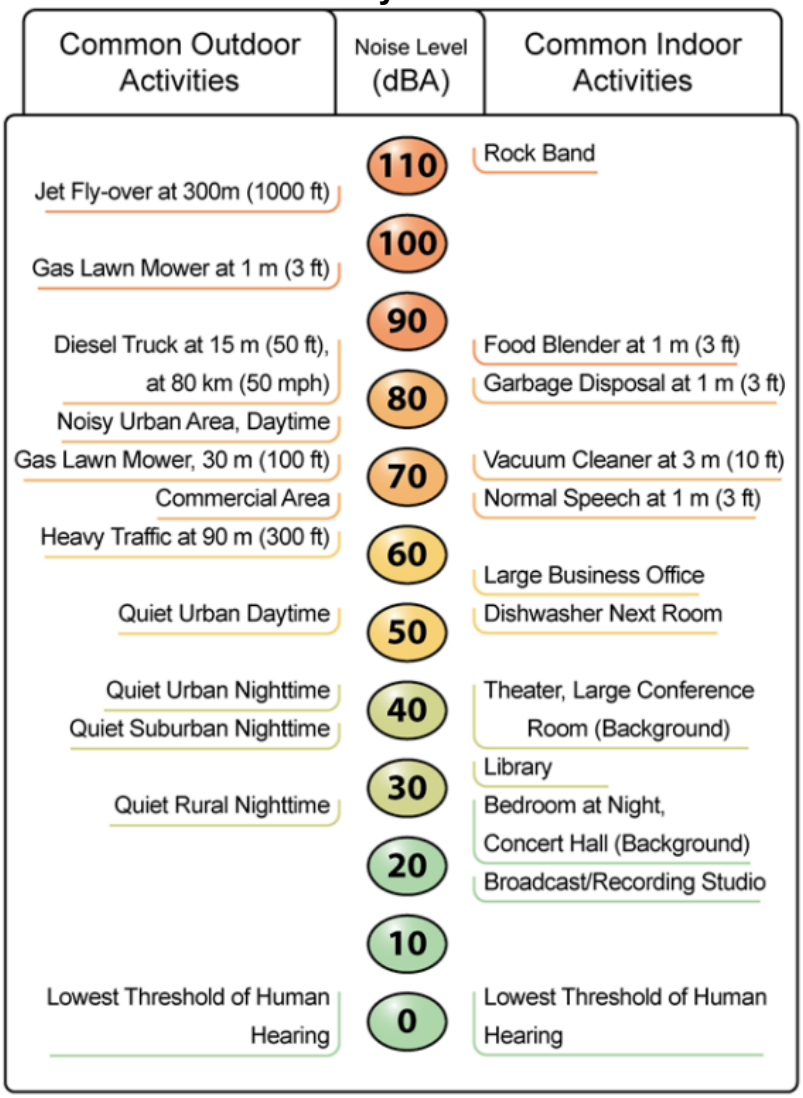
Noise Fundamentals

Noise is measured in decibels, which is a logarithmic measure of sound amplitude. Highway traffic noise is expressed in terms of the hourly, A-weighted decibel. A decibel is a unit that relates the sound pressure of noise to the faintest sound the young human ear can hear. The A-weighting refers to the amplification or attenuation of the different frequencies of the sound (pitch) to correspond to the way the human ear hears these frequencies.

An increase of 9 to 10 dB is generally perceived as a doubling of noise. In addition, when the source noise is doubled, there is a resulting 3 dB increase, which is typically the smallest change in noise that the human ear can detect without specifically listening for the change.

Noise levels associated with common indoor and outdoor activities are shown in Figure 2-1 below.

Figure 2-1 Noise Produced by Common Activities



Both distance and objects between the noise source and receptor can help reduce noise. Various factors affect the rate of sound attenuation, including whether a noise source is mobile or stationary, the material the ground is made from, and elevation.

Vibration Fundamentals

Vibration is produced by many types of commonly used construction equipment. Vibration may annoy humans and, in some cases, damage buildings. This damage could be structural damage, such as cracking of floor slabs, foundations, columns, beams, or walls, or cosmetic architectural damage, such as cracked plaster, stucco, or tile. Ground vibration also has the potential to disrupt the operation of vibration-sensitive research and advanced technology equipment.

