

Marin County State Route 37 Capital Preventive Maintenance (CAPM) Pavement Project

MARIN COUNTY, CALIFORNIA
DISTRICT 4 – MRN – 37 (PM R11.2-14.6)
04-2K740/0417000018

Initial Study with Proposed Negative Declaration



**Prepared by the
State of California, Department of Transportation**

March 2022



General Information about this Document

What's in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study with Proposed Negative Declaration (IS/ND) for the proposed Marin County State Route 37 Capital Preventive Maintenance (CAPM) Pavement Project, Marin County, California, from ramp (R) 11.2 to post mile (PMs) 14.6 (Project) (Figure 1-1).

As the lead agency under the California Environmental Quality Act (CEQA), Caltrans has prepared this IS/ND, which describes why the Project is being proposed, how the existing environment could be affected by the Project, potential environmental impacts, and the proposed Project features, and avoidance and minimization measures.

What you should do:

- Please read this document.
- The document, maps, and Project information are available for review and download at www.sr37corridorprojects.com. Additionally, the document will be made available at the following two locations in the vicinity of the proposed Project:
 - Novato Library
1720 Novato Boulevard
Novato, CA 94947
 - South Novato Library
931 C Street
Novato, CA 94949
- We would like to hear what you think. Send comments by April 30, 2022 to:

Caltrans, District 4
ATTN: Arnica MacCarthy
P.O. Box 23660, MS-8B
Oakland, CA 94623-0660

Or pavemarin37@dot.ca.gov

What happens next:

Per CEQA Section 15073, Caltrans will circulate the IS/ND for review for 30 days from March 31 to April 30, 2022. During the 30-day public review period, the general public and responsible and trustee agencies can submit comments on this document to Caltrans. Caltrans will consider the comments and will respond to the comments after the 30-day public review period.

After comments have been received from the public and reviewing agencies, Caltrans may grant environmental approval to the proposed Project, conduct additional environmental studies, or abandon the Project. If the Project is granted environmental approval and funding is obtained, Caltrans could design and construct all or part of the Project.

Alternative Formats:

For individuals with sensory disabilities, the document can be made available in Braille, in large print, on audiocassette, or on computer disk by writing to the Caltrans District 4 address or email or by calling **California Relay Service (800) 735-2929 (TTY), (800) 735-2922 (Voice), or 711.**

An accessible electronic copy of this document is available to download at:
www.sr37corridorprojects.com.

Initial Study with Proposed Negative Declaration

04-MRN-37

11.2-14.6

04-2K740


Dist. – Co. – Rte.

PM

E.A.

Project title:	Marin County State Route 37 Capital Preventive Maintenance (CAPM) Pavement Project
Lead agency name and address:	California Department of Transportation 111 Grand Avenue, Oakland, CA 94612
Contact person and phone number:	Arnica MacCarthy, Senior Environmental Planner (510) 506-0481
Project location:	Marin County, California
General plan description:	Highway
Zoning:	Transportation Corridor
Other public agencies whose approval is required (e.g., permits, financial approval, or participation agreements);	<ul style="list-style-type: none"> • California Transportation Commission • Letter of Concurrence from the U.S. Fish and Wildlife Service • Letter of Concurrence from the National Marine Fisheries Service

The document, maps and Project information are available for review and download at www.sr37corridorprojects.com.



Lindsay Vivian
Chief, Office of Environmental Analysis
District 4, California Department of Transportation

March 21, 2022

Date

To obtain a copy in Braille, in large print, on computer disk, or on audiocassette, please contact: Department of Transportation, Attn: Arnica MacCarthy, Senior Environmental Planner, Office of Environmental Analysis, 111 Grand Avenue, MS 8-B, Oakland CA 94612: (510) 506-0481 (Voice) or use the California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice) or 711.

Proposed Negative Declaration

Project Description

The California Department of Transportation (Caltrans) has prepared this Initial Study with Proposed Negative Declaration for the proposed Marin County State Route 37 Capital Preventive Maintenance Pavement Project, Marin County, California, from ramp 11.2 to post mile 14.6 (Project) (Figure 1-1).

The Project includes resurfacing and repairing the existing asphalt-concrete pavement; injecting polyurethane foam below the roadway to address settlement correction; replacing traffic loop detectors, and asphalt-concrete dikes; upgrading concrete barriers, guard rails, and curb ramps; installing enhanced wet/night visibility striping; adjusting and cleaning drain inlets; and providing vegetation control under guardrails and thrie-beam barriers.

Determination

This Proposed Negative Declaration is included to notify the public and reviewing agencies that Caltrans intends to adopt a Negative Declaration for this Project. This Negative Declaration is subject to change based on comments received by the public and reviewing agencies.

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

- The proposed Project would have no impact on agriculture and forest resources, cultural resources, land use and planning, mineral resources, population and housing, public services, recreation, and tribal cultural resources.
- The proposed Project would have less than significant impacts on aesthetics, agriculture and forest resources, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous waste, hydrology and water quality, noise, transportation and traffic, utilities and service systems, and wildfire.

Melanie Brent
Deputy District Director, Environmental Planning
and Engineering
District 4, California Department of Transportation

Date

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Chapter 1 Proposed Project

1.1 Introduction

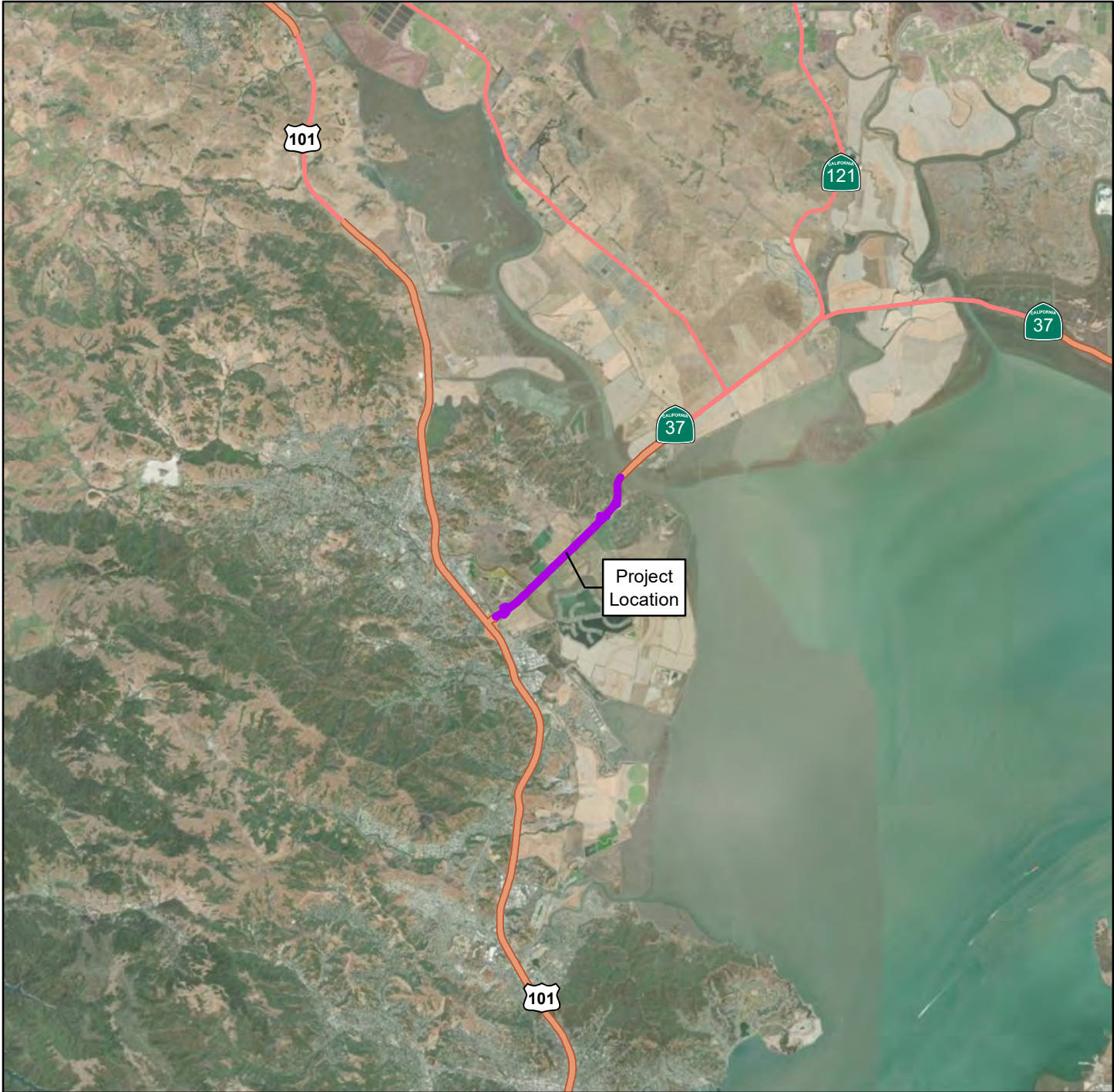
The California Department of Transportation (Caltrans) is the California Environmental Quality Act (CEQA) lead agency and sponsor for the proposed Marin County State Route 37 Capital Preventive Maintenance (CAPM) Pavement Project (Project). Caltrans proposes to preserve and extend the life of the existing pavement on approximately 14 lane miles (3.4 linear miles) of State Route (SR) 37 from the Ignacio overhead crossing (U.S. Highway 101 junction) to the Petaluma River Bridge at the Marin/Sonoma County line (ramp 11.2 to post mile [PM] 14.6) (Figure 1-1).

The Project includes resurfacing and repairing the existing asphalt-concrete (AC) pavement; injecting polyurethane foam below the roadway to address settlement correction; replacing traffic loop detectors, and AC dikes; upgrading concrete barriers, guard rails, and curb ramps; installing enhanced wet/night visibility striping; adjusting and cleaning drain inlets; and providing vegetation control under guardrails and thrie-beam barriers. An overview of the Project area is shown on Figure 1-2. The Project limits (to include work and staging areas) are shown on Figure 1-3.

This Project is funded by the State Highway Operation and Protection Program (SHOPP) 201.121, under the Capital Preventive Maintenance Program. The SHOPP Program is the state's "fix-it-first" program, which funds the repair and preservation of the state highway system, safety improvements, and some highway operational improvements.

1.2 Purpose and Need

The purpose of this Project is to preserve and extend the life of the existing pavement and improve ride quality on a portion of SR 37 in Marin County. The Project is needed because the pavement conditions on SR 37 in the Project limits are characterized as having distressed pavement, resulting in poor ride quality and potential pavement failure.




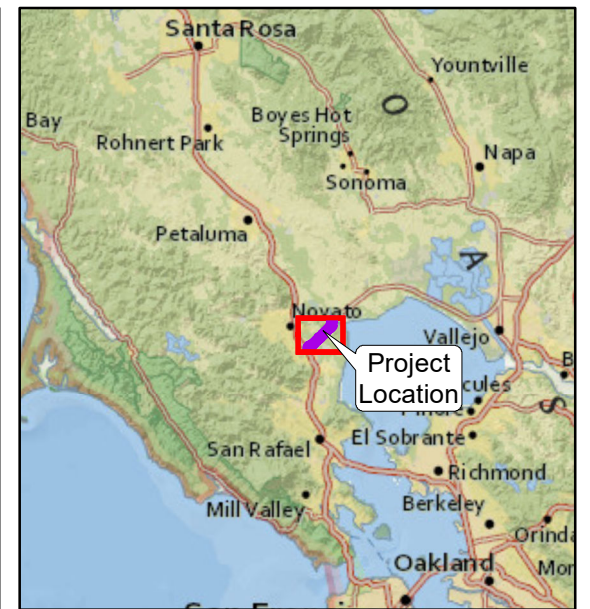
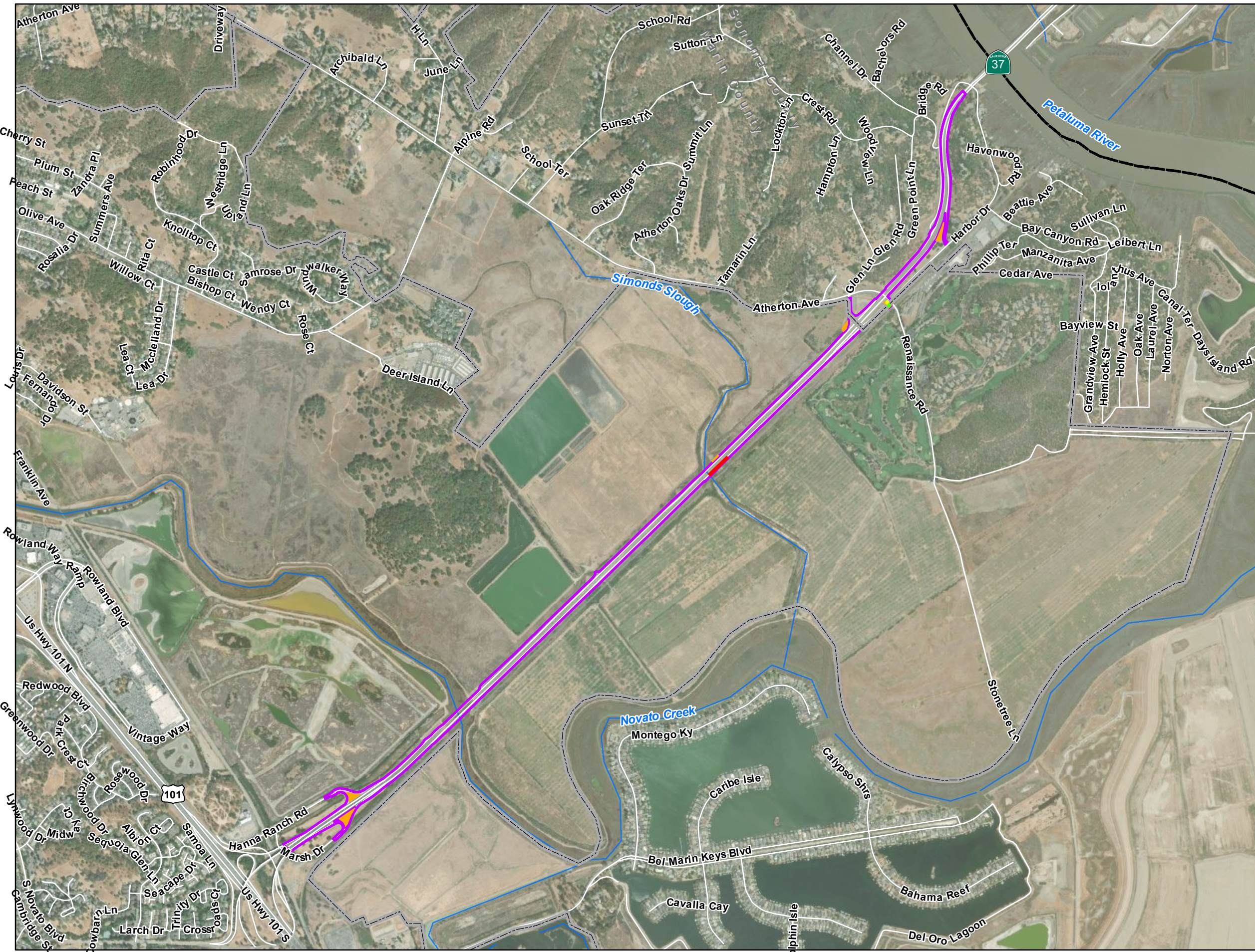
LEGEND
 Project Location



FIGURE 1-1
Project Location Map
 SR 37 CAPM Pavement Preservation
 EA 04-2K740, MRN-37 PM-R11.2/14.6
 Marin County, California



- LEGEND**
- Work Area
 - Curb Ramp
 - Staging Area
 - Temporary Construction Easement
 - Settlement Correction
 - Novato City Limits
 - County
 - Rivers/Streams

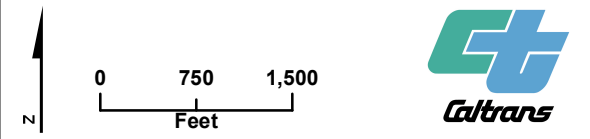
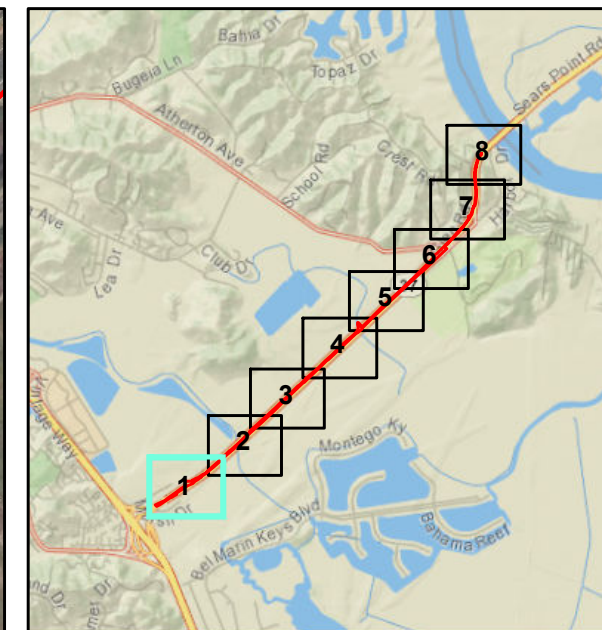
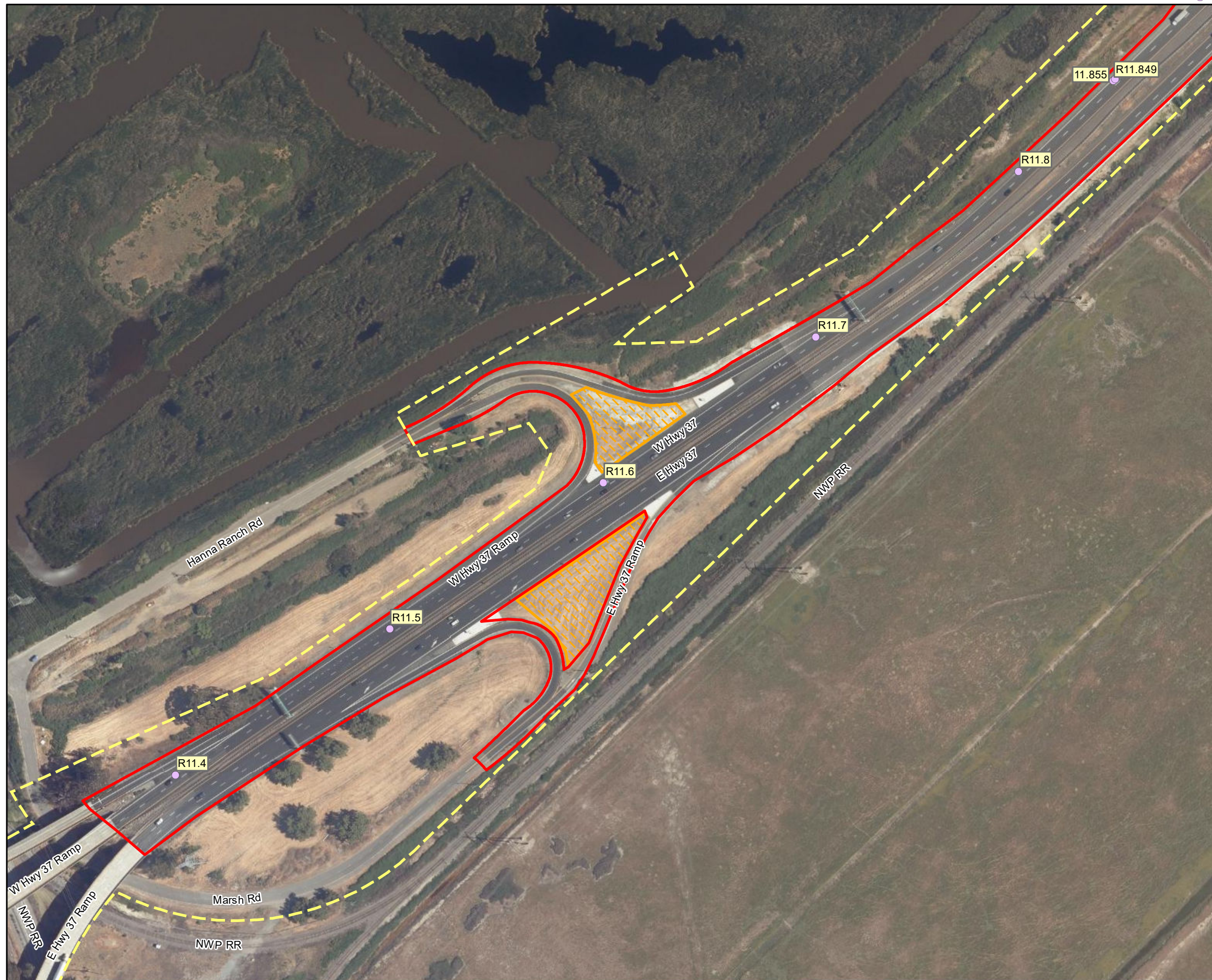



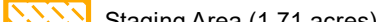


FIGURE 1-2
Project Area
 SR 37 CAPM Pavement Preservation
 EA 04-2K740, MRN-37 PM-R11.2/14.6
 Marin County, California



LEGEND

-  Post Mile
-  Caltrans Right of Way
-  Work Area (51 acres)
-  Staging Area (1.71 acres)

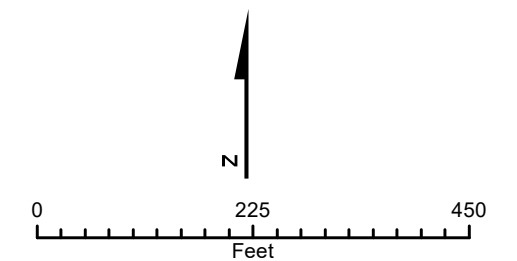
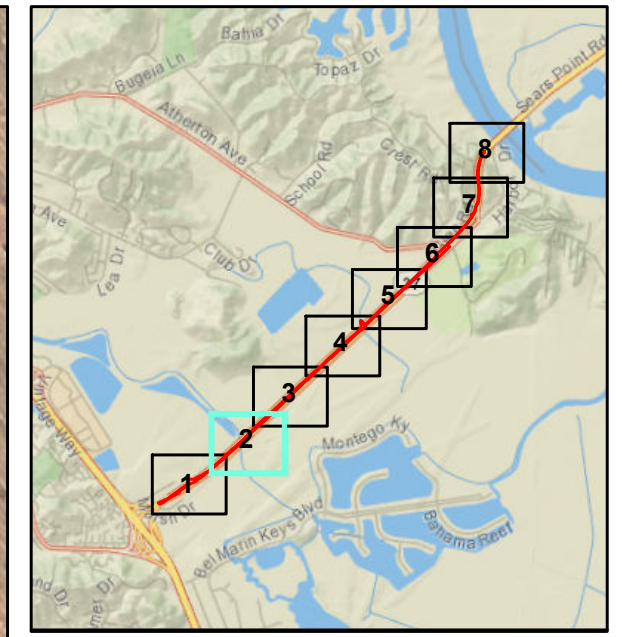


FIGURE 1-3
Map 1 of 8
Project Limits
 SR 37 CAPM Pavement Preservation
 EA 04-2K740, MRN-37 PM-R11.2/14.6
 Marin County, California



- LEGEND**
- Post Mile
 - Caltrans Right of Way
 - Work Area (51 acres)

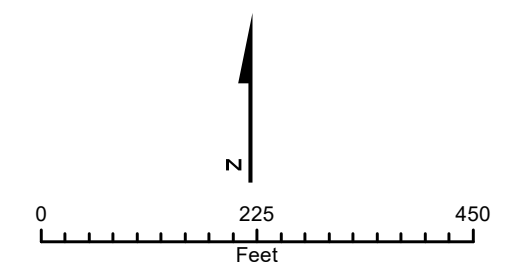
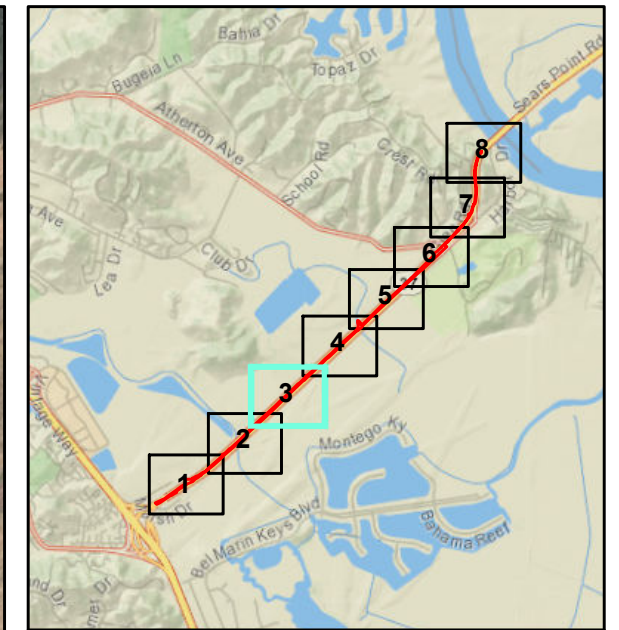