The duration and amplitude of vibration generated by construction and maintenance equipment varies widely depending on the type of equipment. For example, the vibration from blasting has a high amplitude and short duration, whereas the vibration from grading is lower in amplitude but longer in duration. The 2020 Caltrans Transportation and Construction Vibration Guidance Manual contains potential measures to reduce vibration produced by various types of construction equipment.

Project Setting

The project spans 2.7 miles through the City of Santa Cruz. The land flanking on either side of the roadway is completely developed with single-family homes, multifamily housing, and commercial properties. It is estimated that there are well over 100 residential sensitive receptors with property lines next to the state right-of-way. A review of the immediate project area did not reveal any hospitals, convalescence homes, or other facilities that house sensitive receptors overnight. During the night, residents living near the construction site may be subject to noise and vibration. The effect of construction noise on residents is discussed below.

Furthermore, the project site is near historic buildings, some of which are eligible for inclusion in the National Register of Historic Places. The vibration produced by project construction activities is not anticipated to have a significant effect on historic buildings. This will be further evaluated in the Finding of Effect.

Environmental Consequences

Construction

Inevitably, local noise levels near project construction activities will experience a short-term increase. The amount of construction noise will vary with the particular activities and the types and models of equipment being used. Caltrans policy states that normal construction equipment should not emit noise levels greater than 86 A-weighted decibels (dBA) at 50 feet from the source.

Construction equipment that may be used for this project and their noise level at 50 feet are listed in Table 2.3 below.

Table 2.3 Construction Equipment Potentially Used for This Project and Associated Noise Level at 50 Feet

Equipment	Noise Level at 50 Feet A-Weighted Decibels (dBA)
Backhoe	78
Bar Bender	Not Applicable
Chain Saw	84
Clam Shovel	87
Compactor (Ground)	83
Compressor (Air)	78
Concrete Mixer Truck	79
Concrete Pump Truck	81
Concrete Saw	90
Cold Planer	90
Dump Truck	76
Excavator	81
Flat Bed Truck	74
Front End Loader	79
Generator (less than or equal to 25 Kilovolt-amps (≤25 kVA))	73
Generator (greater than or equal to 25 Kilovolt-amps (≥25 kVA))	81
Gradall	83
Grader	Not Applicable
Jackhammer	89
Mounted Impact Hammer (Hoe Ram)	90
Paver	77
Pickup Truck	75
Pneumatic Tools	85
Pumps	81
Roller Compactor (Asphalt)	80
Vacuum Street Sweeper	82
Vibratory Concrete Mixer	80
Welder/Torch	74

Source: Federal Transit Administration, 2006.

Since it is known that 0.15 foot of cold planing work is included, it can be inferred that the loudest piece of equipment would be expected to produce a noise level of approximately 90 A-weighted decibels (dBA) at 50 feet, above the 86 A-weighted decibels (dBA) standard nighttime threshold.

The project will require nighttime work due to daytime traffic conditions. Cold planing and paving are the main operations to be completed during the night. Construction of other project elements is anticipated to be completed during the day to the extent feasible; however, there are significant limitations to this due to the traffic levels through the corridor. It will be determined later in the project planning process if curb ramp construction can be completed during the day.

Nightwork can adversely impact local residents' normal sleep activities. However, potential impacts at any given sensitive receptor location are expected to be short term, intermittent, and conducted in accordance with Caltrans Standard Specifications. The baseline local noise levels are also significantly influenced by local traffic noise. In addition, Caltrans Standard Specifications Section 4-8.02 requires the contractor to control and monitor noise resulting from work activities and not exceed 86 A-weighted decibels maximum noise level (dBA Lmax) at 50 feet from the job site from 9:00 p.m. to 6:00 a.m. The contractor will be responsible for submitting a Noise Control Plan, which will outline how noise will be kept below this threshold to the extent feasible.

Adverse noise impacts from construction are anticipated due to cold planing, paving operations, and possibly sidewalk repairs and curb ramp replacements if this work cannot be completed during the day. However, since construction would be temporary and intermittent, conducted in accordance with Caltrans Standard Specifications, and because local noise levels are significantly influenced by local traffic noise, the potential impact would be minimized to the extent feasible. To minimize impacts on residents' normal nighttime sleep activities, it is recommended that, whenever possible, construction work be done during the day. When nighttime construction is necessary, the noisiest construction activities should be done as early in the evening as possible. Caltrans Standard Specifications Section 14-8.02 requires the contractor to control and monitor noise resulting from work activities and not to exceed 86 A-weighted decibels maximum noise (dBA Lmax) at 50 feet from the job site from 9:00 p.m. to 6:00 a.m. See below for noise avoidance, minimization, and mitigation measures.

Operation

Since no additional lanes or capacity are being added to the highway, there will be no difference in long-term noise impacts due to the project.

Avoidance, Minimization, and Mitigation Measures

The following measures shall be implemented to minimize disturbance due to noise:

Avoidance and Minimization Measures:

1. Notify the public in advance of the construction schedule when construction noise and upcoming construction activities likely to produce an adverse noise environment are expected. This notice shall be given two weeks in advance. Notice will be published in local news media and will include the dates and duration of the proposed construction activity. The District 5 Public Information Office posts notice of the proposed construction and potential community impacts after receiving notice from the resident engineer.

2. The contractor shall develop a Noise Control Plan and submit it to District noise staff for review. District noise staff will be responsible for obtaining a nonstandard special provision addressing the necessary requirements of the Noise Control Plan. The bullets below generally describe the noise-reducing measures the Noise Control Plan will include.

a. Shield loud pieces of stationary construction equipment with sound barriers if complaints are received.

b. Locate portable generators, air compressors, etcetera, as far away from sensitive noise receptors as feasible.

c. Limit the grouping of major pieces of equipment operating in one area to the greatest extent feasible.

d. Use newer equipment that is quieter and ensure that all equipment items have the manufacturers' recommended noise abatement measures, such as mufflers, engine covers, and engine vibration isolators, intact and operational. Internal combustion engines used for any purpose on or related to the job shall be equipped with a muffler or baffle of a type recommended by the manufacturer.

e. Consult District noise staff if complaints are received during the construction process.

f. The contractor shall conduct construction noise monitoring as prescribed in his or her Noise Control Plan.

g. Whenever possible, conduct construction work during the day.

h. When nighttime construction is necessary, the noisiest construction activities should be done as early in the evening as possible.

3. The bullets below generally describe the vibration-reducing measures the Noise Control Plan will include.

a. Operate earthmoving equipment as far away from vibration-sensitive sites as possible. Locate equipment on the construction lot as far away from noise-sensitive sites as possible.

b. Phase demolition, earthmoving, and ground-impacting operations so as not to occur in the same time period.

c. Route truck traffic away from residential streets, if possible. Select streets with the fewest homes if no alternatives are available.

d. Select demolition methods not involving impact, where possible.

e. Avoid the use of vibratory rollers and packers near sensitive areas.

f. Construct noise barriers around equipment when feasible.

4. In addition, the Noise Control Plan must include information about the monitoring of construction activities and information about how noise will be monitored and controlled. The bullet points below generally outline what must be included.

a. The interval at which noise monitoring will be performed and triggers that would require additional monitoring

b. A list of the locations and construction activities to be monitored

c. Description of the construction activities and anticipated noise levels at these locations

d. Operating sound levels of construction equipment at specified distances and locations

e. Sound control measures to maintain noise levels within specified limits

f. Corrective actions if specified sound levels are exceeded

g. A list of sound level meters and calibrators with current calibration certifications

h. The names, qualifications, and resumes of the person who prepared the Noise Control Plan and the personnel who will perform noise monitoring.

5. The Noise Control Plan must be prepared by a qualified person who meets one of the following requirements:

a. Board Certified by the Institute of Noise Control Engineering of the USA with two years of noise control experience

b. Registered civil engineer with three years of full-time noise control experience

c. A bachelor’s degree or a higher degree from an Accreditation Board for Engineering and Technology-accredited institution of higher education in a relevant field of engineering, environmental science, or earth science and five years of full-time noise control experience. A bachelor’s degree or higher degree from an Accreditation Board for Engineering and Technology-accredited institution of higher education and 10 years of full-time noise control experience

6. Noise monitoring shall be conducted by a person with at least two years of experience in conducting field noise measurements. Submit the qualifications of each of the individuals who will be performing the noise monitoring.

7. The sound level meter must meet quality standards, which will be determined by the noise engineer and outlined in the Noise Control Plan.