FIGURE 1-3
Map 2 of 8
Project Limits
 SR 37 CAPM Pavement Preservation
 EA 04-2K740, MRN-37 PM-R11.2/14.6
 Marin County, California



LEGEND

-  Post Mile
-  Caltrans Right of Way
-  Work Area (51 acres)

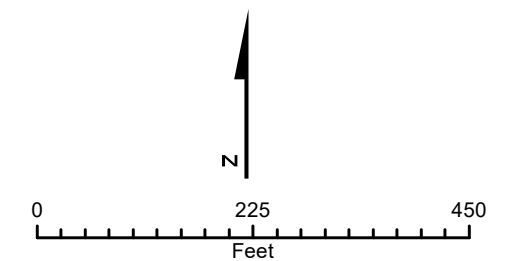
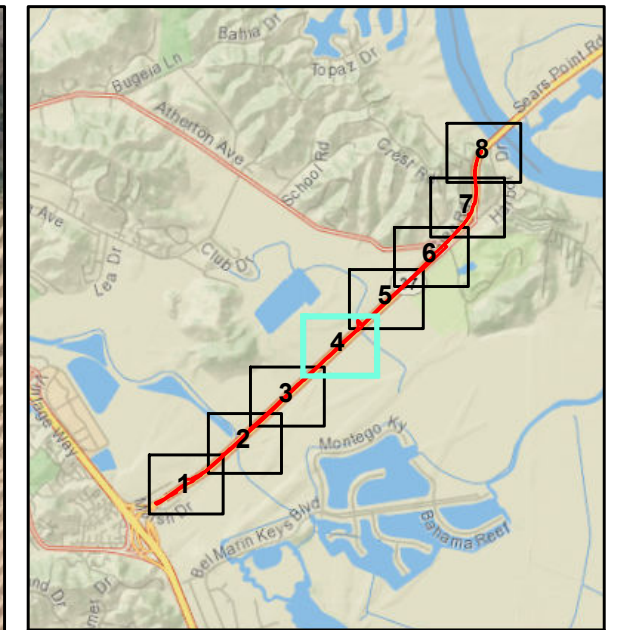
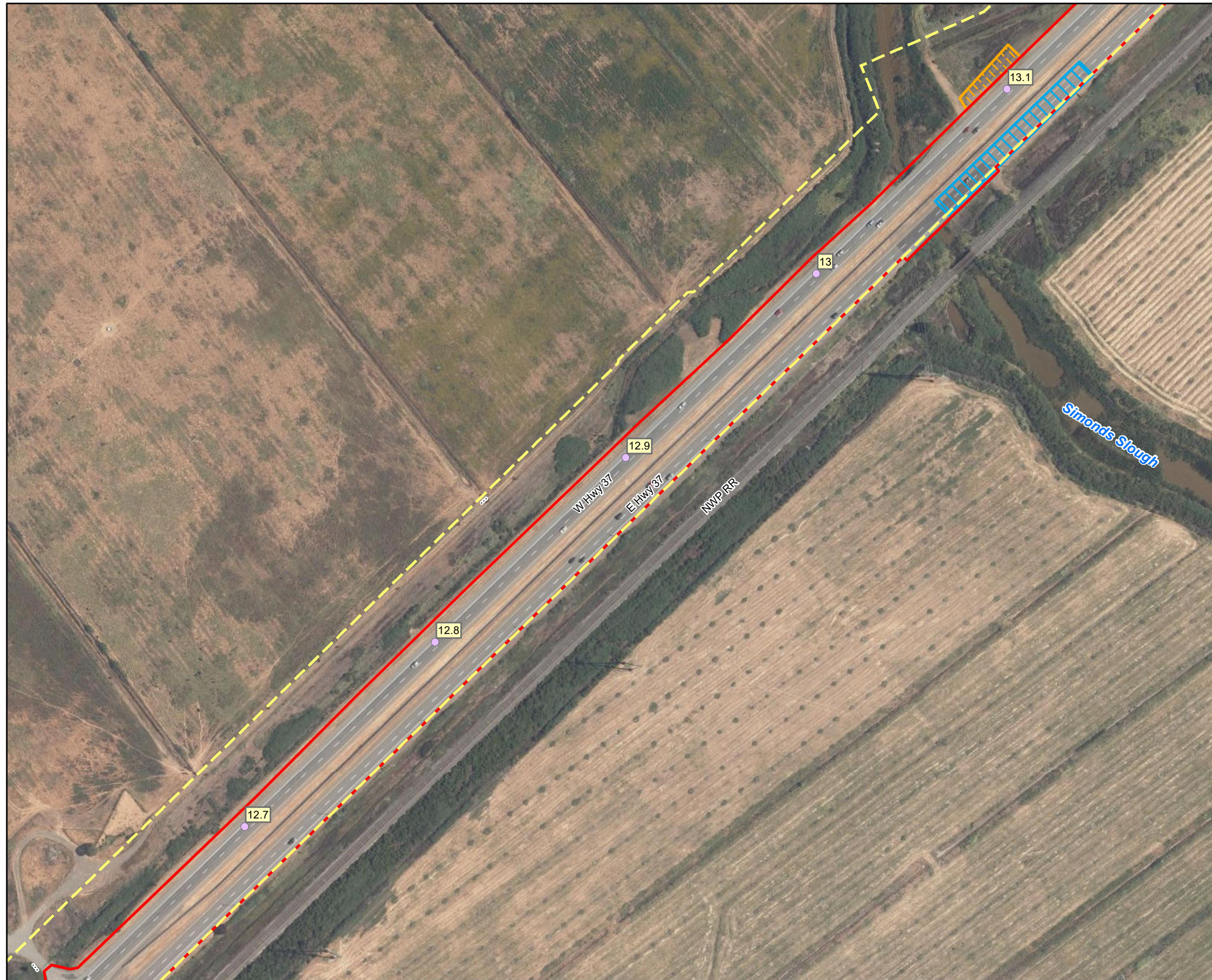




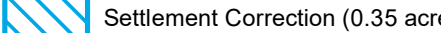


FIGURE 1-3
Map 3 of 8
Project Limits
 SR 37 CAPM Pavement Preservation
 EA 04-2K740, MRN-37 PM-R11.2/14.6
 Marin County, California



LEGEND

-  Post Mile
-  Caltrans Right of Way
-  Work Area (51 acres)
-  Staging Area (1.71 acres)
-  Settlement Correction (0.35 acre)

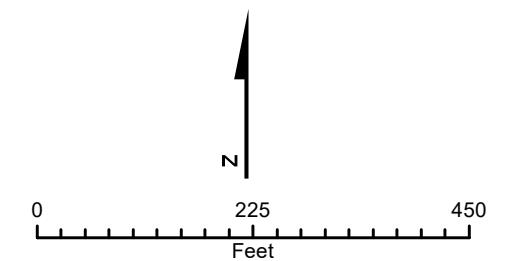
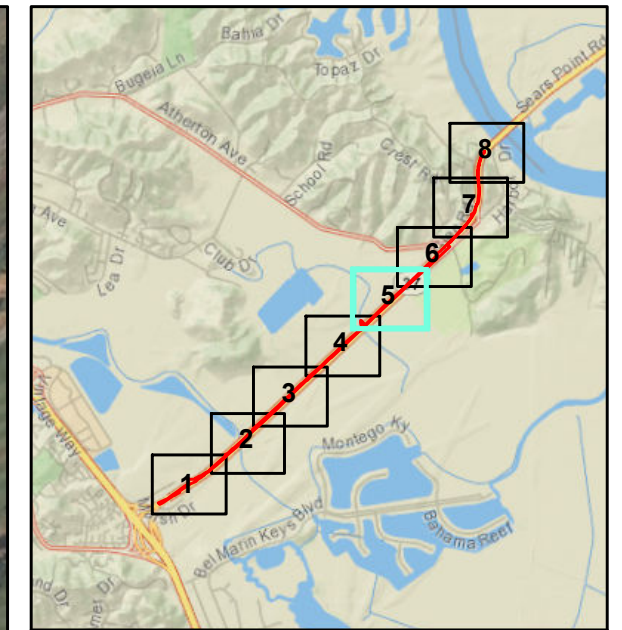
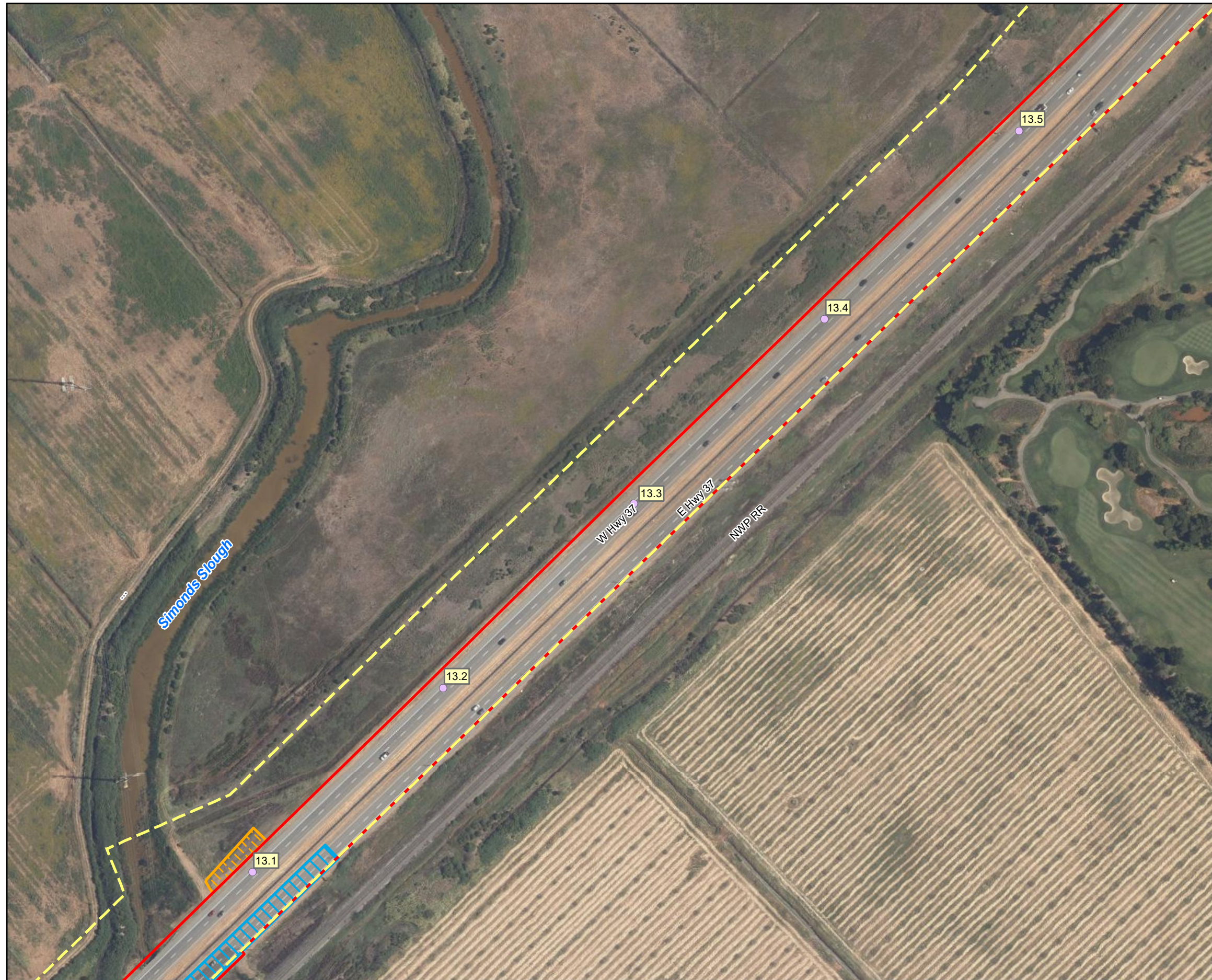


FIGURE 1-3
Map 4 of 8
Project Limits

SR 37 CAPM Pavement Preservation
 EA 04-2K740, MRN-37 PM-R11.2/14.6
 Marin County, California





- LEGEND**
- Post Mile
 - Caltrans Right of Way
 - Work Area (51 acres)
 - Staging Area (1.71 acres)
 - Settlement Correction (0.35 acre)

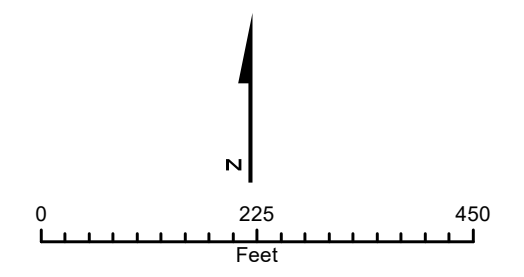
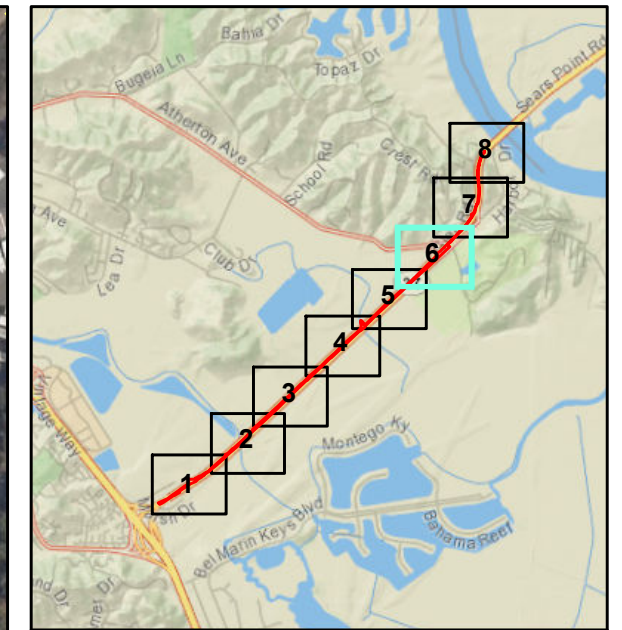
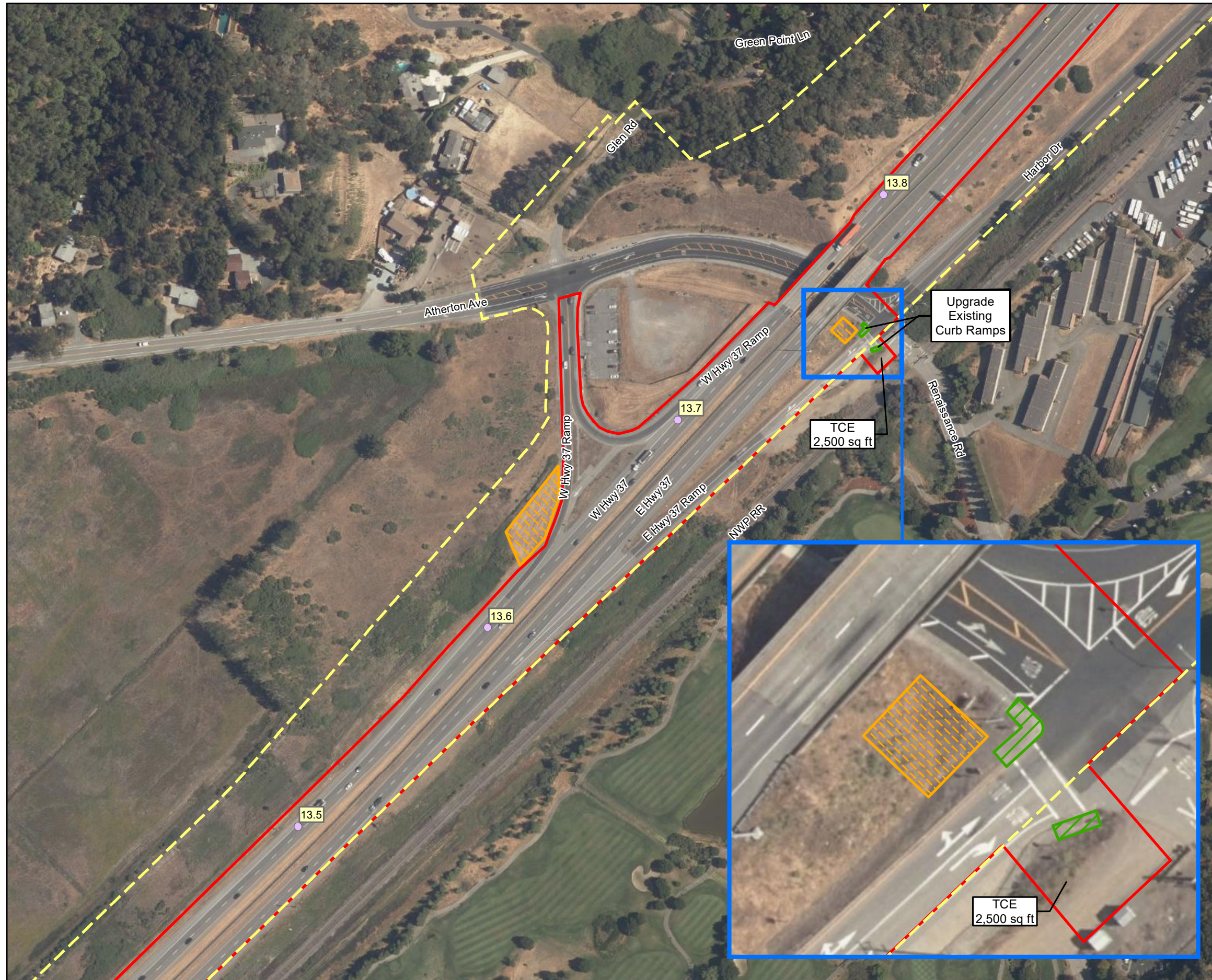


FIGURE 1-3
Map 5 of 8
Project Limits
 SR 37 CAPM Pavement Preservation
 EA 04-2K740, MRN-37 PM-R11.2/14.6
 Marin County, California





- LEGEND**
- Post Mile
 - Caltrans Right of Way
 - Work Area (51 acres)
 - Staging Area (1.71 acres)
 - Curb Ramp Upgrades (0.01 acre)

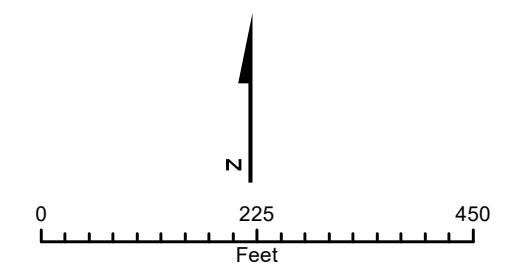
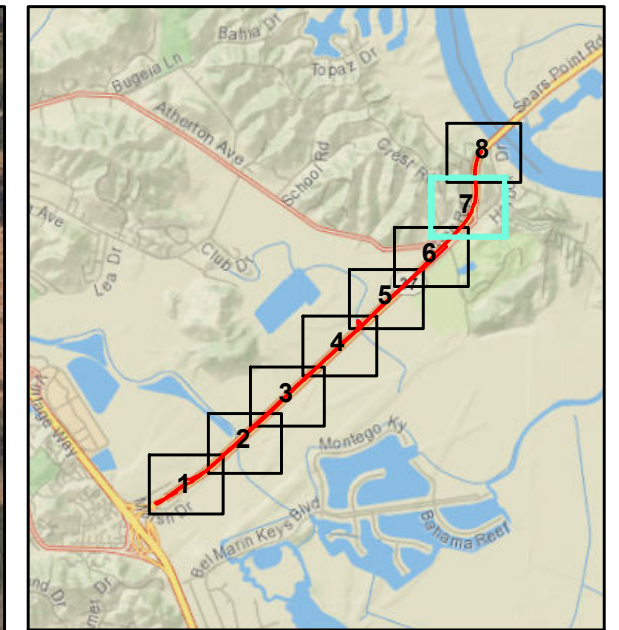
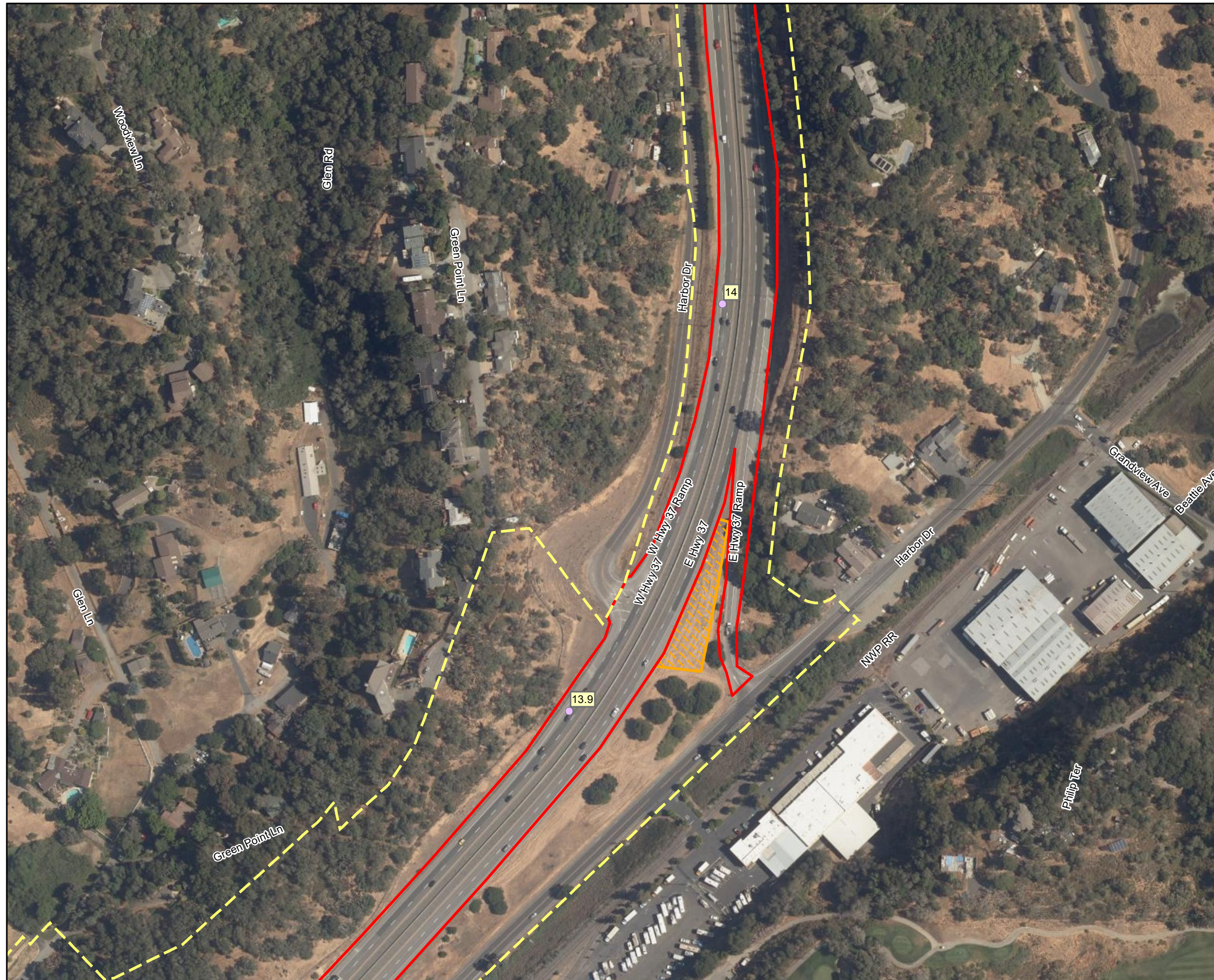



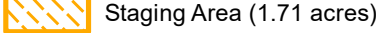


FIGURE 1-3
Map 6 of 8
Project Limits
 SR 37 CAPM Pavement Preservation
 EA 04-2K740, MRN-37 PM-R11.2/14.6
 Marin County, California





LEGEND

-  Post Mile
-  Caltrans Right of Way
-  Work Area (51 acres)
-  Staging Area (1.71 acres)

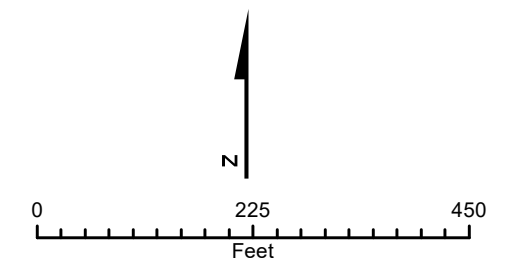
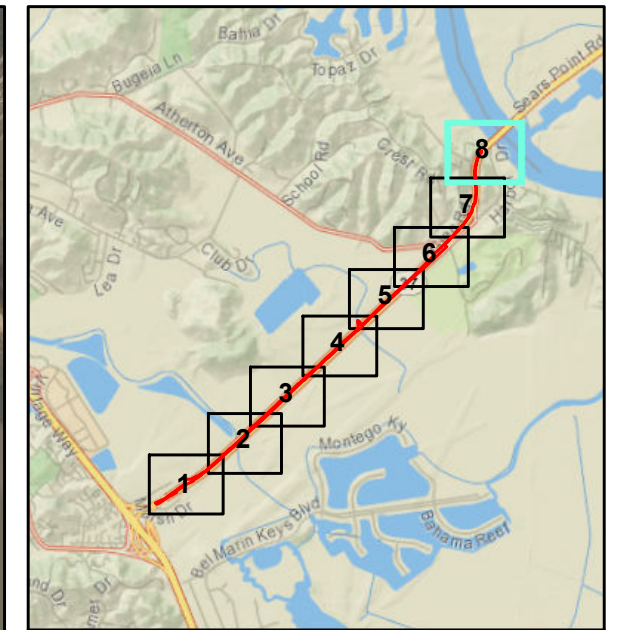


FIGURE 1-3
Map 7 of 8
Project Limits
 SR 37 CAPM Pavement Preservation
 EA 04-2K740, MRN-37 PM-R11.2/14.6
 Marin County, California



LEGEND

- Post Mile
- - - Caltrans Right of Way
- Work Area (51 acres)

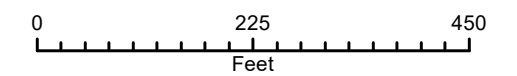


FIGURE 1-3
Map 8 of 8
Project Limits
 SR 37 CAPM Pavement Preservation
 EA 04-2K740, MRN-37 PM-R11.2/14.6
 Marin County, California

Chapter 2 Project Description

2.1 Introduction

The Project includes resurfacing and repairing the existing AC pavement; injecting polyurethane foam below roadway to address settlement correction; replacing traffic loop detectors, and AC dikes; upgrading concrete barriers, guard rails, and curb ramps; installing enhanced wet/night visibility striping; adjusting and cleaning drain inlets; and providing vegetation control under guardrails and three-beam barriers.