8. Each time noise monitoring is completed, a report of the findings shall be submitted to Caltrans for review.

Mitigation Measures:

9. If during construction, noise levels are found to exceed 86 A-weighted decibels maximum noise (dBA Lmax) at 50 feet from the job site from 9:00 p.m. to 6:00 a.m., corrective action to reduce noise levels below the threshold and minimize disruption due to construction noise shall be taken. Corrective action may include, but would not be limited to:

a. Shielding construction equipment with temporary sound barriers or sound blankets

b. Offering noise-cancelling headphones to residences within 500 feet of the construction

c. Altering the grouping, location, or time of use of construction equipment

2.1.14 Population and Housing

The project would not be involved in altering the existing capacity or alignment of State Route 1. Therefore, the project is not anticipated to conflict with any existing population or housing status in the region.

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

2.1.15 Public Services

Project activities would be limited to the existing alignment of State Route 1. The project would not impact any planned or existing governmental facilities. The project would maintain public access on State Route 1 during project construction, and access to any existing governmental facilities in proximity of project work locations would be maintained.

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

2.1.16 Recreation

The project would improve the existing roadway and travel for pedestrians and cyclists. The project would not include recreational facilities or require the construction or expansion of recreational facilities. The project would not increase the use of parks or recreational facilities.

Question—Would the project:	CEQA Significance Determinations for Recreation
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Recreation
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	**No Impact**

2.1.17 Transportation

The project would not alter the existing alignment or capacity of State Route 1 and is not anticipated to conflict with any existing or planned transportation-related programs or facilities in the region. The project would not alter existing vehicle miles traveled on State Route 1. Emergency access on State Route 1 would be maintained during project construction and would not be altered once the project is completed.

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

Affected Environment

The project runs about 2.65 miles along State Route 1 through the City of Santa Cruz. This portion of State Route 1 is a four-lane major highway through the city, with a posted speed limit of 25 to 40 miles per hour throughout the project limits. The highway serves as a major local thoroughfare and emergency access route.

Environmental Consequences

CEQA Guidelines Section 15064.3, subdivision (b), outlines criteria for determining a project's impact on vehicle miles traveled. The project would not contribute to increased VMT during operation because it would

not increase capacity. During construction, vehicle trips necessary to complete the construction would occur. These vehicle trips would be generated in the short term and only as necessary to complete the project repairs and upgrades.

Regarding emergency access, the completed project would improve highway reliability by rehabilitating the pavement. There would be traffic delays during construction due to temporary closures, ramp closures, and/or one-way traffic control. However, traffic stops and detours would be executed in accordance with the traffic control plan. Emergency services would be notified of potential disruptions, delays, or detours in advance to minimize impacts on emergency access.

2.1.18 Tribal Cultural Resources

Considering the information in the Historical Resources Evaluation Report, dated June 2023, the Archaeological Survey Report, dated August 2023, and the Historic Properties Survey Report, dated August 2023, the following significance determinations have been made:

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

Question:	CEQA Significance Determinations for Tribal Cultural Resources
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	**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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	**Less Than Significant Impact**

See the archaeology discussion under the Cultural Resources heading above.

The potential for currently unidentified intact archaeological deposits to be uncovered is considered low because the project area has witnessed multiple episodes of development and redevelopment over the last century. Additionally, the project area has been previously disturbed by multiple episodes of highway construction and residential development. The two closest known archaeological sites are located well outside the current project footprint and will not be impacted by project-related activities.

If previously unidentified cultural materials are unearthed during construction, it is Caltrans' policy that work be stopped in that area until a qualified archaeologist can assess the significance of the find. Additional archaeological surveys will be needed if project limits are extended beyond the present survey limits. A less than significant impact would result.

2.1.19 Utilities and Service Systems

Based on an evaluation of the utilities and service systems within the project area, the following significance determinations have been made:

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

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	**No Impact**

Affected Environment

The project would replace and rehabilitate the pavement and highway features on State Route 1 through the City of Santa Cruz. Santa Cruz is a moderately populated city with above- and below-ground utilities owned and operated by various providers. The city conveys surface water to end users using a network of underground pipelines. The Santa Cruz Wastewater Treatment Facility treats the city's wastewater. Trash and recycling produced within the city limits are disposed of at the City of Santa Cruz Resource Recovery Facility and Recycling Center.

Environmental Consequences

Neither project construction nor operation would significantly increase demand for water or wastewater supply or demand. The project would also not alter the functions or demand for electrical, natural gas, or telecommunications facilities in the region.

The project is not anticipated to generate excessive amounts of solid waste that would overwhelm the capacities of existing waste management facilities. The project would recycle any recyclable waste materials generated from project construction. Waste materials generated by project construction would be collected and disposed of properly to meet all state and federal requirements.

The project would have a less than significant impact due to utility relocations. The project may require the relocation of some utility lines and maintenance hole covers. The utility relocations would not have a significant impact on the environment.

The project would not generate solid waste during operation. During construction, some solid waste would be generated, but not in excess of infrastructure capacity or state or local standards. To the extent that it is safe and feasible, construction materials would be reused or recycled. In addition, waste materials generated by project construction would be collected and disposed of properly.

2.1.20 Wildfire

According to CalFire's Fire Hazard Severity Zone mapping tool, the project lies within an Unzoned Local Responsibility Area. The project area is not

designated as a Very High Fire Hazard Severity Zone, so there would be no impact related to wildfires.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones:

Question—Would the project:	CEQA Significance Determinations for Wildfire
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**

2.1.21 Mandatory Findings of Significance

Question:	CEQA Significance Determinations for Mandatory Findings of Significance
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	**Less Than Significant Impact**

Question:	CEQA Significance Determinations for Mandatory Findings of Significance
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 With Mitigation Incorporated**

Affected Environment

Caltrans proposes to rehabilitate 8.3 lane miles of flexible Class 2 pavement using Capital Preventive Maintenance strategies. These strategies include, but are not limited to, digouts, profile grinding, cold planing 0.15 foot of pavement, and placing 0.15 foot of Rubberized Hot Mix Asphalt overlay. The project would also upgrade numerous assets within Caltrans' right-of-way and within the project limits. The project passes through downtown Santa Cruz.

Environmental Consequences

Natural and Historical Resources

Biology

The project would minimally affect biological resources. Few protected plant and animal species, or their habitats, are present within the Biological Study Area.

Monterey pine trees are present; however, they are outside their native range, and the project would not affect the species. In addition, tree protection measures will be implemented. Nesting birds and marbled murrelets have habitat present within the Biological Study Area. Avoidance and minimization measures will be implemented during construction, and no impact is anticipated. A small portion of the project is located within the California red-legged frog critical habitat and within the dispersal range of documented occurrences. No breeding or nonbreeding habitat occurs in the Biological Study Area. Avoidance and minimization measures, including a work window, will be implemented. The Federal Endangered Species Act effects determination is that the project may affect, but is not likely to adversely affect, the California red-legged frog or its critical habitat. Informal consultation with the U.S. Fish and Wildlife Service will be completed for the use of the Programmatic Biological Opinion.

Cultural Resources

The project is unlikely to affect archaeological resources. No prehistoric or historic-period archaeological resources have been recorded within or next to the project limits. The potential for currently unidentified intact archaeological deposits to be uncovered is considered low because the highway and project area have witnessed multiple episodes of development and redevelopment over the last century. If previously unidentified cultural materials are unearthed during construction, it is Caltrans' policy that work be stopped in that area until a qualified archaeologist can assess the significance of the find. Additional archaeological surveys will be needed if project limits are extended beyond the present survey limits. A less than significant impact would result.

The project is not anticipated to affect historic architectural resources. Fifteen properties in the Study Area were evaluated. Four of the 15 properties are eligible for listing in the National Register of Historic Places or the California Register of Historical Resources, including three resources that were previously determined eligible and one resource that was determined eligible as a result of studies conducted for the current project. One additional property that was determined not to be eligible for inclusion in the National Register of Historic Places or California Register of Historical Resources was determined to be a historical resource under CEQA because it is listed in the local Santa Cruz Historic Building Survey. The State Historic Preservation Office concurred with this determination. The present study confirms these properties' eligibility status. Additionally, the Santa Cruz and Felton Railroad, which intersects the Study Area at approximately milepost 17.65, is assumed to be eligible for the purposes of this undertaking only due to its large resource size and limited potential for effects. This assumption of eligibility was approved by the Caltrans Cultural Studies Office.

The potential for project impacts, including the potential for impacts from vibration produced during construction, will be further evaluated in the Finding of Effect, in consultation with the State Historic Preservation Office. The project is not anticipated to have a significant impact on any of the historic properties within the project limits. The anticipated finding for the project is a Finding of No Adverse Effect with Standard Conditions. Environmentally sensitive areas would be marked to ensure protection of the historical resources during construction.

Human Environment

Aesthetics

The proposed improvements would cause minimal, if any, effect on views of scenic vista points in the area. The visibility of the distant Santa Cruz Mountains would remain the same and would continue to contribute to the scenic vista.