The Project would not include shoulder widening. No work would take place on bridges, except for connecting new guardrails to existing bridge rail. No bridge approach slabs would be replaced at any of the waterways or overcrossings. Tree removal is not expected.

2.2 Project Components

This section discusses Project components that would be constructed as part of the Project. Figure 1-3 contains the locations of project components.

2.2.1 Pavement Resurfacing and Repair

Pavement resurfacing and repair would occur on the mainline (roadway), shoulders, and on-off ramps within the Project limits. Prior to mainline overlay of the existing AC pavement, a field review would be conducted to locate specific areas of severe distress where there is rutting greater than 0.25 inch deep and/or loose and settling pavement. Areas of severe, localized, distressed, AC pavement (minimum of 6 feet wide) would be dug out and repaired with hot-mix asphalt. Type A (HMA-A) would be used to the bottom of the existing AC layer or up to a maximum 6 inches in depth (whichever is less). Pavement resurfacing and repair work is proposed to occur at the below-ramp locations within the Project limits:

- Hannah Ranch Road to the westbound SR 37 on-ramp
- Eastbound SR 37 to Marsh Drive off-ramp
- Westbound SR 37 to the Hanna Ranch Road off-ramp
- Eastbound SR 37 to the Harbor Drive off-ramp
- Harbor Drive to the eastbound SR 37 on-ramp
- Harbor Drive to the westbound SR 37 on-ramp
- Westbound SR 37 to the Harbor Drive off-ramp
- Marsh Drive to eastbound SR 37 on-ramp

- Westbound SR 37 to the Atherton Avenue off-ramp
- Atherton Avenue to the westbound 37 on-ramp

Pavement resurfacing and repair of the mainline, shoulders, and ramps would include cold-planing of 0.25 foot of existing pavement from edge-of-pavement to edge-of-pavement, then paving with 0.15 foot of rubberized hot-mix asphalt gap, graded, and overlaying with 0.1 foot of open-graded friction course, rubberized, hot-mix asphalt from edge-of-pavement to edge-of-pavement. The paving profile would not be raised as a result of this paving operation. The existing cross slopes and highway crown of the roadway would be maintained.

2.2.2 Settlement Correction

Settlement on the approach embankment at PM 13.04 has caused an uneven ride on and off the culvert in the eastbound direction of SR 37 at Simonds Slough (Bridge No. 27-0012). The roadway settlement is limited to the two eastbound lanes, including the median and the shoulder of SR 37. This settlement is along a 400-foot-long section of the roadway.

The Project proposes to correct this settlement at the approach embankment by injecting polyurethane foam below the roadway section to improve the sub-grade conditions and level the uneven driving surface of the two eastbound lanes of SR 37. The polyurethane foam injection area would begin on the east side of the box culvert and extend 400 feet to the east. The area would contain about 900 injection locations and would be approximately 400 feet long by 38 feet wide, totaling approximately 15,200 square feet. Each foam injection location would have two injection tubes at depths of 4 and 8 feet. The number of injection points and spacing may vary depending on the actual settlement of the roadway.

The depth of the foam injection would be based on penetrometer testing performed by the contractor prior to injecting the foam. A cone penetrometer test was conducted approximately 100 feet east of the Simonds Slough in 2020, indicating that there are approximately 15 feet of fill over a 65-foot-thick layer of bay mud. The roadway may require grinding and overlay after the polyurethane foam injection is completed.

2.2.3 Guard Rails and Thrie Beam Barriers

The Project would include replacing metal beam guardrail (MBGR) with Midwest Guardrail Systems (MGS) within the Project limits. Because MGS is slightly larger than the existing MBGR, it would be placed approximately 4 inches further from the highway. New excavation pits for the MGS wood posts would be 3.5 feet deep.

Guardrail and thrie-beam barrier connections to structures and all end treatments would be upgraded. Transition railing Type WB-31 would be installed for bridge structure barriers, and anchor assembly Type SFT would be installed for guardrail trailing ends. “L-1” markers at guardrail approach ends would be installed where applicable.

Two sections of guardrail (135 feet and 142 feet long) that connect the bridge structure at the Highway 101 south connector would be replaced with new, single, thrie-beam barriers. To connect new MGS and the new thrie-beam barrier sections to bridges, concrete barrier transitions would also be constructed at the bridges ends.

The Project would incorporate vegetation control under new MGS, and new and existing thrie-beam barriers, by adding a concrete slab with proposed dimensions of 80 inches wide and 2 inches thick along the full length of the guardrails and thrie-beam barriers. The 80-inch-wide slabs would provide 36 inches of vegetation control on each side of 8-inch-wide posts. The total vegetation control area created by the concrete slabs would be 2.16 acres for the Project.

2.2.4 Curb Ramps

Two curb ramps near PM 13.8 at the eastbound SR 37 Atherton Avenue offramp would be upgraded to current Americans with Disabilities Act (ADA) standards. The existing curb ramps would be replaced with new ones that have a lesser ramp slope and possibly a larger landing area, in compliance with ADA requirements. They would not exceed the dimensions of the existing sidewalks.

2.2.5 Additional Items

The following additional Project activities would occur during construction:

- Apply tack coat to all vertical surfaces of existing AC pavement before back filling with hot-mix asphalt.
- Remove existing concrete barrier in the median between PM 13.78 and 14.47 and replace them with Type 60M concrete barrier.
- Replace all AC dikes within the Project limits.
- Clean all clogged drainage inlets (DIs) and boxes impacted by grinding and repaving work.
- Replace existing traffic loop detectors.

- Install enhanced wet/night visibility striping.
- Maintain existing cross slopes and highway crown.

2.3 Construction Methodology

This section discusses how construction of the proposed Project would occur.

2.3.1 Construction Staging

Staging for this Project would occur adjacent to SR 37 in paved and unpaved areas within the Project limits (Figure 1-3, Maps 1 through 8). Staging areas would be used for equipment storage and stockpiling of materials.

2.3.2 Traffic Management

During settlement correction, loop installation, and paving operations, single-lane closures would be implemented along the roadway. On-ramps and off-ramps would require either full or partial closures during paving operations. Closure of highway shoulders would be required during most construction activities, such as dike replacement, MGS installation, and DI work.

No detours or signalized traffic control are anticipated. Flaggers would be used at the curb ramp location work (at eastbound SR 37 Atherton off-ramp near PM 13.8). It is anticipated that changeable message signs would be used for the remainder of construction to control traffic.

Night work is anticipated for paving, striping, and settlement correction work. Weekend work could potentially occur.

2.3.3 Utilities

Utility conflicts are not anticipated. Utility verification and identification would be conducted during later Project phases. The only anticipated digging would be at the curb ramp replacements where potential utility conflicts may arise. If needed, Caltrans would coordinate with the appropriate utility provider during later Project phases.

2.3.4 Construction Equipment

Equipment used for the Project would include, but not be limited to, backhoes, pavement saws, drills, injector machines, flatbed trucks, compressor, water trucks, concrete mixer trucks, dump trucks, compaction equipment, demolition hammers,

pavement grinder, tack coat truck (sprayer), AC paver, rollers, striping equipment, dike paver, concrete slipform paving equipment, and guardrail pile driver.

2.3.5 Construction Schedule

Construction is anticipated to begin in 2024 and would last approximately 5 months. Some components of the work, such as settlement correction, concrete barrier work, and curb ramps, can be done simultaneously. The remainder of the work would typically occur in the following sequence: dig-outs, cold plane, overlay, AC dikes, MGS and thrie-beam barrier, vegetation control, striping and loop detectors, and DI cleaning. Striping and loop detector installation would be conducted following paving.

2.3.6 Right of Way Requirements

A temporary construction easement (TCE) of approximately 2,500 square feet (0.057 acre) would be required at one location at the eastbound Atherton Avenue off-ramp for construction of a curb ramp. All other project work is anticipated to be within the existing right of way, not requiring TCEs.

All relocation services and benefits are administered without regard to race, color, national origin, persons with disabilities, religion, age, or sex. Appendix A includes Caltrans Title VI Policy Statement.

2.4 Project Features

Project features, which can include both design elements of the Project and standardized measures (such as best management practices [BMPs]) that are applied to all or most Caltrans projects, and measures included in the standard plans and specifications, or as standard special provisions, are integral to the Project. Such Project features have been considered prior to any significance determinations. These Project features are detailed in Chapter 3 and included in Appendix B.

2.5 Permits and Approvals Needed

Table 2-1 lists the permits, licenses, agreements, and certifications that are anticipated to be required for Project construction.

Table 2-1. Required Permits

Agency	Permit	Description
U.S. Fish and Wildlife Service	Letter of Concurrence	Pending
National Marine Fisheries Service	Letter of Concurrence	Pending

Chapter 3 California Environmental Quality Act Evaluation

The following discussions evaluate potential environmental impacts related to the CEQA checklist to comply with State CEQA Guidelines (Title 14 California Code of Regulations, Division 6, Chapter 3, Section 15091). The environmental analysis considers potential impacts of the proposed Project, as detailed in Chapter 2.

3.1 Environmental Factors Potentially Affected

As part of the scoping and environmental analysis carried out for the proposed Project, the following environmental issues were considered, but no impacts were identified: agricultural and forestry, cultural resources, land use and planning, mineral resources, population and housing, public services, recreation, and tribal cultural resources. The environmental factors checked below would be potentially affected by this Project. Further analysis of these environmental factors is included in the following chapter.

X	Aesthetics		Agriculture and Forest Resources	X	Air Quality
X	Biological Resources		Cultural Resources	X	Energy
X	Geology/Soils	X	Greenhouse Gas Emissions	X	Hazards and Hazardous Materials
X	Hydrology/Water Quality		Land Use/Planning		Mineral Resources
X	Noise		Population/Housing		Public Services
	Recreation	X	Transportation/Traffic		Tribal Cultural Resources
X	Utilities/Service Systems	X	Wildfire	X	Mandatory Findings of Significance

3.2 Determination

On the basis of this initial evaluation:

X	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	
	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	
	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	
Signature:		Date:
Printed Name: Lindsay Vivian		For:

3.3 CEQA Environmental Checklist

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

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

Sections 3.3.1 through 3.3.21 of this section presents the CEQA Determinations under Appendix G of the CEQA Guidelines. The CEQA determination depend on the level of potential environmental impact that would result from the Project. The level of significance determinations are defined as follows:

- **No Impact:** Indicates no physical environmental change from existing conditions.
- **Less than Significant Impact:** Indicates the potential for an environmental impact that is not significant with or without the implementation of avoidance and minimization measures.
- **Less than Significant Impact with Mitigation Incorporated:** Indicates the potential for a significant impact that would be mitigated with the implementation of a mitigation measure to a level of less than significance.
- **Potentially Significant Impact:** Indicates the potential for significant and unavoidable environmental impact.

3.3.1 Aesthetics

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

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

CEQA SIGNIFICANCE DETERMINATIONS FOR AESTHETICS

A visual impact assessment (VIA) was completed for the Project (Caltrans 2021a). The VIA was prepared in accordance with the guidelines in the Federal Highway Administration’s *Visual Impact Assessments for Highway Projects* (FHWA 1981). SR 37 is eligible for State Scenic Highway designation throughout the Project limits.

SR 37 within the Project limits is a conventional highway, with two lanes of travel in each direction. The visual environment within and adjacent to the Project limits in its southwestern section, from U.S. 101 to approximately PM 13.5, is agricultural or undeveloped, with the highway divided by a roughly 20-foot-wide, unpaved, center median and MBGR. Fields and farm-related facilities dominate, with the nearest residences at Bel Marin Keys roughly 0.25 mile to the southeast. Deer Island Preserve is within view and a short distance to the north. High-voltage transmission lines and towers parallel the highway and wooden utility poles, with overhead wires running immediately adjacent to the unpaved shoulder. Paved shoulders are of less than standard widths. From PM 13.5 to the Petaluma River Bridge, the landscape changes. The highway passes a golf course, with commercial development near the highway in some places and residences in the nearby hills beyond. In this area, the center median widens, with considerable vertical separation. As the highway nears the Petaluma River, most development is beyond view and the surrounding landscape becomes highly scenic, with wooded upslope hills on each side. Toward the project limits at PM 14.4, the visual landscape opens, revealing expansive views from the highway and the elevated Petaluma River Bridge.

a, b) No Impact

The Project would not have a substantial, adverse effect on scenic vistas, or damage scenic resources. The Project would be compatible with the existing visual character and quality of the corridor. The Project would not impact or degrade the existing visual character or quality of the Project limits or its surroundings.

The Project would not adversely affect any scenic resource identified as requiring special consideration such as a rock outcropping, important tree grouping, historic properties, etc., as defined by CEQA status or guidelines, or Caltrans policy. Existing vistas would be unaltered. The Project elements should not affect the appearance of the highway corridor and would be visually consistent with the character of the corridor and surrounding area.

c) Less than Significant Impact

The Project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. Temporary visual impacts from construction of the Project would not be considered substantial. Specific impacts to scenic characteristics along the Project corridor would be reduced with implementation of avoidance and minimization measures (AMMs) (presented below), which would minimize visual changes that could occur as part of the Project. Upon completion of work, the appearance of the highway corridor within the Project limits would be largely unchanged.

d) Less than Significant Impact

The Project would not create a new source of substantial light or glare. Day and nighttime construction activities could temporarily add new sources of light and glare along the Project corridor. These visual impacts would be minimized through implementation of AMM AES-5, thereby reducing the impact to less than significant.

Avoidance and Minimization Measures

Caltrans would incorporate the following AMMs into the Project to offset or avoid potential impacts to aesthetics.

AMM AES-1: Minimize Construction Appearance. Visual impacts during construction will be reduced by measures such as storing unsightly material and equipment in staging areas beyond direct view of the motoring public to the extent practicable.

AMM AES-2: Avoid Impacts to Vegetation. Staging areas will not be allowed in any area where the removal of trees or native vegetation will be required. Avoid impacts to existing vegetation to the greatest extent practicable.

AMM AES-3: Revegetation of Disturbed Areas. Disturbed soils will be revegetated by applying erosion control seeding to all areas of disturbed soil.

AMM AES-4: Avoid Impacts to Existing Trees and Shrubs. Impacts to existing trees and shrubs, including associated tree roots, will be avoided where feasible. The Caltrans Office of Landscape Architecture and Office of Biological Sciences and Permits will identify specific locations and BMPs during later Project phases, and include appropriate information in the plans and specifications.

AMM AES-5: Directional Lighting. Use of directional lighting and/or shielding for any night work will be implemented to reduce light trespass affecting motorists.

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

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

CEQA SIGNIFICANCE DETERMINATIONS FOR AGRICULTURE AND FOREST RESOURCES

a) No Impact

Within the Project limits, land adjacent to SR 37 is designated developed/utility/built-up land, grazing land, farmland of local importance, and other land by the Farmland Mapping and Monitoring Program (California Department of Conservation 2022). Temporary impacts to farmland of local importance could occur during construction in areas adjacent to the roadway and within staging areas.

The Project would not convert prime farmland, unique farmland, or farmland of statewide importance because no such farmlands are within the Project limits. Therefore, no impact would occur.

b-e) No Impact

There are no Williamson Act lands within the Project limits. The Project would not conflict with existing zoning for agriculture use or convert Williamson Act lands to non-agricultural uses; therefore, there would be no impact.

No timber or forest lands are in the Project limits or Project vicinity; so, the Project would not convert forest land or conflict with existing timberland zoning. Therefore, there would be no impact to forests or timberlands.

According to maps prepared pursuant to the Farmland Mapping and Monitoring Program, temporary impacts to land designated as farmland of local importance could occur during construction. However, the Project would not convert farmlands to non-agricultural use; therefore, no impact would occur.

3.3.3 Air Quality

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

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

CEQA SIGNIFICANCE DETERMINATIONS FOR AIR QUALITY

a, c, d) No Impact

The Project falls under “pavement resurfacing and/or rehabilitation” activities and is, therefore, exempt from air quality conformity determination under 40 *Code of Federal Regulations* 93.126. An air quality study is not required (Caltrans 2019). Construction activities would not be in conflict with an air quality plan or generate emissions resulting in substantial pollutant concentrations or excessive odors. There would be no impact.

b) Less than Significant Impact

The Project would be required to comply with Caltrans Standard Specification 14-9, Air Quality, which requires compliance with air-pollution control rules, regulations, ordinances, and statutes that apply in the Project area. Construction air pollutants are expected to be minimal to negligible and short term. Potential impacts to air quality, including violation of air quality standards, criteria pollutants, exposure of sensitive receptors to pollutants, and creation of odors, are not anticipated based on the scope of the proposed Project. Project Feature AQ-1 would help minimize impacts from fugitive dust.

Project Feature

Caltrans would incorporate a standard measure into the Project to offset or avoid potential impacts to air quality. This feature is described in the following paragraph.

Project Feature AQ-1: Control Measures for Construction Emissions of Fugitive Dust. Dust control measures would be implemented to minimize airborne dust and soil particles generated from construction. For disturbed soil areas, the use of tackifier to control dust emissions would be included in the construction contract. Any material stockpiles would be watered, sprayed with tackifier, or covered to minimize dust production and wind erosion.

3.3.4 Biological Resources

Would the project:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR BIOLOGICAL RESOURCES

A natural environment study (NES) was prepared for the Project to evaluate the effects of this Project on biological resources, including sensitive plant and wildlife species (Caltrans 2022a). This section summarizes the findings of the study.

The biological study area (BSA) includes the Project limits along SR 37, with the exception of an additional buffer area around sensitive resources. A 200-foot-wide buffer (both upstream and downstream) was included in the Simonds Slough area; a 700-foot-wide buffer was included (upstream and downstream) of Novato Creek; and a 700-foot-wide buffer was included at the eastern terminus of the Project to specifically incorporate tidal wetland habitat along the Petaluma River. The BSA encompasses approximately 88 acres.

The BSA is predominantly made up of a paved roadway and surrounding road shoulder, dominated by annual grasslands and non-native Himalayan blackberry (*Rubus armeniacus*). Most of the landcover that is not hardscaped is highly disturbed and annually mowed, except for Novato Creek, Simonds Slough, and their respective

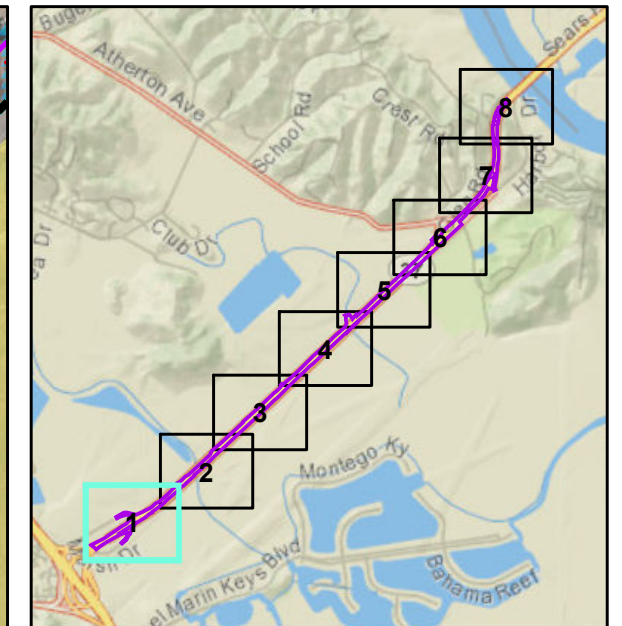
surrounding wetlands. SR 37 spans Novato Creek at PM 11.96 and Simonds Slough at PM 13.04. Novato Creek is a perennial water that is hydrologically influenced by, and drains into, San Pablo Bay. Simonds Slough is a freshwater system that drains stormwater downstream over a levee and into Novato Creek. A tide gate originally controlled the flow of Simonds Slough, but the tide gate became ineffective, and a pump was subsequently installed to pump stormwater out of Simonds Slough, over the levee and into Novato Creek, and downstream into San Pablo Bay. Simonds Slough does not receive tidal waters from Novato Creek or San Pablo Bay. The pump and tide gate are located outside of the BSA approximately 0.5 mile downstream and south of SR 37.

The Project limits consists of several landcover types. The most dominant of these is the road surface and surrounding grasslands, making up 97 percent of the Project limits (GGNPC 2021). Other vegetation and landcover types within the larger BSA include tidal wetland, open water, herbaceous, freshwater wetland, developed, native shrub, native forest, shrub fragment, non-native shrub, tidal channels, and mudflats.

Biological Studies

As part of the NES, databases were used to evaluate potential impacts that could occur to sensitive biological resources as a result of the Project. Database searches included the California Natural Diversity Database (CNDDDB) (CDFW 2021); species list and critical habitat from the U.S. Fish and Wildlife Service (USFWS) (USFWS 2021a), a species list from NOAA Fisheries (NOAA Fisheries 2021); and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2021). A complete list of species from the database searches is provided in Appendix B. In addition to database queries, reconnaissance field visits were conducted, with a focus on fish, bats, and California red-legged frog habitat.

Data layers of wetlands and waters mapped from the Marin Fine Scale Vegetation Map (GGNPC 2021) were used to estimate areas of potentially jurisdictional aquatic resources. Figure 3-1 provides the locations of mapped data layers of wetlands and waters within the Project area. The USFWS National Wetlands Inventory database was reviewed for wetlands analysis and potential habitat for special-status aquatic species analysis (USFWS 2021b). Climatic information was obtained from the Western Regional Climate Center (2021) for wetlands analysis.