The asphalt resurfacing portion of the project will not significantly change or degrade public views or visual quality, though the project may result in a more engineered appearance for the pedestrian environment. Community input will be gathered to ensure continuity with the adopted City of Santa Cruz 2030 General Plan and Mission Street Urban Design Plan. Design decisions, streetscape element selection, and aesthetic treatments can reduce the potential for an overbuilt or engineered appearance. Substantial community involvement is recommended regarding the aesthetics of the entire project and to maintain consistency with the city's planning documents.

Existing signs will be upgraded to more reflective sheeting. This may result in slightly more glare for night drivers; however, it would not significantly impact day or nighttime views of the area or be inconsistent with the highway environment.

Implementation of the project would result in visual changes as seen from public viewpoints, such as the State Route 1 roadway and sidewalks. Viewer sensitivity varies from low to moderate, depending on whether a person is in a vehicle, a recreationist, or visiting a local business. Street trees and landscape planting could be considered to soften the effects of urbanizing the corridor. Additionally, consideration and implementation of the city's planning documents, including the Mission Street Urban Design Plan 2022, could reduce visual discord and assist the city in improving the character and quality of the streetscape.

Although some visual changes would be noticeable, they would not be unexpected elements in the downtown environment. At several locations, widening pedestrian refuge islands, modifying curb cuts, adding bus stops, high-visibility crosswalks, and similar features are common along street thoroughfares.

Implementation of avoidance and minimization measures would ensure that a less than significant impact would result.

Air Quality

There would be a temporary increase in air emissions and fugitive dust during the construction period, which would have a temporary impact on local air quality. However, it is anticipated that there would be minor earthwork required for this project, so minimal dust generation would be expected.

To minimize dust emissions from the project, Caltrans Standard Specifications Section 14-9.02-Air Pollution Control would be implemented. Section 14-9.02 states that the contractor is responsible for complying with all local air pollution control rules, regulations, ordinances, and statutes that apply to work performed under the contract. Additionally, the project-level Stormwater Pollution Prevention Plan would include water pollution control

measures that also serve as standard dust emission minimization measures. A less than significant impact would result.

Geology and Soils

The project is subject to the geologic and soil conditions within the project limits. The project is crossed by the Ben Lomond fault. Due to the age of the fault, the project would not be considered susceptible to surface fault rupture hazards per Caltrans standards.

The risk of strong seismic ground shaking on State Route 1 would be due to any major events occurring on the San Andreas fault zone, which is about 10 miles northwest of the project limits. However, the project would rehabilitate the roadway and not contribute to this risk.

The Hazards and Geophysical map application from Santa Cruz County's Geographic Information System Department webpage identified a portion of the project limits as areas of "Very High" and "High" potential for liquefaction. Most of the project limits are within an area with a "Low" potential for liquefaction. This Capital Preventative Maintenance project would not increase the risk of liquefaction.

The U.S. Department of Agriculture's Web Soil Survey data indicates that 88 percent of the soils mapped within the project limits are rated for moderate soil erosion, and 12 percent of the soils have a low soil erosion rating. The project would include Best Management Practices for reducing erosion during construction. During operation, the culverts rehabilitated by the project would help to effectively convey water during storm events and reduce erosion.

Upon review of geologic maps available on the California Geological Survey's database and Santa Cruz County's Hazard and Geophysical map application, the project limits between post miles 17.50 and 17.90 have a potential "Very High" to "High" liquefaction rating. A higher potential for lateral spreading, subsidence, and collapse corresponds to the same area. Considering the nature of the project activities, the project would not increase risks related to the liquefaction of soil.

The project limits on State Route 1 are predominantly supported by artificial fill per Caltrans Standard Specifications. Unified Soil Classification data from the U.S. Department of Agriculture's soil survey database also shows the project limits are on soils with no or relatively low expansive clay content.

The project would not directly or indirectly cause potential substantial adverse effects due to geologic or soil conditions. A less than significant impact would occur.

Greenhouse Gas Emissions

Because the project would not increase the number of travel lanes or otherwise increase capacity on State Route 1, it is not expected to alter operational greenhouse gas emissions. However, some greenhouse gas emissions would be generated during the construction period.