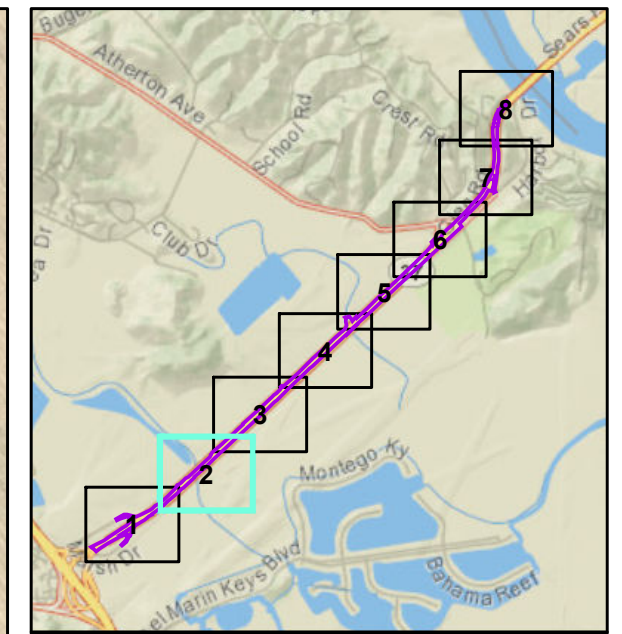
LEGEND

- Post Mile
- - - Caltrans Right of Way
- - - Biological Study Area (BSA)
- Work Area (51 acres)
- ▨ Staging Area (1.71 acres)

Forest Lifeform in '18

- ▨ Barren
- Developed
- Evergreen Hardwood
- ▨ Forest Fragment
- ▨ Freshwater Wetland
- Herbaceous
- Native Shrub
- ▨ Non-native Shrub
- ▨ Riparian Shrub
- ▨ Water

FIGURE 3-1
Map 1 of 8
Wetlands and Waters
 SR 37 CAPM Pavement Preservation
 EA 04-2K740, MRN-37 PM-R11.2/14.6
 Marin County, California



LEGEND

- Post Mile
- - - Caltrans Right of Way
- ▭ Biological Study Area (BSA)
- ▭ Work Area (51 acres)

Forest Lifeform in '18

- ▭ Developed
- ▭ Freshwater Wetland
- ▭ Herbageous
- ▭ Hayfield
- ▭ Native Shrub
- ▭ Non-native Shrub
- ▭ Tidal Wetland
- ▭ Water

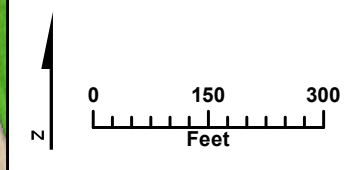
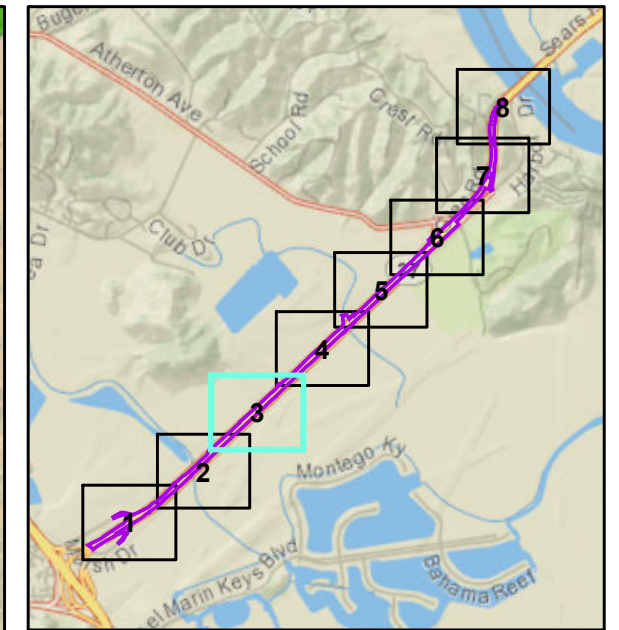


FIGURE 3-1
Map 2 of 8
Wetlands and Waters
 SR 37 CAPM Pavement Preservation
 EA 04-2K740, MRN-37 PM-R11.2/14.6
 Marin County, California



LEGEND

- Post Mile
- - - Caltrans Right of Way
- - - Biological Study Area (BSA)
- Work Area (51 acres)
- Forest Lifeform in '18**
- Developed
- Evergreen Hardwood
- Freshwater Wetland
- Herbaceous
- Hayfield
- Native Shrub
- Non-native Forest
- Non-native Shrub
- Shrub Fragment
- Tidal Wetland
- Water

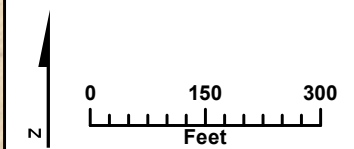
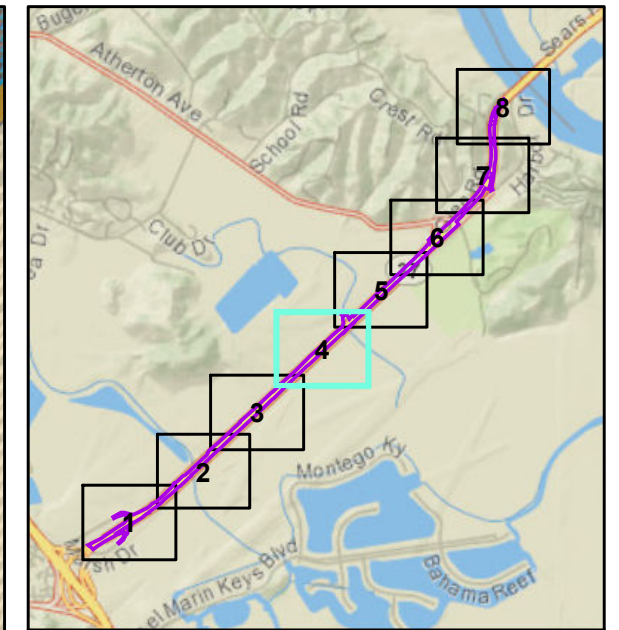


FIGURE 3-1
Map 3 of 8
Wetlands and Waters
 SR 37 CAPM Pavement Preservation
 EA 04-2K740, MRN-37 PM-R11.2/14.6
 Marin County, California



LEGEND

- Post Mile
- Caltrans Right of Way
- Biological Study Area (BSA)
- Work Area (51 acres)
- Staging Area (1.71 acres)
- Forest Lifeform in '18**
- Developed
- Freshwater Wetland
- Herbaceous
- Hayfield
- Native Shrub
- Non-native Forest
- Non-native Shrub
- Shrub Fragment
- Water

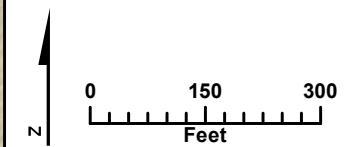
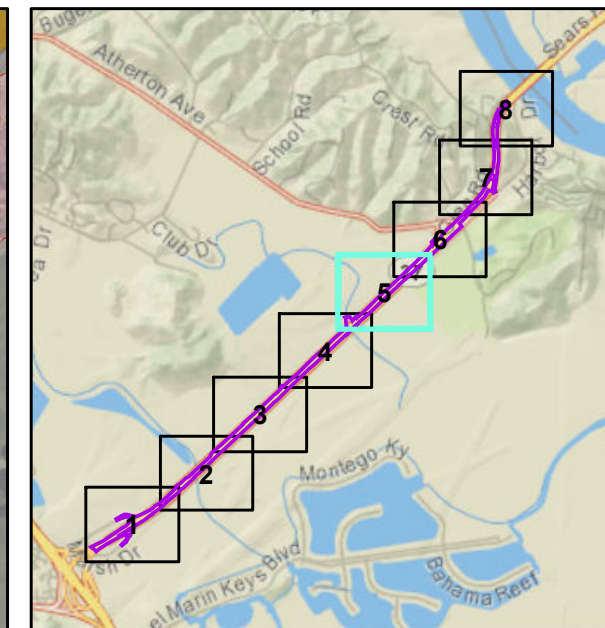


FIGURE 3-1
Map 4 of 8
Wetlands and Waters
 SR 37 CAPM Pavement Preservation
 EA 04-2K740, MRN-37 PM-R11.2/14.6
 Marin County, California



LEGEND

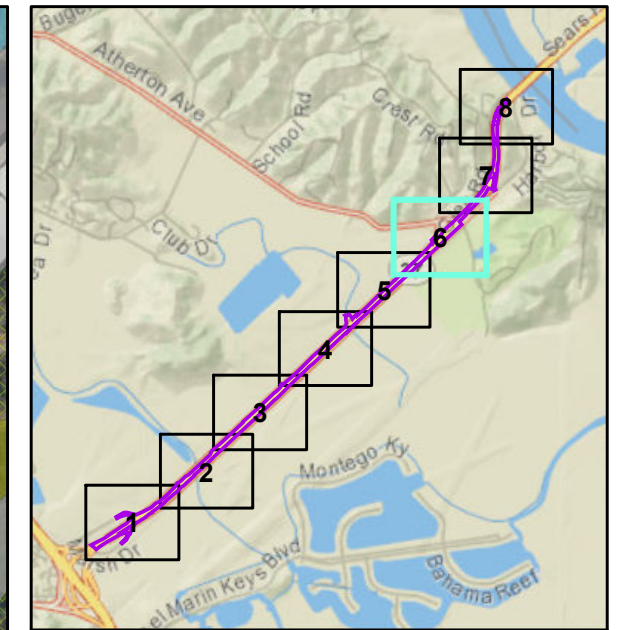
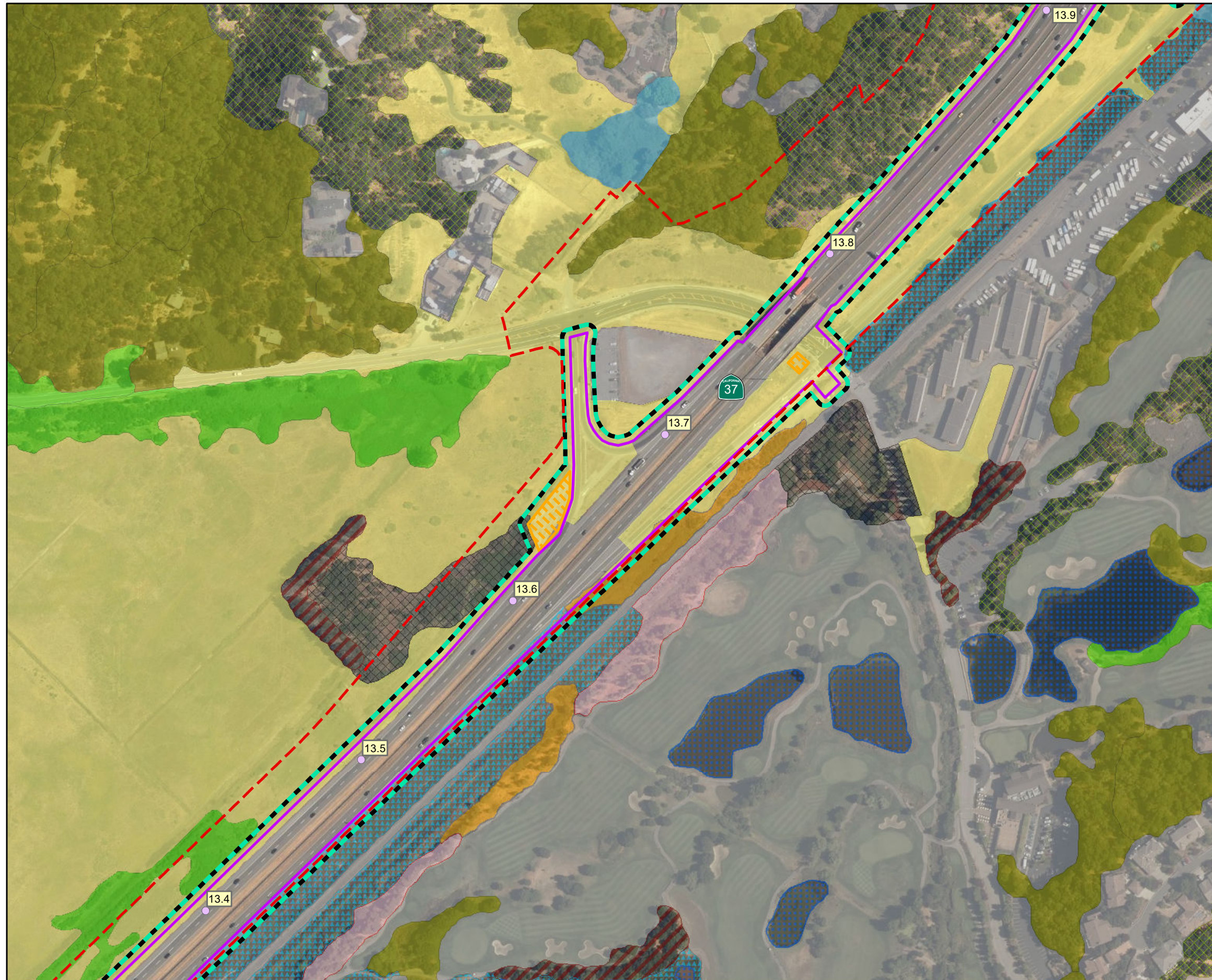
- Post Mile
- - - Caltrans Right of Way
- - - Biological Study Area (BSA)
- Work Area (51 acres)
- ▨ Staging Area (1.71 acres)

Forest Lifeform in '18

- Developed
- Evergreen Hardwood
- ▨ Forest Fragment
- ▨ Freshwater Wetland
- Herbaceous
- Hayfield
- Native Shrub
- Non-native Forest
- ▨ Non-native Shrub
- Riparian Shrub
- Shrub Fragment
- Water

0 150 300
Feet

FIGURE 3-1
Map 5 of 8
Wetlands and Waters
 SR 37 CAPM Pavement Preservation
 EA 04-2K740, MRN-37 PM-R11.2/14.6
 Marin County, California



LEGEND

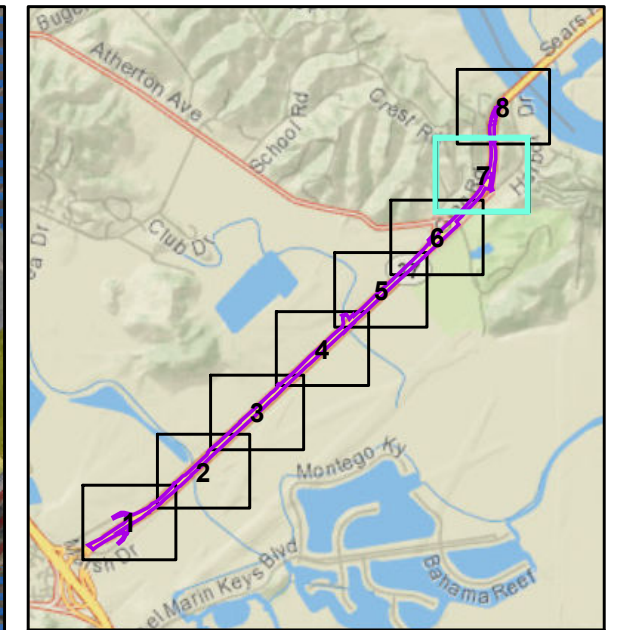
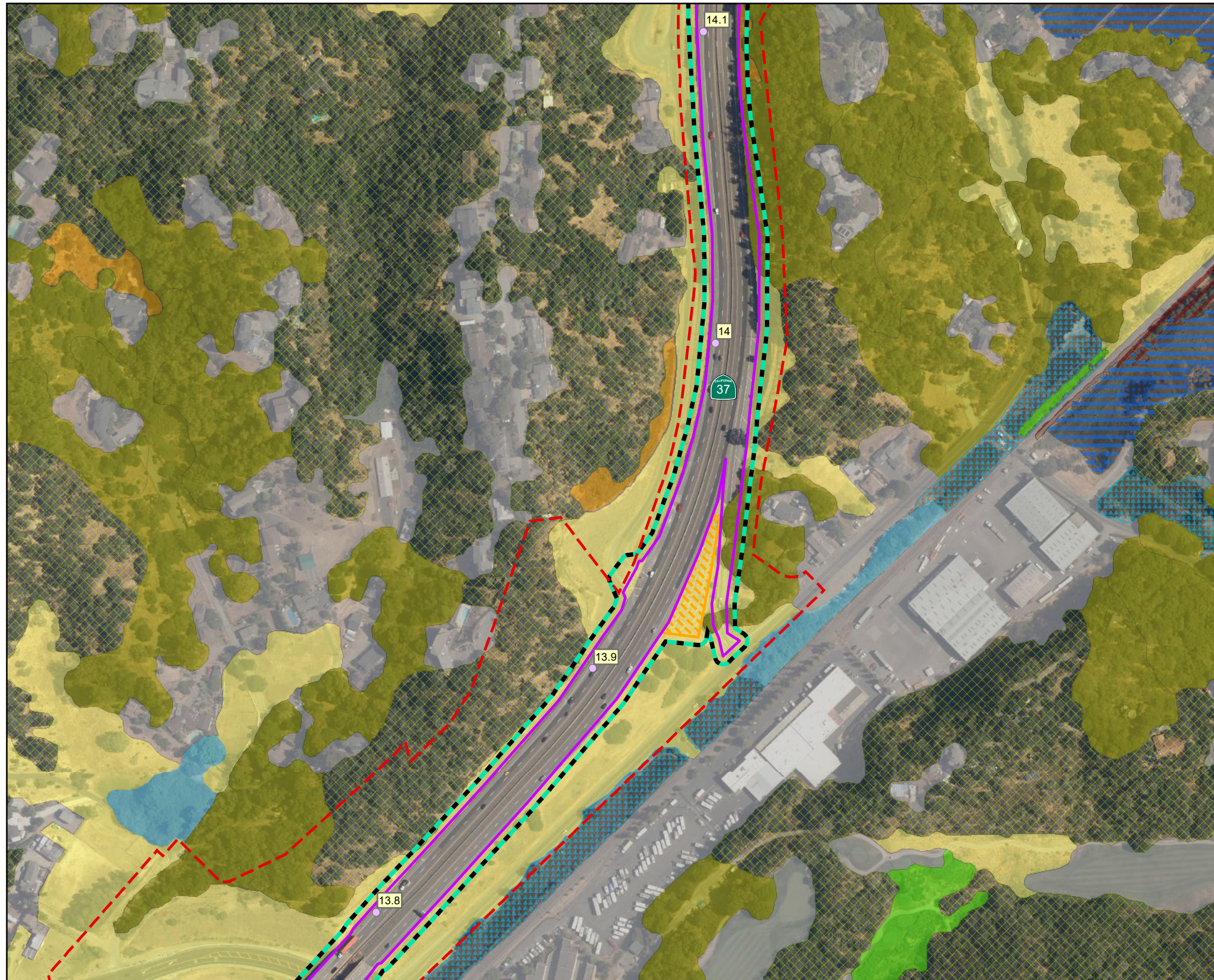
- Post Mile
- - - Caltrans Right of Way
- - - Biological Study Area (BSA)
- Work Area (51 acres)
- ▨ Staging Area (1.71 acres)

Forest Lifeform in '18

- ▨ Deciduous Hardwood
- ▨ Developed
- ▨ Evergreen Hardwood
- ▨ Forest Fragment
- ▨ Freshwater Wetland
- ▨ Herbaceous
- ▨ Native Shrub
- ▨ Non-native Forest
- ▨ Non-native Shrub
- ▨ Riparian Shrub
- ▨ Shrub Fragment
- ▨ Water

0 150 300
Feet

FIGURE 3-1
Map 6 of 8
Wetlands and Waters
 SR 37 CAPM Pavement Preservation
 EA 04-2K740, MRN-37 PM-R11.2/14.6
 Marin County, California



LEGEND

- Post Mile
- Caltrans Right of Way
- Biological Study Area (BSA)
- Work Area (51 acres)
- Staging Area (1.71 acres)
- Forest Lifeform in '18**
- Deciduous Hardwood
- Developed
- Evergreen Hardwood
- Forest Fragment
- Freshwater Wetland
- Herbaceous
- Native Shrub
- Riparian Shrub
- Shrub Fragment
- Tidal Wetland
- Water

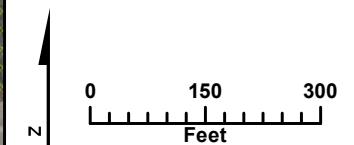
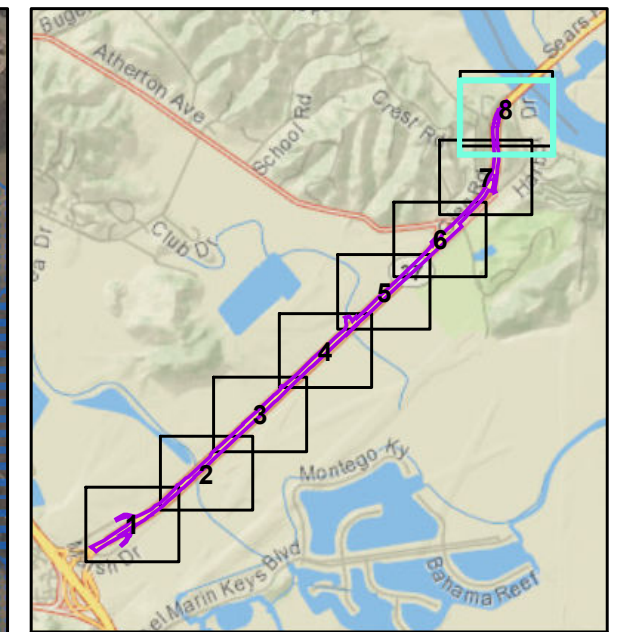
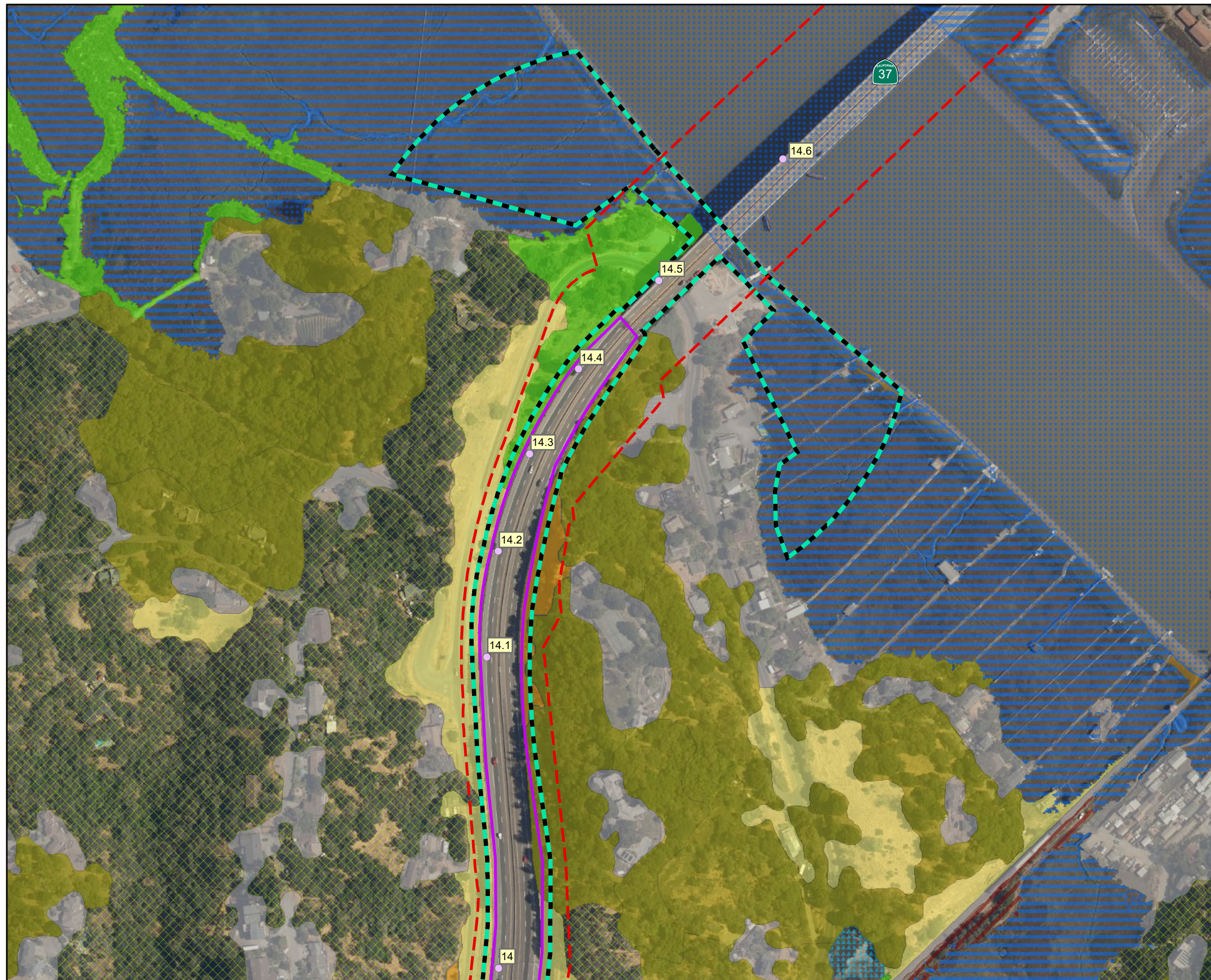


FIGURE 3-1
Map 7 of 8
Wetlands and Waters
 SR 37 CAPM Pavement Preservation
 EA 04-2K740, MRN-37 PM-R11.2/14.6
 Marin County, California



LEGEND

- Post Mile
- - - Caltrans Right of Way
- - - Biological Study Area (BSA)
- Work Area (51 acres)

Forest Lifeform in '18

- Channel
- Deciduous Hardwood
- Developed
- Evergreen Hardwood
- Forest Fragment
- Freshwater Wetland
- Herbaceous
- Mudflat
- Native Shrub
- Shrub Fragment
- Tidal Wetland
- Water

0 150 300
Feet

FIGURE 3-1
Map 8 of 8
Wetlands and Waters
 SR 37 CAPM Pavement Preservation
 EA 04-2K740, MRN-37 PM-R11.2/14.6
 Marin County, California

a) Less than Significant Impact

With implementation of Project features and AMMs identified below, the Project would have a less-than-significant adverse effect, either directly or through habitat modifications, on any identified candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW), USFWS, or NOAA Fisheries. General Project features that would reduce impacts to special-status species include BIO-3, Worker Environmental Awareness Training, and BIO-4 Mark Environmentally Sensitive Areas. Additional specific Project features are discussed in the subsections that follow.