All construction contracts include Caltrans Standard Specifications, which are meant to minimize the project's greenhouse gas emissions. In addition, visual and biology measures will require vegetation preservation and revegetation. This would help offset construction emissions. In addition, a traffic control plan and construction staging plan will be developed to guide traffic and maximize traffic efficiency while considering safety and construction needs.

Furthermore, to minimize the project's greenhouse gas emissions during construction, avoidance and minimization measures listed in the Greenhouse Gas Emissions section would be implemented.

The project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Hazardous Waste

Furthermore, the project would include Caltrans Standard Special Provisions for hazardous waste testing and monitoring to protect the general public from hazards that could arise from the project's construction activities. The project would not result in adverse effects due to the generation of hazards or exposure of the general public to hazardous waste. Therefore, the project is not anticipated to result in considerable impacts on the general public due to hazardous waste.

Water Quality

The project does not have the potential to directly discharge stormwater within the project limits to the above-identified receiving water bodies because they are outside the project limits. This project also does not involve substantial excavation or earthwork activities that could impact the receiving water bodies. By incorporating appropriate engineering design and robust stormwater Best Management Practices during construction, minimal short-term water quality impacts are anticipated. This would be considered a less than significant impact. The project would not result in significant long-term impacts on water quality. During the construction phase, the project would include a Stormwater Pollution Prevention Plan prepared by the contractor to address short-term construction impacts on water quality.

Noise

As explained in further detail in the Noise section of this document, the noise levels in the vicinity of project construction activities would experience a short-term increase due to construction activities. The amount of construction noise

would vary with the particular activities and the types and models of equipment used by the contractor. Caltrans policy states that normal construction equipment should not emit noise levels greater than 86 A-weighted decibels (dBA) at 50 feet from the source.

However, the loudest piece of equipment would be expected to produce a noise level of approximately 90 A-weighted decibels (dBA) at 50 feet, above the 86 A-weighted decibels (dBA) standard nighttime threshold.

Caltrans Standard Specifications Section 14-8.02 requires the contractor to control and monitor noise resulting from work activities and not to exceed 86 A-weighted decibels maximum noise level (dBA Lmax) at 50 feet from the job site from 9:00 p.m. to 6:00 a.m. The contractor would be responsible for submitting a Noise Control Plan, which would outline how noise would be kept below this threshold to the extent feasible. With the implementation of avoidance, minimization, and mitigation measures outlined in the Noise section and in the sub-section below, a less than significant impact would result.

Transportation

During construction, vehicle trips necessary to complete construction would occur. These vehicle trips would be generated in the short term and only as necessary to complete the project repairs and upgrades. A less than significant impact on vehicle miles traveled would result.

Regarding emergency access, the completed project would improve highway reliability by rehabilitating the pavement. There would be traffic delays during construction due to temporary closures, ramp closures, and/or one-way traffic control. However, traffic stops and detours would be executed in accordance with the traffic control plan. Emergency services would be notified of potential disruptions, delays, or detours in advance to minimize impacts to emergency access. A less than significant impact would result.

Avoidance, Minimization, and/ or Mitigation Measures

See the corresponding sections located in the prior pages of this document for a list of avoidance, minimization, and/ or Mitigation measures for each issue area.

Appendix A Title VI 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
(916) 654-6130 | FAX (916) 653-5776 TTY 711
www.dot.ca.gov

September 2022

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

"Provide a safe and reliable transportation network that serves all people and respects the environment"

List of Technical Studies Bound Separately (Volume 2)

- Visual Impact Assessment
- Air Quality, Greenhouse Gas, Noise and Water Quality Technical Memorandum
- Natural Environment Study Minimal Impact
- Cultural Resources Historic Properties Survey Report, Archaeological Survey Report, Historical Resources Evaluation Report
- Paleontological Identification Report
- Hazardous Waste Initial Site Assessment
- Hydraulics Location Hydraulic Study, Floodplain Evaluation Report Summary
- Geologic Hazards Report
- Climate Change Report

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

Lara Bertaina
District 5 Environmental Division
California Department of Transportation
50 Higuera Street, San Luis Obispo, California 93401

Or send your request via email to: lara.bertaina@dot.ca.gov

Or call: 805-779-0792

Please provide the following information in your request:

Project title: Santa Cruz Route 1 Capital Preventative Maintenance Project

General location information: On State Route 1 through Santa Cruz, from post mile 17.50 to post mile 20.20

District number-county code-route-post mile: 05-SCR-1-PM 17.50-20.20

Project ID number: 0519000067