Special-status species' habitat is present within Novato Creek, Simonds Slough, and the Petaluma River, as well as the adjacent salt marsh and wetland habitats in the vicinity of the Project work areas. Construction activities could result in increases in noise, which could adversely impact nesting bird species, particularly the California Ridgway's rail and the California black rail. However, these impacts will be avoided by implementing AMMs that establish work buffers and restrict work during the breeding season.

Special-status species potentially present within or adjacent to the BSA are discussed below and included in tabular format in Appendix C.

Plants

Soft salty bird's-beak: The Project would have no impact on soft salty bird's beak (*Chloropyron molle* ssp. *molle* [*Cordylanthus mollis* ssp. *mollis*]). Soft salty bird's-beak is a federally endangered, state rare, and California rare plant, ranked as 1B.2 (a plant that is rare, threatened, or endangered in California and elsewhere, and moderately threatened in California). The closest reported CNDDDB occurrences of soft salty bird's-beak are located along the Petaluma River, approximately 5 miles northeast of the BSA (CDFW 2021). The proposed Project would have no direct impacts on tidal wetland/salt marsh habitat. Therefore, there would be no direct impacts on the soft salty bird's-beak or its habitat.

Implementation of the following Project features would avoid impacts to salt marsh habitat: BIO-4: Mark Environmentally Sensitive Areas; BIO-8: Construction Site Management Practices; BIO-10: Restore Disturbed Area; BIO-14: Agency-Approved Biologist; and AMM WQ-1: Water Quality Best Management Practices (Section 3.3.10).

Point Reyes salty bird's-beak: The Project would have a less than significant impact on Point Reyes salty bird's beak (*Chloropyron maritimum* ssp. *palustre*). Point Reyes salty bird's beak has a California rare plant rank of 1B.2 (a plant that is rare, threatened, or endangered in California and elsewhere, and moderately threatened in California). The closest reported CNDDDB occurrence is more than 5 miles south of the BSA in brackish coastal marsh habitat near Gallinas Creek (CDFW 2021). However, because of the presence of tidal wetland habitat surrounding Novato Creek and the Petaluma River, there is potential for the BSA to support Point Reyes salty bird's-beak habitat.

The proposed Project would have no direct impacts to tidal wetland (salt marsh or brackish marsh) habitat. Therefore, there would be no direct impacts to the Point Reyes salty bird's-beak or its habitat.

Implementation of the following Project features would result in avoiding indirect impacts to Point Reyes salty bird's-beak. Implementation of the following features would specifically avoid impacts to salt marsh habitat: BIO-4: Mark Environmentally Sensitive Areas; BIO-8: Construction Site Management Practices; BIO-10: Restore Disturbed Area; BIO-14: Agency-Approved Biologist; and AMM WQ-1: Water Quality Best Management Practices .

Fish

Central California Coast (CCC) steelhead: The Project would have a less than significant impact on CCC steelhead (*Oncorhynchus mykiss*). The CCC Distinct Population Segment (DPS) of steelhead is listed as federally threatened. Two reported CNDDDB occurrences of CCC steelhead are within a 10-mile radius of the BSA (CDFW 2021); and CCC steelhead are known to occur in Novato Creek, although in limited numbers. Novato Creek does not provide spawning habitat and only provides migratory habitat. According to the *Coastal Multispecies Recovery Plan Volume IV, Central California Coast Steelhead* (NOAA Fisheries, 2016), Novato Creek was rated "poor" in the following key attributes: estuary, habitat complexity, hydrology, landscape patterns, passage/migration, riparian, sediment, sediment transport, velocity refuge, viability, and water quality. The number of fish that presently reside in the creek are unknown. It is assumed that the population of CCC steelhead in Novato Creek within the BSA is small, given the number of fish captured during previous relocation efforts during construction projects and the quality of habitat in Novato Creek within the BSA (NOAA Fisheries 2016).

CCC steelhead could occur within Novato Creek and Petaluma River within the BSA; however, there are no anticipated direct impacts to Novato Creek or the Petaluma River as a result of the Project. Due to the lack of an unimpeded hydrological connection to Novato Creek and San Pablo Bay, as well as inadequate habitat, CCC steelhead are presumed absent from Simonds Slough.

Implementation of the following Project features would result in avoiding impacts to CCC steelhead: BIO-4: Mark Environmentally Sensitive Areas; BIO-8: Construction Site Management Practices; BIO-10: Restore Disturbed Area; and AMM WQ-1: Water Quality Best Management Practices.

North American green sturgeon, southern (DPS): The Project would have no significant impact on green sturgeon (*Acipenser medirostris*). The North American green sturgeon southern DPS is listed as federally threatened. There are no reported CNDDDB occurrences of green sturgeon within 10 miles of the BSA (CDFW 2021). There is a very low likelihood that green sturgeon would be present in the BSA during construction activities. However, Novato Creek and Petaluma River are designated critical habitat for the species; therefore, there is some likelihood green sturgeon could occur in the BSA. Because of the lack of an unimpeded hydrological connection to Novato Creek and San Pablo Bay, as well as inadequate habitat, green sturgeon is presumed absent from Simonds Slough. The proposed Project would not directly impact Petaluma River, Novato Creek, or the bridge deck spanning Novato Creek. Therefore, there would be no direct effects to green sturgeon habitat.

Implementation of the following Project features would result in avoiding impacts to green sturgeon habitat: BIO-4: Mark Environmentally Sensitive Areas; BIO-8: Construction Site Management Practices; BIO-10: Restore Disturbed Areas; and AMM WQ-1: Water Quality Best Management Practices.

Longfin smelt: The Project would have no impact on longfin smelt (*Spirinchus thaleichthys*). The longfin smelt is listed as state threatened and is a federal candidate for listing. There are three reported CNDDDB occurrences of longfin smelt within 10 miles of the BSA (CDFW 2021). There are no reported CNDDDB occurrences of longfin smelt in Novato Creek or Petaluma River within the BSA; however, San Pablo Bay supports habitat for the species. Because of the relative location of Novato Creek and Petaluma River to San Pablo Bay, there is a possibility for fish to incidentally forage in these waterways, but there is no spawning habitat present. Although there is low potential to occur, longfin smelt could occur within the

BSA. Because of the lack of an unimpeded hydrological connection to Novato Creek and San Pablo Bay, longfin smelt are presumed absent from Simonds Slough. The proposed Project would not directly impact the Petaluma River, Novato Creek, or the bridge deck spanning over Novato Creek. Therefore, there would be no direct effects to longfin smelt habitat.

With the incorporation of Project features, including a stormwater pollution prevention plan (SWPPP), there are no anticipated direct or indirect impacts to longfin smelt habitat. Implementation of the following Project features would result in avoiding impacts to longfin smelt: BIO-4: Mark Environmentally Sensitive Areas; BIO-8: Construction Site Management Practices; BIO-10: Restore Disturbed Areas; and AMM WQ-1: Water Quality Best Management Practices.

Amphibians

California Red-Legged Frog: The Project would have a less than significant impact on the California red-legged frog (*Rana draytonii*). The California red-legged frog is federally listed as threatened and is also a state species of special concern (SSC). There is one reported CNDDDB occurrence of California red-legged frog within 1 mile of the BSA (CDFW 2021). However, this occurrence does not have a publicly identifiable location and is only recorded as within the entire Sears Point 7.5-quadrangle (CDFW 2021). The closest recorded occurrence with a specified location occurs more than 2 miles east of the eastern terminus of the BSA and across the Petaluma River within Sonoma County (CDFW 2021). This occurrence is 3.5 miles east of Simonds Slough, the only freshwater habitat within the BSA and the only area that could support California red-legged frog habitat. A California red-legged frog habitat assessment, focusing on Simonds Slough, was conducted in October 2021. The species has not specifically been observed within Simonds's Slough; however, due to the proximity of suitable dispersal and breeding habitat, there is a reasonable potential for it to occur within and immediately adjacent to the slough. Simonds Slough, within the project limits, is suitable breeding habitat for the California red-legged frog, and the surrounding uplands (within both the project limits and the BSA) is suitable upland refugia habitat.

The Project has potential to temporarily impact California red-legged frog upland refugia habitat. Parking of heavy equipment in the staging area northeast of the slough near MP 13.1 could cause a temporary loss of upland dispersal habitat. However, the staging area includes highly disturbed herbaceous roadside vegetation that is annually mowed and maintained; therefore, it is unlikely that the species would

use this area for upland refugia. In addition to the Project features that protect aquatic resources and provide biological oversight and wildlife protection, the following avoidance and minimization Measures (AMMs) would be implemented to avoid and/or minimize potential impacts to California red-legged frog; BIO 19: California Red-Legged Frog Habitat Work Window; BIO 20: California Red-Legged Frog Pre-Construction Surveys; and BIO 21: California Red-Legged Frog Monitoring Protocols.

Reptiles

Western Pond Turtle: The Project would have a less than significant impact on western pond turtle (*Emys marmorata*). The western pond turtle is a California SSC. There is one generically mapped reported CNDDDB occurrence of western pond turtle within a 5-mile radius of the BSA; however, the location is delineated to the entire Petaluma River quadrangle (CDFW 2021). Simonds Slough is similar in characteristics to nearby occurrences and is therefore presumed to support habitat for the western pond turtle. However, there are no apparent basking sites or haul-out areas within the BSA, so the likelihood of the western pond turtle to be within the BSA is low but, presumed present.

There would be no direct or indirect impacts to western pond turtle aquatic habitat. Implementation of the following Project features would specifically avoid impacts to aquatic resources, as well as the species: BIO-4: Mark Environmentally Sensitive Areas; BIO-5: Wildlife Exclusion Fencing; BIO-8: Construction Site Management Practices; BIO-10: Restore Disturbed Areas; BIO-16: Stop-Work Authority; BIO-18: Wildlife Species Relocation; and AMM WQ-1: Water Quality Best Management Practices.

Birds

California Black Rail: The Project would have a less than significant impact on California Black Rail (*Laterallus jamaicensis coturniculus*). California black rail is a state threatened and state fully protected species. California black rail are known to occur within the BSA. Tidal wetland habitat at Novato Creek and abutting the Petaluma River provide suitable habitat for California black rail. Due to the presence of suitable habitat and previous sightings of California black rail, the BSA at Novato Creek and the Petaluma River is presumed to support California black rail.

Installing new posts along the roadway and attaching new guard rails to the bridge rails would not be anticipated to cause a noise disturbance to California black rail,

particularly because any birds within the BSA are likely habituated to constant traffic noise. Noise resulting from construction would be transient, temporary, and not relatively louder than peak traffic ambient noise. There would be no direct impacts to the California black rail habitat along the Petaluma River as a result of this Project.

In addition to Project features that protect aquatic resources and provide biological oversight and wildlife protection, the following two AMMs would be implemented, as deemed necessary by the Project biologist, to avoid and/or minimize potential impacts to California black rail; BIO-22: California Ridgway's Rail and California Black Rail Pre-Construction Survey and BIO-23: California Ridgway's Rail and California Black Rail Monitoring.

California Ridgway's Rail: The Project would have a less than significant impact on California Ridgway's rail (*Rallus obsoletus* [*R. longirostris obsoletus*]). California Ridgway's rail is listed as federally endangered, state endangered, and is a state fully protected species. This species occurs primarily in tidal salt and brackish marshes that have consistent tidal flows, access to tidal channel networks, nesting and cover habitat, and prey supply of invertebrates. The species has been observed within Novato Creek near SR 37 (CDFW 2021). The last updated sighting at this location was in 1993, where one rail in mid-June (north of SR 37) and one rail in late June (south of SR 37) were observed (CDFW 2021). The BSA includes salt marsh habitat bordering the tidally influenced Novato Creek. However, near the bridge, Novato Creek provides only a minimal number of channel offshoots and the habitat is bordered by uplands that allows easy access by predators; therefore, the BSA does not support ideal habitat for the California Ridgway's rail. Although there are likely very few California Ridgway's rail in or adjacent to the BSA, given the proximity of known populations, and the occurrence of saltmarsh habitat bordering the tidally influenced Novato Creek, presence of California Ridgway's rail in the BSA is presumed.

The proposed Project has potential, although low, to temporarily impact California Ridgway's rail via noise disturbance if they are within the BSA. Installing new posts along the roadway and attaching the new guard rails to the bridge rails would not be anticipated to cause a noise disturbance to California Ridgway's rail, particularly because any birds within the BSA are likely habituated to constant traffic noise. Noise resulting from construction would be transient, temporary, and not relatively louder than peak traffic ambient noise. There would be no direct impacts to the California Ridgway's rail habitat as a result of this Project. In addition to the Project features

that protect aquatic resources and provide biological oversight and wildlife protection, the following two AMMs would be implemented, as deemed necessary by the Project biologist, to avoid and/or minimize potential impacts to California Ridgway's rail; BIO-22: California Ridgway's Rail and California Black Rail Pre-Construction Survey and BIO-23: California Ridgway's Rail and California Black Rail Monitoring.

Saltmarsh Common Yellowthroat: The Project would have a less than significant impact on saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*). Saltmarsh common yellowthroat is a state SSC. There are six reported CNDDDB occurrences of Saltmarsh common yellowthroat in the tidal wetlands bordering the Petaluma River (CDFW 2021). No CNDDDB occurrences have been reported at Novato Creek or Simonds Slough within the BSA. Based on the presence of both saltmarsh/brackish marsh habitat and freshwater habitat, both of which are bordered by shrubs and relatively tall herbaceous vegetation, the BSA is presumed to support habitat for the saltmarsh common yellowthroat at Novato Creek, Simonds Slough, and the Petaluma River.

Installing new posts along the roadway and attaching the guard rails to the bridge rails would not be anticipated to cause a noise disturbance to saltmarsh common yellowthroat, particularly because any birds within the BSA are likely habituated to constant traffic noise. There would be no impacts to the saltmarsh common yellowthroat habitat as a result of this Project.

Implementation of the following Project features would result in minimizing impacts to the species: BIO-6: Nesting Bird Surveys; BIO-7: Active Nest Buffers; and BIO-14: Agency-Approved Biologist.

San Pablo Song Sparrow: The Project would have a less than significant impact on San Pablo song sparrow (*Melospiza melodia samuelis*). The San Pablo song sparrow is a state SSC. There are 12 reported CNDDDB occurrences of San Pablo song sparrow within 5 miles of the BSA (CDFW 2021). The vegetation that makes up the tidal wetland habitat within the BSA can support San Pablo song sparrow habitat. Because of the presence of tidal wetland habitat, as well as species observations surrounding the BSA, San Pablo song sparrow nesting and foraging habitat is presumed present along Novato Creek and along the Petaluma River within the BSA.

Installing new posts and attaching guard rails to the bridge rails would not be anticipated to cause a substantial noise disturbance to San Pablo song sparrow,

particularly because any birds within the BSA are likely habituated to constant traffic noise.. There would be no impacts to the San Pablo song sparrow habitat along the Petaluma River as a result of this Project.

Implementation of the following Project features would result in minimizing impacts to the species: BIO-6: Nesting Bird Surveys; BIO-7: Active Nest Buffers; and BIO-14: Agency-Approved Biologist.

Tricolored Blackbird: The Project would have a less than significant impact on tricolored blackbird (*Agelaius tricolor*). The tricolored blackbird is a state threatened species and a California SSC. There are two reported CNDDDB occurrences of tricolored blackbird a little less than 5 miles east of the Simonds Slough within the BSA (CDFW 2021). Because of the presence of the freshwater emergent wetland within and adjacent to Simonds Slough, the tricolored blackbird wintering habitat within this part of the BSA is presumed. However, the proposed Project would not result in direct impacts on tricolored blackbird wintering habitat because there will be no direct impacts to Simonds Slough or adjacent wetland habitat.

Implementation of the following Project features would result in avoiding impacts to the species: BIO-6: Nesting Bird Surveys; BIO-7: Active Nest Buffers; and BIO-14: Agency-Approved Biologist.

Western Burrowing Owl: The Project would have a less than significant impact on western burrowing owl (*Athene cunicularia*). Western burrowing owl is a California SSC. There are seven reported CNDDDB occurrences of this species within a 5-mile radius of the BSA (CDFW 2021). There are no occurrences located along SR 37 within the BSA; however, there is suitable nesting, foraging, and overwintering habitat, grasslands with mammal burrows, adjacent to the BSA. Based on the presence of suitable habitat, burrowing owl foraging habitat is assumed to be present within the BSA. However, because of the continued disturbance from traffic and the location of more suitable habitat adjacent to the BSA, the likelihood of burrowing owl presence within the BSA is low.

The proposed Project includes minimal ground-disturbing activities that have potential to impact burrowing owl habitat. Staging in grassland habitat along the road shoulder could compact burrows and temporarily reduce foraging and nesting habitat. Construction noise would not be anticipated to impact burrowing owls because they are likely habituated to the ambient road noise. The proposed Project has potential,

although low, to temporarily impact nesting burrowing owl and foraging habitat via loss of available refugia and foraging habitat, if they are within the BSA.

Implementation of Project features, in particular BIO-14: Agency-Approved Biologist, would result in minimizing impacts to the species. In addition, the following two AMMs will be implemented to avoid and/or minimize potential impacts to burrowing owls: BIO-24: Western Burrowing Owl Pre-Construction Surveys and BIO-25 Western Burrowing Owl Nest Avoidance.

White-tailed Kite: The Project would have a less than significant impact on white-tailed kite (*Elanus leucurus*). The white-tailed kite is a state fully protected species. There are reported CNDDDB occurrences of white-tailed kite within 2.5 miles of the BSA (CDFW 2021). Based on known occurrences and the presence of foraging habitat, the white-tailed kite is presumed to occur in the BSA. However, there is no nesting habitat present in the BSA for the species.

The proposed Project would include minimal ground-disturbing activities that have potential to impact foraging habitat of the white-tailed kite. No trees would be removed as part of the Project; therefore, nesting habitat would not be impacted. Because the area surrounding the BSA is only foraging habitat, birds can easily fly away to another location during any construction disturbances. Therefore, the proposed Project would not be anticipated to impact white-tailed kites if they are within the BSA during construction.

Implementation of the following Project features would result in minimizing impacts to the species: BIO-6: Nesting Bird Surveys; BIO-7: Active Nest Buffers; and BIO-14: Agency-Approved Biologist.

Mammals

Pallid Bat: The Project would have a less than significant impact on pallid bat (*Antrozous pallidus*). The pallid bat is a California SSC. There are five reported CNDDDB occurrences of pallid bat within 5 miles of the BSA (CDFW 2021). A reconnaissance survey was conducted along the SR 37 corridor. Preliminary observations conclude that there is marginal habitat for crevice-roosting species, although many of the crevices are too small for pallid bats. Two areas that could support pallid bat roosting include weep holes, which are present at the SR 37/U.S. Highway 101 connector ramps (outside of the BSA) and the SR 37/Atherton Bridge overpass (inside the BSA). Because there is potential for roosting habitat within the BSA, it is presumed that pallid bats may occur within the work area.

Implementation of the proposed Project would not include work on the underside of SR 37. However, there would be a minor amount of curb work at the corner of Harbor Drive and Atherton Avenue, which is adjacent to the SR 37 overpass over Atherton Avenue. If pallid bats are roosting in weep holes at this location, then construction activities could disturb them. The proposed Project has potential, although low, to temporarily impact pallid bats if they are within the BSA during construction.

Implementation of following Project features would avoid and/or minimize impacts to bat species: BIO-11: Bat Protection; BIO-13: Night Lighting; and BIO-14: Agency-Approved Biologist. In addition, the following AMM would be implemented to avoid and/or minimize potential impacts to pallid bats: BIO-26: Bat Monitoring Protocols.

Townsend's big-eared bat: The Project would have a less than significant impact on Townsend's big-eared bat (*Corynorhinus townsendii*). The Townsend's big-eared bat is a California SSC. There is one reported current (2001) CNDDDB reported occurrence of Townsend's big-eared bat within 5 miles of the BSA, located a little less than 5 miles north of the BSA within Olompali State Park (CDFW 2021). A reconnaissance survey was conducted along the SR 37 corridor. Preliminary observations conclude that there is marginal habitat for crevice-roosting species; because there is potential for roosting habitat within the BSA, it is presumed that Townsend's big-eared bats may occur within the work area.

Implementation of the proposed Project would not include work on the underside of SR 37. However, there will be a minor amount of curb work at the corner of Harbor Drive and Atherton Avenue, which is adjacent to the SR 37 overpass over Atherton Avenue. If bats are roosting in weep holes at this location, construction activities could disturb them. The proposed Project has potential, although low, to temporarily impact Townsend's big-eared bats if they are within the BSA during construction.

Implementation of following Project features would avoid and/or minimize impacts to bat species: BIO-11: Bat Protection; BIO-13: Night Lighting; and BIO-14: Agency-Approved Biologist. In addition, the following AMM would be implemented to avoid and/or minimize potential impacts to Townsend's big-eared bats: BIO-26: Bat Monitoring Protocols.

Salt Marsh Harvest Mouse: The Project would have a less than significant impact on salt marsh harvest mouse (*Reithrodontomys raviventris*). The salt marsh harvest mouse is federally endangered, state endangered, and a state fully protected species. Because of the presence of salt marsh habitat within the BSA, the potential for salt

marsh harvest mouse to occur in the BSA is presumed. Implementation of the proposed Project would not include ground-disturbing work to salt marsh harvest mouse habitat, Novato Creek, or the bridge portion of SR 37 spanning Novato Creek. Additionally, there will be no impacts to the salt marsh harvest mouse habitat along the Petaluma River as a result of this Project.

Implementation of the following Project features would result in avoiding indirect impacts to salt marsh harvest mouse: BIO-4: Mark Environmentally Sensitive Areas; BIO-8: Construction Site Management Practices; BIO-10: Restore Disturbed Areas; BIO-14: Agency-Approved Biologist; and AMM WQ-1: Water Quality Best Management Practices.

Other Species

Other species listed as endangered or threatened under the federal Endangered Species Act or California Endangered Species Act, defined by CDFW as a SSC, or plant species in CNPS Online Inventory of Rare and Endangered Plants were eliminated from further consideration based on the BSA being outside of the species' range, and no suitable habitat was identified in the BSA.

Designated Critical Habitat

There is federally designated critical habitat for the CCC steelhead DPS and the Southern DPS of green sturgeon within the BSA and Project limits.

Designated critical habitat for the CCC steelhead DPS near the BSA includes the San Pablo Bay and its tributaries. Within the BSA, Novato Creek, Simonds Slough, and Petaluma River are designated critical habitat for CCC steelhead. However, CCC steelhead are currently unable to access Simonds Slough. Critical habitat for CCC steelhead includes freshwater spawning areas, freshwater rearing and migration areas, and estuarine rearing and migration areas. All freshwater and tidally influenced waters that overlap the BSA are included as designated critical habitat for this species.

Designated critical habitat Southern DPS of green sturgeon includes all waterways of the delta up to the mean higher high water elevation, except for certain excluded areas, and all tidally influenced areas of San Francisco Bay, San Pablo Bay, and Suisun Bay, up to the mean higher high water elevation. The primary constituent elements of green sturgeon critical habitat are defined by NOAA Fisheries; these elements include physical or biological features essential to the conservation of a species on which its critical habitat is based. Within the BSA, Novato Creek and

Petaluma River, and their associated salt marshes, are designated critical habitat for green sturgeon.

The Project is not expected to adversely modify or destroy the critical habitat physical and biological features that comprise federally designated critical habitat for the CCC steelhead or the Southern DPS of green sturgeon.

Because of Project features and AMMs that would be implemented by the Project to protect aquatic resources and wetland habitats, no indirect effects to critical habitat are anticipated. The Project is not anticipated to appreciably diminish the capability of the critical habitat to satisfy essential requirements of the designated species.

b) Less than Significant Impact

The Project would not have a substantial adverse effect on riparian habitat or environmentally sensitive natural communities.

Sensitive Natural Communities

There are no mapped CDFW-designated sensitive natural communities recorded within the BSA (CDFW 2021). However, there are tidal wetlands (which are typically considered a sensitive natural community), freshwater wetlands, and open water communities with the BSA and Project limits. Indirect impacts to these resources would be avoided with the implementation of the following Project features: BIO-4: Mark Environmentally Sensitive Areas; BIO-8: Construction Site Management Practices; and AMM WQ-1: Water Quality Best Management Practices.

Essential Fish Habitat

The Project is located in the Novato U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle, which has designated essential fish habitat (EFH) for Chinook and coho salmon and groundfish (NOAA Fisheries 2021). The BSA contains Novato Creek, Simonds Slough, and the Petaluma River. However, neither Novato Creek EFH, Petaluma River EFH, nor Simonds Slough EFH would be affected because there would be no direct impacts to these aquatic features, and no increases in shading. Therefore, there would be no impacts to EFH.

c) Less than Significant Impact

The Project is anticipated to have a less than significant impact on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, and coastal areas) through direct removal, filling, hydrological interruption, or other means.

An aquatic resources delineation was not conducted for federally protected wetlands and other waters as defined by Section 404 of the Clean Water Act. A preliminary determination of aquatic resources within the Project limits is based on aerial interpretation, USGS hydrography, National Wetlands Inventory data (USFWS 2021b), and the Marin County Fine Scale Vegetation Map data. For aquatic features that would require a field observation (such as, roadside wetlands), it is assumed that the mapped data are conservative representations of on the ground conditions and the number of aquatic resources would likely be reduced as a result of a final USACE delineation. Aquatic features mapped within the Project limits are shown on Figure 3-1.

Two perennial waters of the United States are within the Project limits: Novato Creek and Simonds Slough. Novato Creek is an estuarine-influenced creek that drains into San Pablo Bay. Simonds Slough is a freshwater drainage that drains into Novato Creek via a tide gate and pump system. There is tidal wetland/salt marsh habitat associated with Novato Creek and freshwater emergent wetland habitat associated with Simonds Slough. As currently mapped, there is 0.11 acre of open water habitat (that is, Novato Creek and Simonds Slough combined) within the Project limits.

Neither Novato Creek, Simonds Slough, nor their adjoining wetlands would be directly impacted by the proposed Project because no work would occur directly within these waters. No work would take place on bridges, except for connecting new guardrail to existing bridge rail. No bridge approach slabs would be replaced at any of the waterways or overcrossings. Temporary impacts to 0.78 acre of potential waters of the United States (roadside freshwater wetlands) could occur during construction. Federally protected wetlands and waters that may be temporarily impacted will be restored onsite to pre-construction conditions, upon completion of Project construction.

Settlement correction would occur adjacent to the slough, under the existing pavement, involving polyurethane foam injections into the road surface on the eastbound lane of SR 37 (Figure 1-3, Maps 4 and 5); however, no impacts are

anticipated to occur within the Simonds's Slough as a result of this work. Construction may include staging and vehicle access along the road shoulder, which could potentially impact the fragmented freshwater wetlands mapped along the road shoulder within the Project limits (Figure 3-1). There would be no anticipated permanent impacts to waters of the United States.

Indirect impacts to adjacent aquatic features would be avoided with the implementation of the following Project features: BIO-4: Mark Environmentally Sensitive Areas; BIO-8: Construction Site Management Practices; BIO-10: Restore Disturbed Areas; and AMM WQ-1: Water Quality Best Management Practices.

d) No Impact

The Project would not construct any new permanent barriers to wildlife movement, or otherwise interfere with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. There would be no impact.

e) No Impact

This Project would not conflict with any local policies or ordinances protecting biological resources; therefore, there would be no impact.

f) No Impact

This Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, there would be no impact.

Project Features

Caltrans would incorporate its standard measures into the Project to offset or avoid potential impacts to biological resources. These features include those described in the following paragraphs.

Project Feature BIO-1: Documentation at Project Site. A permit compliance binder would be maintained at the construction site at all times and presented to resource agency (U.S. Army Corps of Engineers [USACE], NOAA Fisheries, U.S. Fish and Wildlife Service [USFWS], Regional Water Quality Control Board [RWQCB], San Francisco Bay Conservation and Development Commission (BCDC), and/or CDFW) personnel upon request. The permit compliance binder would include

a copy of all original permits and agreements, and any extensions and amendments to the permits and agreements.

Project Feature BIO-2: Work According to Documents. Except as they are contradicted by measures within the permits and agreements, all work would be conducted in conformance with the Project description in the permits and agreements and the AMMs provided in the permits and agreements.

Project Feature BIO-3: Worker Environmental Awareness Training. Prior to the start of construction, a biologist would provide a training session for all work personnel to identify any sensitive species that may be in the area, their basic habits, how they may be encountered in their work area, and procedures to follow when they are encountered. Any personnel joining the work crew later would receive the same training before beginning work. Upon completion of the education program, employees would sign a form stating they attended the program and understand all protection measures. A pamphlet that contains images of sensitive species that may occur within the Project, environmentally sensitive areas (ESAs) within the Project site, and notes key avoidance measures, as well as employee guidance would be given to each person who completes the training program. These forms would be made available to the resource agencies upon request.

Project Feature BIO-4: Mark Environmentally Sensitive Areas. Before construction begins, ESAs would be clearly delineated using high-visibility orange fencing, flagging, or similar marking to delineate sensitive habitats. The ESA marking would remain in place throughout construction. It may be removed during the wet season (and subsequently re-installed), if needed to prevent materials from being washed away. The final Project plans would depict all locations where ESA markings would be installed and how the markings would be installed. The bid solicitation package special provisions would clearly describe acceptable marking material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbing activities within ESAs. ESA markings would be maintained in good repair throughout the Project as needed.

Project Feature BIO-5: Wildlife Exclusion Fencing. Before starting construction, wildlife exclusion fencing (WEF) would be installed at Simonds Slough, where wildlife could enter the Project site. Locations of the WEF would be determined in coordination with the onsite biologist. WEF installation locations would be identified during the plans, specifications, and estimate phase of the Project; the final plans

would depict the locations where WEF would be installed and how WEF will be assembled/constructed. The special provisions in the bid solicitation package would clearly describe acceptable WEF material and proper WEF installation and maintenance. The WEF would remain in place throughout the Project duration, while construction activities are ongoing; the WEF would be regularly inspected for stranded animals and fully maintained. The WEF would be removed following completion of construction activities or when construction is completed at that location at the discretion of the Project biologist.

Project Feature BIO-6: Nesting Bird Surveys. If Project activities occur between February 1 and September 30, then a pre-construction survey(s) would be conducted for nesting birds no more than 3 days before construction. If active nests are found, then an appropriate buffer would be established, and the nest would be monitored for compliance with the Migratory Bird Treaty Act and California Fish and Game Code (FGC) 3503.

Project Feature BIO-7: Active Nest Buffers. If an active bird nest is found during construction activities, then the following ESA buffers would be established: if an active raptor nest is observed, a 300-foot-wide ESA buffer would be implemented to avoid impacting the young until they have fledged; if an active nest of non-raptor migratory birds is observed, a 50-foot-wide ESA buffer would be implemented to protect the young until they have fledged, or as otherwise determined through consultation with USFWS and CDFW regarding appropriate action to comply with the Migratory Bird Treaty Act and California FGC 3503.

Project Feature BIO-8: Construction Site Management Practices. The following site restrictions would be implemented to avoid or minimize potential impacts on sensitive biological resources:

- Enforce a speed limit of 15 miles per hour for Project vehicles in unpaved portions of the site to reduce dust and excessive soil disturbance.
- Locate construction access, staging, storage, and parking areas within the Caltrans right of way and outside of any designated ESA to the extent practicable. Access routes, staging and storage areas, and contractor parking will be limited to the minimum necessary to construct the proposed Project. Clearly mark routes and boundaries of roadwork before initiating construction.

- Certify, to the maximum extent practicable, borrow material is non-toxic and weed free.
- Enclose food and food-related trash items in sealed trash containers and remove them from the site at the end of each day.
- Prohibit pets from entering the Project area during construction.
- Prohibit firearms within the Project site, except for those carried by authorized security personnel or local, state, or federal law enforcement officials.

Project Feature BIO-9: Invasive Weed Control. To reduce the spread of invasive, nonnative plant species and minimize the potential decrease of palatable vegetation for wildlife species, Caltrans would comply with Executive Order 13112. This order is provided to prevent the introduction of invasive species and provide for their control to minimize the economic, ecological, and human health effects. If noxious weeds are disturbed or removed during construction-related activities, the contractor would be required to contain the plant material associated with these noxious weeds and dispose of the material in a manner that would not promote the spread of the species. The contractor would be responsible for obtaining all permits, licenses, and environmental clearances for properly disposing of materials. Areas subject to noxious weed removal or disturbance would be replanted with fast-growing native grasses or a native erosion control seed mixture. Where seeding is not practical, the target areas within the Project area would be covered to the extent practicable with heavy black plastic solarization material until the end of the Project.

If work occurs in sensitive habitats, vehicles and equipment would be thoroughly cleaned before arriving on the site to prevent the spread of noxious weeds from other locations.

Project Feature BIO-10: Restore Disturbed Areas. Temporarily disturbed areas would be restored to the maximum extent practicable. Exposed slopes and bare ground would be reseeded with native grasses to stabilize and prevent erosion. Where disturbance includes the removal of trees and woody shrubs, native species would be replanted, based on the local species composition.

Project Feature BIO-11: Bat Protection. A habitat assessment would be conducted for potentially suitable bat roosting habitat prior to construction activities. If the habitat assessment reveals any structures are suitable roosting habitat for bats, then

the appropriate exclusionary measures would be implemented prior to construction during the period between March 1 and April 15, or August 31 and October 15. Potential avoidance may include exclusionary blocking or filling potential cavities with foam, visual monitoring, and/or staging Project work to avoid bats. If bats are known to use the structures, then exclusion netting would not be used.

Bats would not be disturbed without specific notice to, and consultation with, CDFW.

Project Feature BIO-12: Prevent Inadvertent Entrapment. To prevent inadvertent entrapment of animals during construction, all excavated, steep-walled holes or trenches more than 1-foot deep would be covered at the close of each working day, by plywood or similar materials, or provided with one or more escape ramps constructed of earthen fill or wooden planks at an angle no greater than 30 degrees. Before such holes or trenches are filled, they would be thoroughly inspected for trapped animals. Pipes, culverts, or similar structures stored in the Project area overnight would be inspected before they are subsequently moved, capped, or buried.

Project Feature BIO-13: Night Lighting. Some nighttime work is anticipated for this Project. For unavoidable nighttime work, all lighting would be shielded and directed downwards towards the active construction area to avoid exposing nocturnal wildlife to excessive glare.

Project Feature BIO-14: Agency Approved Biologist. A biologist approved by USFWS and CDFW would conduct pre-construction surveys for federally and state-listed species, and the biologist would be present during construction activities, including vegetation clearing and grubbing, as required by the resource agencies. If, at any point, any listed species is discovered within the Project limits, the agency-approved biologist, through the Resident Engineer or his/her designee, would halt all work within 50 feet of the animal and contact the corresponding agency (USFWS or CDFW) to determine how to proceed.

Project Feature BIO-15: Construction Noise. Construction noise limitations, as they relate to listed species, would be determined through consultation with state and federal agencies.

Project Feature BIO-16: Stop Work Authority. Through the Resident Engineer or their designee, the Project biologist(s) would have the authority to stop Project activities to minimize take of listed species or if he/she determines that any permit requirements are not fully implemented. Caltrans would provide appropriate

notifications based on language in the permits and agreements to agency(s) with jurisdiction.

Project Feature BIO-17: Discovery of Dead Special-status Species. Immediately upon discovery of any dead, injured, or entrapped special-status species regulated by USFWS, NOAA Fisheries, or CDFW, Caltrans would provide appropriate notifications based on language in the permits and agreements to agency(s) with jurisdiction.

Project Feature BIO-18: Wildlife Species Relocation. When listed wildlife species (that do not have state fully protected status) are present and it is determined that they could be injured or killed by construction activities, the Project biologist, in coordination with the appropriate state and federal wildlife agencies, and as outlined within the applicable permits, would identify appropriate methods for capture, handling, exclusion, and relocation of individuals that could be affected.

Avoidance and Minimization Measures

Caltrans would incorporate the following AMMs into the Project to offset or avoid potential impacts to biological resources.

AMM BIO-19: California Red-legged Frog Habitat Work Window. These work windows are applicable only to those portions of the Project area where suitable California red-legged frog habitat occurs (such as, the staging area adjacent to Simonds Slough). Areas that are not considered habitat (including paved surfaces and other hardscape) are accessible for construction work year-round (unless there are other seasonal restrictions outlined in a federal or state permit).

Initial ground disturbance (that is, ground disturbance in areas that have not been previously disturbed in such a way that removes or destroys access to burrows and migratory habitat, or in areas that have not previously been enclosed with WEF) in California red-legged frog upland dispersal habitat, as identified by a USFWS-approved Project biologist, will be timed to occur between April 15 and October 31.

AMM BIO-20: California Red-Legged Frog Pre-Construction Surveys. Pre-construction surveys for the California red-legged frog will be conducted by the Project biologist within 14 calendar days of the initiation of Project activities in suitable upland and aquatic habitat prior to ground-disturbing activities, vegetation removal, and WEF installation. Surveys will be conducted as outlined in the 2005 USFWS species survey guidelines for California red-legged frog. Access to habitat

during surveys may be limited by appropriate safety measures and protocols available at https://www.fws.gov/ventura/docs/species/protocols/crlf/caredleggedfrog_survey-guidelines.pdf. Pre-construction surveys will include:

- Foot surveys will be conducted of potential frog habitat within the Project limits and accessible adjacent areas (within at least 50 feet of Project limits).
- Potential cover sites (burrows, rocks, soil cracks, vegetation, and other potential refuge habitat) and any areas of disturbed soil for signs of California red-legged frog will be investigated.

Native vertebrates found in cover sites within the Project limits will be documented and, if handling is allowed, relocated to an adequate cover site in the vicinity. Species that cannot be relocated because of special protection status will be addressed in coordination with the appropriate agency(s) with jurisdiction.

AMM BIO-21: California Red-Legged Frog Monitoring Protocols. During construction in and near potential California red-legged habitat, the following protocols will be observed by the Project biologist during construction monitoring:

- Within 24 hours prior to initial ground-disturbing activities, portions of the Project limits where potential California red-legged frog habitat has been identified will be surveyed by a Project biologist(s) to clear the site of frogs moving above ground or taking refuge in burrow openings or under materials that could provide cover.
- A Project biologist(s) will be present during all initial ground-disturbing activities and vegetation removal in suitable refugia habitats for the California red-legged frogs to monitor the removal of the top 12 inches of topsoil.
- If potential aestivation burrows are discovered, the burrows will be flagged for avoidance.
- After a rain event, and prior to construction activities resuming, a qualified biologist will inspect the work area and all equipment/materials for the presence of California red-legged frog.
- Upon discovery of a California red-legged frog individual(s) in an active construction area, all work will cease within a 50-foot radius of the frog. The frog will be allowed to leave the site on its own; or if the frog(s) does not leave on its

own, it will be relocated as close to the Project site as feasible and with permission from the property owner, and placed in a natural burrow by a Project biologist with the appropriate USFWS 10(a)1(A) handling permit.

The USFWS will be notified by phone and email within one working day of any California red legged frog discovery in the Project area.

AMM BIO-22: California Ridgway's Rail and California Black Rail Pre-Construction Survey. If California Ridgway's rail or California black rail habitat is present within 700 feet of the immediate Project area and work would occur during the rail nesting season (February 1 through August 31), then a pre-construction survey by a USFWS 10(a)1(A) permit holder for California Ridgway's rail will be conducted to determine whether the species are present. Survey requirements and timing will be determined in consultation with USFWS and CDFW.

If California Ridgway's rail and/or California black rail are detected during pre-construction surveys, then Project activities will not occur within 700 feet of an identified detection (or smaller distance if approved by USFWS and CDFW) during the rail nesting season. If rail activity is detected within the 700-foot buffer, immediate consultation with USFWS and CDFW will be required.

AMM BIO-23: California Ridgway's Rail and California Black Rail Monitoring. The following monitoring protocols for California Ridgway's rail and California black rail will be implemented, where appropriate:

- A USFWS- and CDFW-approved biological monitor will be present onsite to monitor for California Ridgway's rail and California black rail during the operation of large equipment within 300 feet of salt marsh areas.
- During construction the Project biologist will be onsite at Novato Creek to periodically inspect the site to verify that habitat protection measures remain effective.

AMM BIO-24: Western Burrowing Owl Pre-Construction Surveys. Pre-construction surveys will be conducted where western burrowing owl nesting habitat has potential to occur within 500 feet of work areas. Survey protocol will be as follows:

- Conduct 4 survey visits.

- Conduct an initial visit occur between February 15 and April 15.
- Conduct a minimum of three subsequent surveys with at least 3 weeks between visits, with atleast one visit to occur after June 15.
- Conduct an additional take avoidance survey no less than 14 days prior to initiating ground-disturbing activities where work will occur.

AMM BIO-25: Western Burrowing Owl Nest Avoidance. If the active nest of a western burrowing owl is discovered during pre-construction surveys or biological monitoring, the following initial buffers will be implemented:

- From April 1 through October 15, establish a 660-foot (200-meter), no-work buffer from the active nest site.
- From October 16 through March 31, establish a 164-foot(50-meter), no-work buffer from the active nest site.
- Buffers and minimization measures (including, blinds, and screens) may be adjusted or implemented after coordination with CDFW.

AMM BIO-26: Bat Monitoring Protocols. If a bat or bat colony is observed nesting or roosting in active construction areas at the Project site, then construction activities that would imminently harm bats will stop within 150 feet of the roosting location until a qualified biologist develops a site-specific bat avoidance plan to implement at the roosting site. Once the plan is implemented, Project activities may resume with Project biologist oversight at that location.

3.3.5 Cultural Resources

Would the project:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR CULTURAL RESOURCES

Cultural resource evaluations prepared for this Project include: A Section 106 Screening Memo *for the CAPM Pavement Preservation Project* (Caltrans 2021b). This section summarizes the findings of this memo. No further archaeology or architectural history studies are required.

A review of project information, along with the Caltrans Cultural Resource Database, as-built plans, aerial photographs, and maps was conducted in accordance with the January 2014 *First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (programmatic agreement [PA]) (FHWA et al., 2014).

In addition, Caltrans contacted the Native American Heritage Commission on March 17, 2021, requesting that they conduct a search of their Sacred Land Files to determine if there were known tribal resources within or near the Project area. The Native American Heritage Commission responded on March 26, 2021, with a list of two Native American individuals and organizations for further consultation, and negative results from the Sacred Land File search. On March 29, 2021, and September 14, 2021, emails requesting input, along with a Project area map, were emailed to Ms. Buffy McQuellin, Tribal Historic Preservation Officer Federated Indians of Graton Rancheria, and to the Chairperson of Guidiville Indian Rancheria. In September 2021, follow-up phone calls were attempted to both organizations; no responses were received (Caltrans 2021b).

a, b, c) No Impact

The Project is exempt from further review pursuant to the PA, Stipulation VII, “Screened Undertakings.” The undertaking has been screened and is exempt under Class 1 (Pavement reconstruction, resurfacing, shoulder backing, or placement of seal coats), and Class 13 (Addition or replacement of devices, such as glare screens, median barriers, fencing, guardrails, safety barriers, energy attenuators, guideposts, markers, safety cables, ladders, lighting, hoists, or signs) of Attachment 2, “Screened Undertakings,” in the PA. The Project would have no impact on historic resources or archaeological resources; therefore, there would be no impact.

Based on literature review, database searches, and outreach to local Native American organizations, the proposed Project has no potential to affect cultural resources. Implementation of Project features CULT-1 and CULT-2 would reduce potential impacts to undiscovered cultural resources.

Project Feature

Caltrans would incorporate its standard measures into the Project to offset or avoid potential impacts to cultural resources. These Project features include those described in the following paragraphs.

Project Feature CULT-1: Discovery of Cultural Resources. If previously unidentified cultural resources are unearthed during construction, work would be halted in that area until a qualified archaeologist can assess the significance of the discovery.

Project Feature CULT-2: Discovery of Human Remains. If remains are discovered during dredging activities, all work within 60 feet of the discovery would halt and Caltrans Cultural Resource Studies Office would be called. Caltrans Cultural Resources Studies Office Staff would assess the remains and, if they are determined to be human, would contact the County Coroner, per Public Resources Code, Sections 5097.98, 5097.99, and 7050.5 of the California Health and Safety Code. If the coroner determines the remains to be Native American, then the coroner would contact the Native American Heritage Commission, which would assign a Most Likely Descendant. Caltrans would consult with the Most Likely Descendant on treatment and reburial of the remains. Further provisions of Public Resources Code, Section 5097.98 would be followed as applicable.

3.3.6 Energy

Would the project:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR ENERGY

An *Energy Analysis Report* (Caltrans 2021c) was completed for the Project. This section summarizes the findings of this report.

a) Less than Significant Impact

Activities that consume energy also generate byproducts. Greenhouse gases (GHGs) are the most closely studied byproducts of energy consumption because they are linked to climate change (also refer to Section 3.3.8, Greenhouse Gas Emissions). The Caltrans Construction Emission Tool (CAL-CET 2020), version 1.0, was used to estimate diesel and gasoline fuel consumption that generates from construction equipment and vehicles. A summary of energy usage in terms of fuel consumption is shown in Table 3-1.

Table 3-1. Construction Equipment and Vehicle Fuel Consumption

Diesel (gallons)	Gasoline* (gallons)
35,992	32,294

*Gasoline fuel consumption was adjusted to account for the Safer Affordable Fuel-Efficient (SAFE) Rule Part One and Final SAFE Rule.

The Project is not a congestion relief project. Construction activities would be short term and would not increase roadway capacity or otherwise alter long-term vehicular circulation that could affect energy use. During construction, BMPs, as described under Project Feature Energy-1, would be implemented for energy efficiency of construction equipment. During Project operation, energy consumption would be limited to routine maintenance. The impact would be less than significant.

b) No Impact

The Project would result in improved ride quality, which would improve vehicle operations, reduce emissions, and reduce energy consumption. Traffic volumes and types of vehicles using the roadway would not change as result of the Project. Therefore, the proposed Project would not conflict with the regional/statewide goals on climate change, air quality, and petroleum reduction.

The Project would not conflict with a state or local plan for renewable energy or energy efficiency. There would be no impact.

Project Feature

Caltrans would incorporate a standard measure into the Project to offset or avoid potential impacts to energy. This feature is described in the following paragraph.

Project Feature Energy-1: Minimize Energy Consumption from Construction Activities. The use of construction BMPs would minimize energy consumption from construction activities, including, but not limited to: (1) limit idling of vehicles and equipment; (2) use solar power as a power source, if feasible; (3) ensure regular maintenance of construction vehicles and equipment; and (4) if feasible, recycle nonhazardous waste and excess materials to reduce disposal offsite.

3.3.7 Geology and Soils

Would the project:

Question	CEQA Determination
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: (i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	No Impact
(ii) Strong seismic ground shaking?	No Impact
(iii) Seismic-related ground failure, including liquefaction?	No 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 on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR GEOLOGY AND SOILS

A *Geologic and Palaeontologic Analysis for Capital Preventive Maintenance Project* technical memorandum (Caltrans 2022b) was prepared for the Project. This section includes the findings of this study.

The Project is in the central portion of the Coast Ranges Geomorphic Province of California. The dominant feature of the province is the San Andreas Fault, an 800-mile-long fault zone that generally forms the dividing line between major tectonic plates, with the Pacific Plate situated west of the fault and the North American Plate situated east of the fault. The western end of the Project is located approximately 14 miles east of the San Andreas Fault. The Burdell Mountain Fault is an undifferentiated Quaternary Inferred fault located north of the Project site (USGS 2022).

SR 37 through the Project limits lies on engineered (artificial) fill overlying marsh deposits and minor bedrock of the Great Valley Sequence. Soft soils (clay or silty clay soils) are found at the site.

The Project limits includes the following soils series, in order of most prevalent to least: Reyes clay, 0 to 2 percent slopes; Xerorthents, fill; Xerorthents-Urban land complex, 0 to 9 percent slopes; and water. General information on these soils was obtained from the National Resources Conservation Service (NRCS) web soils survey and official soil series descriptions (NRCS 2021).

a(i) – (iv) No Impact

The Project would be subjected to strong ground shaking from nearby faults; however, the potential for fault rupture does not exist at the Project site. The Project does not directly or indirectly increase the potential for surface rupture, or strong ground shaking, or expose the public to increased risk of loss, injury, or death.

Soils may be subject to liquefaction during a strong seismic event; however, Project elements would not further add to the hazard. The Project would not expose the public to hazards from landslides or erodible soils. Soft soils (clay or silty clay soils) are found at the site. Soils are not expansive or collapsible, and the Project does not propose septic systems.

The Project is not located on a geologic unit or soil that is unstable. Therefore, the Project would not increase the potential risk of loss, injury, or death resulting from seismically related liquefaction. There would be no impact.

The Project would not affect geologic or native soil conditions and would not disturb the native subsurface because the Project would be located on previously disturbed ground. There would be no additional impacts to the public from earthquakes, landslides, liquefaction, or other geologic hazards.

b) Less than Significant Impact

The Project would require soil disturbance, which could result in erosion. With Caltrans construction BMPs, outlined in AMMs Water Quality WQ-1 through WQ-4, discussed under Hydrology and Water Quality, the Project would not result in substantial erosion or loss of topsoil and the impact would be less than significant.

c, d, f) No Impact

There are no sensitive geologic, paleontological, or mineral resources in the Project limits. No additional impacts to the public from earthquakes, landslides, liquefaction, or other geologic hazards would result from the Project. Project excavation would be in engineered fill over marsh deposits. These units are not fossil bearing and would not require monitoring during excavation. Therefore, no impact would occur.

e) No Impact

No septic tanks or alternative wastewater delivery systems would be constructed or affected by the Project; therefore, no impact would occur.

3.3.8 Greenhouse Gas Emissions

Would the project:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR GREENHOUSE GAS EMISSIONS

A *Construction Greenhouse Gas Emissions Analysis* memorandum (Caltrans 2021d) was completed for the Project. This section summarizes the findings of this review.

a) Less than Significant Impact

The GHG emissions resulting from construction activities would be short term and, therefore, would not result in a long-term impact on the environment. Construction-generated GHG includes emissions resulting from material processing, onsite construction equipment, workers commuting to and from the Project site, and traffic delays from construction. The GHG emissions would be produced at different levels throughout the Project, depending on the activities involved at various phases of construction.

Based on available Project information, the construction-related GHG emissions were calculated using the Caltrans Construction Emissions Tool (CAL-CET 2020), version 1.0, provided by the Caltrans Headquarter at Sacramento. The analysis was focused on vehicle-emitted GHG. Carbon dioxide (CO₂) emissions is the single most important GHG pollutant because of its abundance when compared with other vehicle-emitted GHG, including methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbon, and black carbon.

For a construction duration of 5 months, the total amount of CO₂ produced as a result of construction was estimated to be 444 tons. Table 3-2 summarizes the construction-related emissions, including the total carbon dioxide equivalent (CO₂e) emission. Frequency and occurrence of GHG emissions would be reduced through Project Feature GHG-1, described below.

Table 3-2. Construction-related GHG Emissions

CO ₂ Parameters (tons)	CH ₄ Parameters (tons)	N ₂ O Parameters (tons)	CO ₂ e Total (metric tons)*
444	0.01	0.03	453.19

*Gases are converted to CO₂e by multiplying by their global-warming potential. Specifically, global-warming potential is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of CO₂.

b) No Impact

The Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The Project would not contribute to a long-term increase in GHG emissions. Therefore, it is not in conflict with reducing long-term emissions. There would be no impact.

Project Feature

Caltrans would incorporate a standard measure into the Project to offset or avoid potential impacts to greenhouse gases. This feature is described in the following paragraph.

Project Feature GHG-1: Control Measures for Greenhouse Gases.

Implementation of Caltrans Standard Specifications, such as complying with air-pollution-control rules, regulations, ordinances, and statutes that apply to work performed under the contract and the use of construction BMPs, would result in reducing GHG emissions from construction activities. These BMPs would include, but not be limited to: (1) ensure regular maintenance of construction vehicle and equipment; (2) limit idling of vehicles and equipment onsite; and (3) recycle nonhazardous waste and excess material if practicable.

3.3.9 Hazards and Hazardous Materials

Would the project:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR HAZARDS AND HAZARDOUS MATERIALS

There is the potential for encountering hazardous materials during the construction stage of the Project (Caltrans 2021e). Limited testing may need to be conducted during later Project phases, including a site investigation to handle potential soil contamination levels primarily from aerially deposited lead, pesticides, and herbicides in the Project limits to inform appropriate conditions to minimize impacts during construction.

a, b) Less than Significant Impact

The Project would not create a significant hazard to the public related to the routine transport, use, or disposal of hazardous materials. Also, the Project would not 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.

Caltrans standard specifications BMPs would be implemented to prevent spills or leaks from construction equipment, as well as from storage of materials, such as fuels,

lubricants, and solvents. All aspects of the Project associated with removal, storage, transportation, and disposal would be in strict accordance with the appropriate regulations of the California Health and Safety Code. Handling of hazardous materials would comply with Caltrans Standard Specification 14-11, Hazardous Waste and Contamination, which outlines handling, storing, and disposing of hazardous waste. The impact would be less than significant.

c) No Impact

The Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school because there are no existing or proposed schools within 0.25 mile of the Project; therefore, there would be no impact.

d) No Impact

The Project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As a result, the Project would not create a significant hazard to the public or the environment. Based on a review of the SWRCB GeoTracker database (SWRCB 2022), four leaking underground storage tank cleanup sites were found south of the Project, near Harbor Boulevard. The leaking underground storage tank sites each have a completed case closed status, are not located within the Project limits, and would not be affected by the Project. Compliance with Caltrans Standard Specifications 14-11, Hazardous Waste and Contamination is required. There would be no impact.

e) No Impact

The Project is not located within an airport land use plan or within 2 miles of a public airport or public use airport. There would be no impact.

f) Less than Significant Impact

The Project would minimally interfere with any emergency response or evacuation plan. Potential traffic delays would result from construction activities. One-way traffic control and one lane closure would be required during construction. Prior to construction, a traffic management plan (TMP) (AMM Transportation and Traffic TRANS-1 in the Transportation and Traffic section) would be developed to control traffic, minimize traffic delays, and provide alternative routes. Emergency response times are not anticipated to change during construction because the TMP would

provide priority to emergency vehicles during one-way traffic control. The TMP would provide instructions for emergency response or evacuation in an emergency. In addition, the Project would not conflict with any other emergency response or evacuation plan. The impact would be less than significant.

g) No Impact

The Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. Caltrans proposes to upgrade existing facilities on SR 37, and would not have occupants or require installing associated infrastructure that would exacerbate fire risk or expose people or structures to risks. There would be no impact.

3.3.10 Hydrology and Water Quality

Would the project:

Question	CEQA Determination
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Less than Significant Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such 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 on- or off-site;	No Impact
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	No Impact
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	No Impact
(iv) impede or redirect flood flows?	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR HYDROLOGY AND WATER QUALITY

Caltrans completed the following hydrology and water quality technical studies for the Project, the *Location Hydraulic Study/Floodplain Analysis* (Caltrans 2021f), *Water Quality Study* (Caltrans 2022c). This section summarizes the findings of that review.

The Project location may be subject to tidal influence from current and/or future sea-level rise as provided in the State of California Sea-Level Rise Guidance, 2018 Update (California Ocean Protection Council 2018). However, a discussion of climate change including potential sea-level rise is not covered in this document because of the interim nature of the Project, the purposes of which are to preserve and extend the life of the existing pavement and ride quality on SR 37. Climate change and future sea-level rise will be considered through the environmental evaluation process of future projects scoped to address these issues on SR 37 in the Project limits including Caltrans SR 37 Corridor Planning and Environmental Linkages Study (U.S. 101 to Interstate-80), and the SR 37 Flood Reduction Project, currently under environmental review.

This Project is located within the San Francisco Regional Water Quality Control Board (Region 2). This segment is in the Hydrologic Sub-Area 206.20 and the San Pablo Bay Watershed.

a) Less than Significant Impact

The proposed Project would not violate water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality.

Water bodies located within and around the Project vicinity include Novato Creek and the Petaluma River. Novato Creek is in the 2014-2016, 303(d) listed impaired water bodies for the below listed pollutants. Petaluma River is not in the list of 303(d) water bodies, but it is a sediment-sensitive waterbody. The receiving water bodies are Novato Creek and San Pablo Bay.

The SWRCB issued a statewide CGP for construction activities (2009-0009-DWQ, CAS000002, as amended by 2010-0014-DWQ and 2012-0006-DWQ). The CGP applies to stormwater discharges from land where clearing, grading, and excavation result in a DSA of 1 acre or greater. Projects subject to the CGP require a SWPPP per Caltrans Standard Specification 13, “Water Pollution Control.” The expected DSA would be 2.17 acres; therefore, this Project’s construction activities are subject to the CGP. A SWPPP would be provided to control all the potential temporary construction impacts resulting from the project. AMMs WQ-1 Water Quality Best Management Practices, WQ-2 Design Pollution Prevention Temporary Construction BMPs, and WQ-3 Design Pollution Prevention BMPs Post Construction would reduce impacts to less than significance.

According to the initial design information the net new impervious surface would be approximately 1.58 acres and the replaced impervious surface would be approximately 0.58 acre. The resultant new impervious surface would be 2.16 acres¹. Because the new impervious surface would be more than 1 acre, post-construction stormwater treatment measures would be provided for this new impervious surface area, as described in AMM WQ-4 Post-Construction Treatment BMPs.

Section 401 of the Clean Water Act requires a water quality certification from either the SWRCB or RWQCB when a project would require a federal permit. A Section 404 permit, issued by USACE may not be pursued, because no bridge approach slabs

¹ The new impervious surface is the addition of the net new impervious surface and the replaced impervious surface.

would be replaced at any of the waterways or overcrossings and no work would occur within Simmonds Slough. If a 404 permit is not pursued, and there is no in-water work, a 401 water quality certification may not be required.

Potential temporary impacts to existing water quality would result from active construction areas, which could lead to the release of fluids, concrete material, construction debris, sediment, and litter beyond the perimeter of the Project site. Implementation of AMMs WQ-1 and WQ-2, would be used for sediment control and material management. The anticipated sources for potential, temporary impacts to the water quality during construction may include, but are not limited, to the following:

- Concrete work
- Paving operation debris getting into the drainage inlets and storm drains
- Oil and grease from vehicles and construction equipment
- Sanitary waste
- Chemicals used for equipment and operations
- Trash

According to the Caltrans District 4 Regional Board 2 Trash Generation Map, there are moderate trash generation ratings at the SR 37 SR 101 separation and at PM 13.69 (Black Point), which trigger the requirement of a full trash control system, as described in AMM WQ-5 Full Trash Capture Devices. Full trash capture devices at these two locations would be designed during later Project phases. Trash capture devices that could be used include trash nets, or a gross solid removal device, described as follows:

- A trash net is a full trash capture device, with a net or screen system on a pipe (trash net pipe), designed to remove solid waste (trash or litter) from stormwater runoff from Caltrans facilities flowing in a drainage system (pipe or ditch). It is installed at a stormwater pipe system.
- A gross solid removal device is another a full trash capture device or treatment, uses screening technology to capture the trash, or gross solids (such as paper, plastics, or glass), and naturally occurring debris that may be conveyed by stormwater runoff from Caltrans facilities.

Potential, long-term impacts water quality are the depositing and transport of sediment and vehicular-related pollutants, such as oil, wearing of brake pads, and litter from motorists. The removal of vegetation as a result of earthwork and from

locations, such as contractor staging and stockpile areas, create DSAs. If not stabilized prior to completion of the construction phase, sediment could be discharged post-construction. Implementation of AMM WQ-3, Design Pollution BMPs Post Construction, would reduce the potential for impacts to water quality following construction.

With implementation of AMMs WQ-1 through WQ-5, the Project would not substantially degrade surface water quality and the impact would be less than significant.

b) No Impact

The Project would have no effect to groundwater supplies or groundwater recharge areas in the Project vicinity. There would be no impact.

c(i), (ii), (iii), (iv)) No Impact

The Project would not substantially alter the existing drainage pattern of the Project site and would not result in substantial erosion or siltation. The Project would not result in an increase of surface runoff, create runoff that would exceed existing storm drain systems, or create substantial additional sources of polluted runoff. The Project would not impede or redirect flood flows. There would be no impact.

d) No Impact

No floodplain impacts from the Project are expected. While SR 1 pavement is within the Federal Emergency Management Agency 100-year floodplain in several locations, as defined by the agency's Flood Insurance Rates Maps (numbers 06041C0283E, 06041C0284E, and 06041C0282E), the Project would not alter existing terrain or existing drainage patterns; therefore, the Project would not increase the risk of flooding or damage to residences, buildings, or crops. The Project would not impact natural and beneficial floodplain values or support incompatible floodplain development. The Project would not impact the floodplain; therefore, no measures to minimize floodplain impacts are required.

The proposed Project is not in seiche or tsunami zones. There would be no impact.

e) No Impact

The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. There would be no impact.

Avoidance and Minimization Measure

Caltrans would incorporate the below AMMs into the Project to offset or avoid potential impacts to hydrology and water quality.

AMM WQ-1: Water Quality Best Management Practices. This Project will require a 401 Permit from the San Francisco Bay RWQCB. It is anticipated that the RWQCB permit will require a SWPPP, which will provide guidance on erosion control BMPs to be implemented to minimize wind- or water-related erosion. These BMPs will also be implemented via language in the *Construction Site Best Management Practices (BMPs) Manual* (Caltrans 2017), which provides guidance for including provisions in all construction contracts to protect sensitive areas, and prevent and minimize stormwater and non-stormwater discharges. BMPs will include wind erosion controls (such as temporary covers, hydraulic mulch, hydroseeding and wood mulching), and drainage inlet protection.

AMM WQ-2: Design Pollution Prevention Temporary Construction BMPs. The BMPs recommended for potential temporary construction impacts resulting from the project are: (1) job site management (2) sediment control (3) waste management and materials pollution control, (4) non-storm water management, (5) stockpile management, (6) tracking controls, (7) wind erosion controls, and (7) drainage inlet protection.

AMM WQ-3: Design Pollution Prevention BMPs Post Construction: Design pollution prevention BMPs will be applied for post-construction erosion control since the Project involves DSA within Project limits. The BMPs will control post-construction impacts resulting from the Project.

AMM WQ-4: Post-Construction Treatment BMPs. Because new impervious surface is more than 1-acre, post-construction stormwater treatment measures need to be provided for the new impervious surface. Furthermore, because net new impervious surface is more than 1 acre, hydromodification is required to control all the post-construction impacts resulting from the Project.

AMM WQ-5: Full Trash Capture Devices. In accordance with Caltrans District 4 Regional Board 2 Trash Generation Map, there are moderate trash-generation ratings at the SR 37/SR 101 separation and at PM 13.69 (Black Point), which require a full trash control system and full trash capture devices. Therefore, full trash control system and full trash capture devices will be required at these moderate trash-generating areas.

3.3.11 Land Use and Planning

Would the project:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR LAND USE AND PLANNING

SR 37 runs 21 miles along the northern shore of San Pablo Bay, from U.S. Route 101 in Novato through northeastern Marin County, crossing over the Petaluma River and through southern Sonoma and Solano counties, to Interstate 80 in Vallejo. The Project on SR 37 is approximately 3 miles long and located at the western end of SR 37 in the city of Novato within Marin County. Within the Project limits, SR 37 is a conventional highway with two lanes of travel in each direction. SR 37 at the Project area is currently listed as being eligible for State Scenic Highway designation.

Within the Project limits, the surrounding area primarily consists of open space, agricultural or undeveloped or conservation land, some light office/industrial, and low-density rural residential land uses. Open space dominates, with the nearest residences at Bel Marin Keys roughly 0.25 mile to the southeast, outside of Novato’s city limits. Deer Island Preserve is within view and a short distance to the north (Figure 3-2).

The Project limits are within the East District of the Novato General Plan, one of eight distinct neighborhoods. The East area is bounded by the Petaluma River and the Novato city limit to the north and east, open space and grazing land to the south, and Highway 101 to the west. The area is largely rural and isolated from the rest of Novato by the hills of the Rush Creek Open Space Preserve and U.S. 101. Major activity centers in the area include Deer Island, Olive Elementary School, Atherton Avenue Fire Station, and the Black Point Boat Launch Park. Neighborhoods include Bahia and residential areas near the Olive School, Poplar Terrace, Davidson Street, and Atherton Avenue. The unincorporated Black Point community is south of the Project limits. The new Vintage Oaks regional shopping center is southeast of the Highway 101/Rowland Boulevard interchange. There are some scattered industrial uses in the Bay plain, including a sewage treatment plant. Much of the area consists of bay plains, which have been diked and filled for agriculture. Under General Plan policies, agricultural, open space, and conservation lands would be encouraged to

remain in these uses. General Plan policies would require careful review of development in floodplains. Other environmental resources that would be protected under General Plan policies are Atherton Ridge, Olive Ridge, Reservoir Hill at Hamilton Field, and Deer Island. Streamside protection policies apply to Novato Creek.

No changes in land use would occur from the Project in the Project vicinity.

a) No Impact

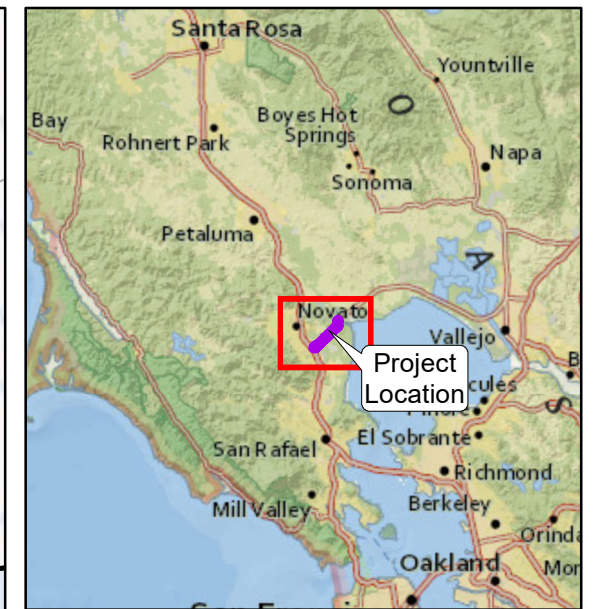
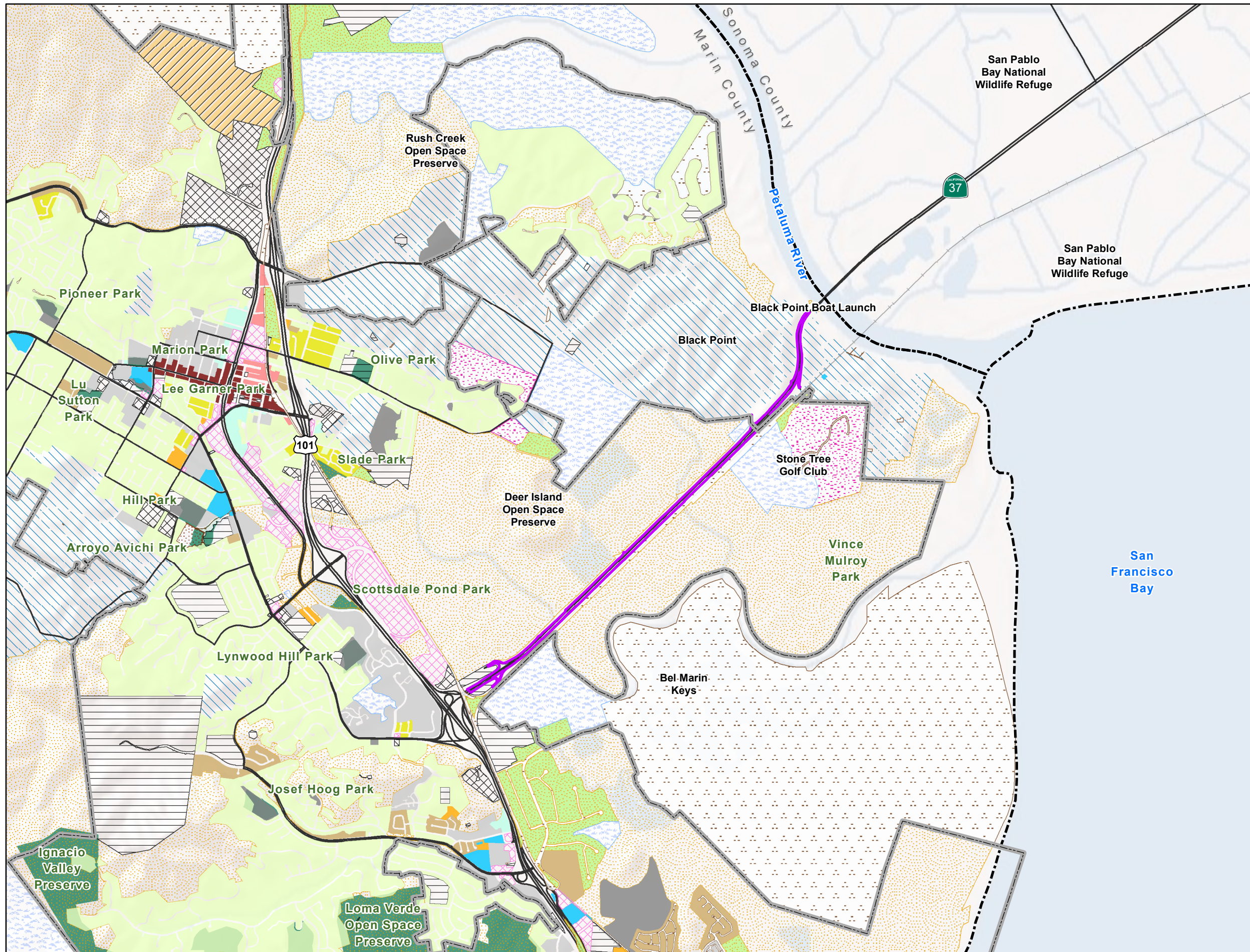
The Project would not physically divide an established community. There would be no impact.

b) No Impact

Consistency with State, Regional, and Local Plans and Programs

Land use plans, policies, and regulations that are applicable to the Project include the Regional Transportation Plan and Sustainable Communities Strategy for the San Francisco Bay Area 2013 to 2040 (ABAG and MTC 2017); Marin Countywide General Plan (Marin County 2007), and the City of Novato General Plan 2035 (Novato 2020). The Project's consistency with the Association of Bay Area Governments (ABAG)/Metropolitan Transportation Commission (MTC) Plan is discussed under Section 3.3.17, Transportation. The Project would be consistent with both the Marin County and Novato General Plans.

In summary, the Project would not conflict with any adopted land use plan, policy, or regulation. The Project would be consistent with the Marin County General Plan, the City of Novato General Plan 2035 and other local, regional and state policies. There would be no impacts.



- LEGEND**
- Work Area
 - Novato City Limits
 - Park
 - Novato General Plan**
 - Agricultural (AG)
 - Business and Professional Office (BPO)
 - Commercial/Industrial (CI)
 - Community Facilities (CF)
 - Conservation (CON)
 - Downtown Core Retail (CD)
 - General Commercial (CG)
 - High Density Multi-Family Residential (R20)
 - Light Industrial/Office (LIO)
 - Low Density Residential (R1)
 - Medium Density Detached Residential (R4)
 - Medium Density Multi-Family Residential (R10)
 - Medium Density Residential (R5)
 - Mixed Use (MU)
 - Neighborhood Commercial (CN)
 - Open Space (OS)
 - Parkland (P)
 - Research/Education-Institutional (REI)
 - Rural Residential (RR)
 - Undesignated
 - Very Low Density Residential (RVL)

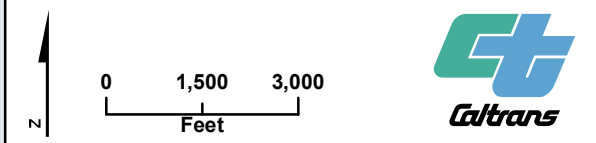


FIGURE 3-2
Land Use
 SR 37 CAPM Pavement Preservation
 EA 04-2K740, MRN-37 PM-R11.2/14.6
 Marin County, California

3.3.12 Mineral Resources

Would the project:

Question	CEQA Determination
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

CEQA SIGNIFICANCE DETERMINATIONS FOR MINERAL RESOURCES

a-b) No Impact

The Project would not result in the loss of availability of a known mineral resource or result in the loss of availability of a locally important mineral resource recovery site because there are no documented mineral resources within the Project limits (Marin County 2022). Therefore, no impacts on mineral resources would result from the Project.

3.3.13 Noise

Would the project result in:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR NOISE

The surrounding land uses, adjacent to the Project on either side of SR 37, primarily consist of agricultural or undeveloped land, with the nearest residences at Bel Marin Keys roughly 0.25 mile to the southeast. During construction, noise from construction activities may intermittently dominate the environment in the immediate area of construction, affecting nearby sensitive receptors (residences). Impacts to sensitive receptors and increases in noise levels would be temporary.

To determine whether a noise analysis is needed, a project falls into one of two categories. A Type I project is defined in 23 *Code of Federal Regulations* (CFR) 772 as a proposed federal or federal-aid highway project, for the construction of a highway at a new location or the physical alteration of an existing highway that significantly changes either the horizontal or vertical alignment or increases the number of through-traffic lanes. A Type II project is defined in 23 CFR 772 as a federal or federal-aid highway project for noise abatement on an existing highway. The proposed Project does not qualify as Type I or Type II, as defined under the 23 CFR 772 and the Caltrans Traffic Noise Analysis Protocol. Therefore, a traffic noise study is not required (Caltrans 2021g).

Construction noise can disturb migratory bird nesting and foraging activities. See discussion under the CEQA Environmental Checklist, Section 3.3.4, Biological Resources.

a) Less than Significant Impact

Noise and vibration associated with construction is controlled by Caltrans Standard Specification 14-8, Noise and Vibration. AMM Noise-1, Specifications for Controlling Noise and Vibration, states noise would be controlled and monitored for work activities, and noise should not exceed 86 decibels (maximum) at 50 feet from the job site between the hours of 9:00 p.m. and 6:00 a.m.

In the event that the construction noise exceeds or is expected to exceed the applicable contract specifications and criteria, then the measures listed in AMM Noise-2, Noise During Construction, would be implemented to reduce the potential for noise impacts, thereby reducing construction impacts to less than significant levels.

The Project would not cause a permanent, substantial increase in ambient noise level above existing conditions. Construction noise would be temporary; therefore, there would be no permanent noise impact.

b) Less than Significant Impact

The Project would not create excessive groundborne vibration or groundborne noise levels. Increases in noise levels from construction activities would be temporary. Following construction, noise levels would not change from existing levels. Therefore, impacts would be less than significant.

c) No Impact

The Project is not within the vicinity of a private airstrip or an airport land use plan. There would be no impact.

Avoidance and Minimization Measures

Caltrans would incorporate the following AMMs into the Project to offset or avoid potential impacts from noise.

AMM Noise-1: Specifications for Controlling Noise and Vibration. Noise from construction activities is not to exceed 86 A-weighted decibel L_{max}^2 at 50 feet from

² L_{max} noise descriptor is the highest instantaneous noise level during a specified period; in the noise analysis, that is 1 hour.

the Project site from 9:00 p.m. to 6:00 a.m. per 2018 Caltrans Standard Specifications, Section 14-8.02.

AMM Noise-2: Noise Levels During Construction. The following measures would be implemented during construction to reduce noise:

- Restrict the times of overly loud construction activities to between 6:00 a.m. and 9:00 p.m. (except on holidays).
- Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Locate all stationary, noise-generating, construction equipment, such as air compressors, portable power generators, or self-powered lighting systems, as far as practical from noise-sensitive receptors.
- Use quiet air compressors and other quiet equipment where such technology exists.
- As practicable, have construction equipment conform to Section 14-8.02, Noise Control, of the latest Caltrans Specifications.

3.3.14 Population and Housing

Would the project:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR POPULATION AND HOUSING

a, b) No Impact

The Project would not induce substantial, unplanned, population growth either directly or indirectly because it does not increase the capacity of SR 37, remove barriers to future growth, or increase population or housing growth (or demand for new housing, utilities, or public services). The Project would not displace existing people or housing or necessitate the construction of replacement housing elsewhere. There would be no impact to population and housing.

3.3.15 Public Services

Question	CEQA Determination
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

CEQA SIGNIFICANCE DETERMINATIONS FOR PUBLIC SERVICES

a) No Impact

The proposed Project would not result in the substantial alteration of government facilities, such as fire and police protection, schools, parks, or other public facilities, in the Project area. Additionally, the proposed Project would not trigger the need for new government facilities or alter the demand for public services. There would be no impact.

The majority of the Project is in Novato, with the far eastern end of the Project within Marin County (Figure 1-2). The Project falls under the jurisdiction of the Novato Police Department, located at 909 Machin Avenue in Novato. The Novato Fire Department provides fire protection services in the Project area. The closest fire station to the Project area is the Novato Fire District Station 62, at 450 Atherton Road in Novato.

Traffic delays could occur as a result of one lane closures during construction. A TMP would be prepared that would provide accommodation for police, fire, emergency, and medical services in the local area during construction (AMM TRANS-1 in the Transportation and Traffic section).

3.3.16 Recreation

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

CEQA SIGNIFICANCE DETERMINATIONS FOR RECREATION

There are no recreational facilities within the Project limits. The nearest public park is the Black Point Boat Launch, located east of the Project at the Petaluma River. Stone Tree Golf Club is located adjacent to SR 37 south of the Project limit. Deer Island Preserve and Open Space is a public park, located approximately 0.25 mile north of the Project limits. Vince Mulroy County Park is located 0.4 mile south of the Project limits. The San Pablo Bay National Wildlife Refuge is located adjacent to SR 37, 0.5 mile east of the Project limits. Recreational facilities in the Project area are shown on Figure 3-2.

a) No Impact

The proposed Project would not increase the use of any existing recreational facilities. There would be no impact.

b) No Impact

The proposed Project does not include recreational facilities or require the construction or expansion of recreational facilities. There would be no impact.

3.3.17 Transportation

Would the project:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR TRANSPORTATION

SR 37 runs 21 miles along the northern shore of San Pablo Bay, from U.S. Route 101 in Novato through northeastern Marin County, and through southern Sonoma and Solano counties, to Interstate 80 in Vallejo. The Project on SR 37 is approximately 3 miles long and located at the western end of SR 37 within Marin County. Within the Project limits, SR 37 is a conventional highway with two lanes of travel in each direction. SR 37 at the Project area is currently listed as being eligible for State Scenic Highway designation.

There are no bicycle, pedestrian, or bus stop facilities along SR 37 within the Project limits. The Black Point Park & Ride parking lot is located south of Atherton Avenue, adjacent to the Project limits north of SR 37. The Project includes upgrade of two curb ramps located near PM 13.8 at the eastbound SR 37 Atherton Avenue offramp.

The MTC, which functions as both the state-designated Regional Transportation Planning Agency and federally designated Metropolitan Planning Organization, is responsible for regional transportation planning. MTC’s Plan Bay Area 2050 serves as the San Francisco Bay Area’s Regional Transportation Plan and Sustainable Communities Strategy (ABAG/MTC 2021).

Local transportation planning includes the Transportation Authority of Marin (TAM), which is designated as both the Congestion Management Agency and the Transportation Sales Tax Authority for Marin County. TAM is responsible for managing various transportation projects and programs in Marin County, receiving federal, state, regional, and local funds, while working closely with all 11 cities and towns and the County.

The proposed Project would not conflict with any plans, ordinances, or policies related to circulation systems, including the TAM Congestion Management Program (TAM 2019).

a) No Impact

The Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. The Project would maintain and improve existing SR 37, but not increase the capacity of the roadway.

The Project would maintain all existing roadway features and would not permanently alter the circulation system. Curb ramps that would be upgraded at the Atherton Avenue off-ramp would be temporarily unavailable for public use during construction.

As discussed in AMM TRANS-1, a TMP would be developed to minimize potential effects from construction to motorists. The TMP would include elements such as detour and haul routes, one-way traffic control, flaggers, and phasing, to reduce impacts to local residents and emergency and medical service providers. The TMP would also ensure access to businesses in the local area is maintained. Therefore, there would be no permanent impact to components of the transportation system.

b) No Impact

The Project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). The Project would have no permanent impact on vehicle miles traveled. Under Section 15064.3, subdivision b, transportation projects that have no impact on vehicle miles traveled should be presumed to cause no impact on transportation.

c) No Impact

The Project would not increase hazards because of a geometric design feature. The Project does not include any design features or construction elements (such as sharp curves or dangerous intersections) that would substantially increase hazards. There would be no impact.

d) Less than Significant Impact

The Project would not result in inadequate emergency access. The Project could cause short-term, localized, traffic congestion and delays, resulting from temporary closures of one lane of SR 37 throughout the Project corridor. One-way traffic control would be required during construction. Detours would not be required during construction.

Under the TMP (AMM TRANS-1), medical and emergency vehicles would be able to continue to use routes along the Project corridor to serve fire, medical, and law enforcement purposes. Flaggers would give priority to emergency vehicles. The impact would be less than significant.

Avoidance and Minimization Measure

AMM TRANS-1: Traffic Management Plan: To minimize potential effects from construction activities to motorists, bicyclists, or pedestrians using local streets, a TMP will be developed by Caltrans and implemented throughout construction. The TMP will include public information, motorist information, incident management, construction, and alternate routes. The TMP will also include elements, such as detour and haul routes, one-way traffic control, flaggers, and phasing, to reduce impacts to local residents as much as feasible and to maintain access to businesses in the local area. The TMP will also provide access for police and emergency service providers. Lane closures will be planned in coordination with Caltrans, Marin County, and Novato, and will include notices to emergency service providers, and the public in advance.

3.3.18 Tribal Cultural Resources

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

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

CEQA SIGNIFICANCE DETERMINATIONS FOR TRIBAL CULTURAL RESOURCES

Caltrans contacted the Native American Heritage Commission on March 17, 2021, requesting that they conduct a search of their Sacred Land Files to determine if there were known tribal resources within or near the Project area. The Native American Heritage Commission responded on March 26, 2021, with a list of two Native American individuals and organizations for further consultation, and negative results from the Sacred Land File search. On March 29, 2021, and September 14, 2021, emails requesting input, along with a Project area map, were emailed to Ms. Buffy McQuellin, Tribal Historic Preservation Officer Federated Indians of Graton Rancheria, and to Chairperson Duncan at Guidiville Indian Rancheria. In September 2021, follow-up phone calls were attempted to both organizations; no responses were received (Caltrans 2021b).

a-b) No Impact

The Project would not cause a substantial adverse change in the significance of a tribal cultural resource. No tribal cultural resources were reported in record searches; no response was received from Native American groups or individuals regarding the presence of tribal cultural resources. Based on this report, there would be no impact.

Project Features CULT-1 and CULT-2, discussed under Cultural Resources, would be implemented if cultural resources or human remains are discovered during Project construction.

3.3.19 Utilities and Service Systems

Would the project:

Question	CEQA Determination
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	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?	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR UTILITIES AND SERVICE SYSTEMS

High-voltage transmission lines and towers parallel SR 37, and wooden utility poles with overhead lines run adjacent to the unpaved shoulder near the Project limits.

a) Less than Significant Impact

The proposed Project would not result in the construction of new or expanded utilities. Utility conflicts are not anticipated, and utility verification would be conducted during later Project phases. The only anticipated digging would be at the settlement correction work and at curb ramp replacements, where potential utility conflicts may arise. If needed, Caltrans would coordinate with the appropriate utility provider; therefore, the impact would be less than significant.

b, c, d, e) No Impact

The proposed Project would not generate a demand for potable water supplies or the services of a wastewater treatment provider. Therefore, there would be no impact.

The proposed Project would not result in any substantial demands for solid waste disposal and would comply with federal, state, and local statutes regarding the disposal of solid waste. Implementation of Project Features UTI-1 and UTI-2 would require the proper disposal of construction trash. There would be no impact.

Project Features

Caltrans would incorporate its standard measures into the Project to offset or avoid potential impacts to utilities and service systems. These features include those described in the following paragraphs.

Project Feature UTI-1: Trash Management. All food-related trash items, such as wrappers, cans, bottles, and food scraps, would be disposed of in closed containers and removed by the contractor at least once daily from the Project limits. A trash reduction system would also be developed by the contractor, approved by Caltrans, and implemented per Caltrans Statewide National Pollution Discharge Elimination System Permit and San Francisco RWQCB Cease and Desist Order.

Project Feature UTI-2: Treated Wood Waste. Wood removed from metal beam guardrails would be considered treated wood waste and be disposed of by the contractor pursuant to Caltrans standard specifications.

3.3.20 Wildfire

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

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

CEQA SIGNIFICANCE DETERMINATIONS FOR WILDFIRE

The Project is located within both State Responsibility Areas and Local Responsibility Areas for wildfire prevention and suppression. Areas of the Project within the State Responsibility Areas are located at the eastern end of the Project corridor on SR 37, and are within a high fire hazard severity zone (CalFire 2008). Areas within Local Responsibility Areas are primarily located within the western portions of the SR 37 Project corridor, west of Atherton Avenue, and within a moderate fire hazard severity zone (CalFire 2007).

a) Less than Significant Impact

The Project would not substantially impair an adopted emergency response plan or emergency evacuation plan. A TMP (AMM TRANS-1 in the Transportation and Traffic section) would be developed during later Project phases that would identify traffic diversion, staging, and alternative routes. Emergency response times are not anticipated to change during construction because the TMP would provide measures to ensure priority for emergency vehicles during one-way traffic control. The TMP would provide instructions for response and evacuation in an emergency. In addition, the Project would not conflict with any other emergency response or evacuation plan. The impact would be less than significant.

b, c, d) No Impact

The Project would not exacerbate wildfire risks, require the installation or maintenance of infrastructure that may exacerbate wildfire risk, or expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes. Caltrans proposes to rehabilitate existing facilities on SR 37; therefore, it does not involve occupation or habitable structures, and does not include the installation of associated infrastructure that would exacerbate wildfire risk. There would be no impact.

3.3.21 Mandatory Findings of Significance

Question	CEQA Determination
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	Less than Significant Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	Less than Significant Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Less than Significant Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR MANDATORY FINDINGS OF SIGNIFICANCE

a) Less than Significant Impact

The Project would not 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, or substantially reduce the number of or restrict the range of a rare or endangered plant or animal.

The Project would result in temporary, minor, and construction-related impacts; however, with the implementation of the Project Features and AMMs (Section 3 and Appendix B), these potentially significant impacts would be reduced to less than significant levels.

b) Less than Significant Impact

The Project involves the replacement of existing infrastructure on SR 37 throughout the Project corridor. Current or future SHOPP projects, located on SR 37 in the Project vicinity, are listed in Table 3-3.

Table 3-3 SHOPP Program Projects along SR 37 in the Project Vicinity

Project Name	Location	Characteristics	Status
SR 37 Flood Reduction Project and SR 37 Resilience Project	SR 37 from PMs 0.0 to 3.9 and 11.2 to 14.6	Raise SR 37 on embankment, replace Novato Creek Bridge, and modify Simonds Slough, Atherton Undercrossing, and Petaluma River Bridge.	Under Environmental Review Phase
SR 37 Petaluma River Bridge Preservation	SR 37 from PMs 14.5 to 15.0	Rehabilitate bridge deck; replace bridge fender system, bridge scour protection, railing upgrade.	Under Environmental Review Phase
Reconstruct Intersection of SR 37 and SR 121	SR 37 from PMs 3.8 to 4.0	Reconstruct intersection reconstruction.	Under Environmental Review Phase
SR 37 Lane Extension and Railroad Crossing at Tolay Creek	SR 37 from PMs 3.8 to 4.0 and 3.9 to 4.1	Widen SR 37, widen Tolay Creek Bridge, and extend the existing median barrier.	Under Environmental Review Phase
SR 37 Traffic Congestion Relief Project	SR 37 from PMs 3.9 to 6.2 and 0.0 to 7.4	Widen SR 37 and upgrade roadway.	Under Environmental Review Phase
SR 37 Pedestrian Enhancements at Wilson Avenue and Fairgrounds Drive	Various	Complete pedestrian enhancement project.	Under Environmental Review Phase
Fairgrounds Drive Interchange Improvements	SR 37 from PMs 10.6 to 11.2	Improve roadway along portion of Fairgrounds Drive.	Under Environmental Review Phase
SR 37 Corridor Sea Level Rise and Complete Streets (U.S. 101 to SR 29)	SR 37 from PMs 11.2 to 14.6, 0.0 to 6.2 and 0.0 to Ramp 9.6	Address sea-level rise and recurring flooding, while including complete streets features to address multi-modal bicycle and pedestrian use.	Under Environmental Review Phase

In analyzing the Project’s potential cumulative environmental effects, the analysis determines which resources would be significantly impacted by the Project and whether there could be a detrimental condition or deterioration in health of a resource within the context of impacts from past, present, and other reasonably foreseeable future actions. The analysis determines whether, collectively, the Project and the foreseeable condition combine to result in a cumulative impact.

The Project involves the rehabilitation of existing infrastructure along a transportation corridor. The Project would occur primarily within the Caltrans right of way with the additional use of a TCE during construction for replacement of a curb ramp. The

Project would not convert lands to new or different uses, increase roadway capacity, induce growth, or otherwise change land use patterns. The Project would not result in long-term, adverse environmental effects, and so would not contribute to cumulative environmental impacts. The analysis presented in this IS/ND identifies temporary construction-related impacts on aesthetics, air quality, biological resources, energy, geology/soils, GHG emissions, hazards/hazardous materials, hydrology/water quality, noise, transportation/traffic, utilities/service systems, and wildfire. These impacts are anticipated to be minor and incremental in nature and not cumulatively considerable when considering the entire SR 37 corridor and region.

Other planned highway improvement projects along SR 37 (Table 3-3) are anticipated to occur within a similar timeframe. These projects could interact and contribute to a need to develop a comprehensive traffic management plan. Caltrans routinely coordinates with regional transportation managers and local agencies to minimize impacts in the region resulting from construction of multiple planned projects. The short duration and limited scope of this Project would not contribute to substantial cumulative environmental impacts; and Project-related impacts to resources would be reduced with the proper implementation of Project features and AMMs. Therefore, the impact would be less than significant.

c) Less than Significant Impact

This project would not adversely affect human beings either directly or indirectly. Project impacts are anticipated to be minor and result mostly from construction-related delays and traffic management. Intermittent night work could occur. Daytime work would occur throughout the proposed Project corridor with the potential to impact residences and businesses in proximity to the Project area; however, implementation of Project features and AMMs would address dust-, noise-, and traffic-related impacts. Temporary construction-related activities would result in less than significant environmental impacts to human beings.

Chapter 4 Comments and Coordination

To date, public and agency coordination consists of the following:

4.1 Community Outreach

The document, maps, and Project information are available for review and download at www.sr37corridorprojects.com. Additionally, the document will be made available at the Novato Library, 1720 Novato Boulevard, and the South Novato Library, 931 C Street, in Novato. The deadline for submission of comments on the IS/ND is April 30, 2022.

4.2 Consultation and Coordination with Public Agencies

Consultation with agencies occurred during the environmental evaluation process. A list of coordination activities and contacts is provided in Table 4-1.

Table 4-1. Agency Coordination Meetings and Contacts

Organization(s)	Date	Topic
Native American Heritage Commission	March 17, 2021	Requested a search of Sacred Lands File
	March 26, 2021	The Native American Heritage Commission responded with list of Native American parties
Native American Consultation	March 29, 2021, and September 14, 2021	Sent emails to Federated Indians of Graton Rancheria and the Guidiville Indian Rancheria requesting input
	September 2021	Followed up with phone calls to the Federated Indians of Graton Rancheria and the Guidiville Indian Rancheria
Sonoma County Transportation Authority	January 6, 2022, October 7, 2021, and June 6, 2021.	SR 37 Policy Committee meetings including discussion of Highway 37 Caltrans SHOPP Projects

Chapter 5 List of Preparers

The primary people responsible for contributing to, preparing, and reviewing this report are listed in Table 5-1.

Table 5-1. List of Preparers and Reviewers

Organization	Name	Role
Caltrans	Melanie Brent	Deputy District Director, Environmental Planning and Engineering
Caltrans	Lindsay Vivian	Chief, Office of Environmental Analysis
Caltrans	Inho “Eddie” Kim	Project Management – North (Marin)
Caltrans	Helen Blackmore	Branch Chief, Architectural History
Caltrans	Robert Blizard	Branch Chief, Office of Biological Sciences and Permits
Caltrans	Michael Dubrovsky	Project Engineer, Design
Caltrans	Chris Else	Landscape Associate
Caltrans	Joaquin Pedrin	Branch Chief, Office of Landscape Architecture
Caltrans	Arnica MacCarthy	Branch Chief, Office of Environmental Analysis
Caltrans	Wilfung Martono	Branch Chief, Senior Transportation Engineer, Stormwater Design D
Caltrans	Mark Morancy	District Branch Chief, Office of Hydraulic Engineering
Caltrans	Chris Ridsen	Branch Chief, Geology Services Branch B
Caltrans	Kathryn Rose	Branch Chief, Archaeology
Caltrans	Shilpa Mareddy	Branch Chief, Air Quality and Noise
Caltrans	Marisol Marin	Hazardous Waste Associate
Caltrans	Mojgan Oosoli	Branch Chief, Stormwater Design
Caltrans	Charles Palmer	Associate Environmental Planner, Architectural History
Caltrans	Chris Ridsen	Branch Chief, Office of Geotechnical Design
Caltrans	Kathryn Rose	Senior Environmental Planner, Office of Cultural Resources
Caltrans	Himabindu Samudrala	Project Engineer, Design
Caltrans	Britt Schlosshardt	Environmental Planner, Office of Cultural Resources
Caltrans	Jessica Thaggard	Biologist, Biological Sciences and Permits
Caltrans	Ganga Tripathi	Water Quality Analyst
Caltrans	Kenny Tsan	Air Quality and Noise Analyst
Caltrans	Nandini Vishwanath	Branch Chief, Hazardous Waste
Jacobs	Lynne Hosley	Program Manager
Jacobs	David Carlson	Senior Environmental Reviewer

Organization	Name	Role
Jacobs	Loretta Meyer	Environmental Planner
Jacobs	Julie Petersen	Environmental Planner
Jacobs	Misha Seguin	Biologist
Jacobs	Karen Dolan	Geographic Information System
Jacobs	Ed Moon	Geographic Information System
Jacobs	Clarice Ericsson	Publishing Technician
Jacobs	Austen Sandifer	Editor

Chapter 6 Distribution List

The Initial Study with proposed Negative Declaration will be circulated by March 31, 2022 to the following agencies and government officials.

Agencies

U.S. Fish and Wildlife Service

U.S. Army Corps of Engineers

State Water Resources Control Board

San Francisco Bay Regional Water Quality Control Board

California Department of Fish and Wildlife

California Department of Parks and Recreation

San Francisco Bay Conservation and Development Commission

Bay Area Air Quality Management District

Governor's Office of Planning and Research

Transportation Authority of Marin

Sonoma County Transportation Authority

Solano County Transportation Authority

Office of Planning and Research

Marin County Clerk

City of Novato Planning Division

Elected Officials

Senator Dianne Feinstein

Senator Alex Padilla

Senator Mike McGuire

Congressman Jared Huffman

Assembly Member Marc Levine

Supervisor Judy Arnold, Marin County District 5

Sheriff Robert T. Doyle

Mayor Eric Lucan, City of Novato

Appendix A Title VI Policy Statement

DEPARTMENT OF TRANSPORTATION

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September 2021

NON-DISCRIMINATION POLICY STATEMENT

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

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<https://dot.ca.gov/programs/civil-rights/title-vi>.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Civil Rights, at 1823 14th Street, MS-79, Sacramento, CA 95811; PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 324-8379 (TTY 711); or at Title.VI@dot.ca.gov.

A handwritten signature in blue ink, appearing to read 'Toks Omishakin'.

Toks Omishakin
Director

Appendix B Summary of Project Features and Avoidance and Minimization Measures

Project Features

Project Feature AQ-1: Control Measures for Construction Emissions of Fugitive Dust. Dust control measures would be implemented to minimize airborne dust and soil particles generated from construction. For disturbed soil areas, the use of tackifier to control dust emissions would be included in the construction contract. Any material stockpiles would be watered, sprayed with tackifier, or covered to minimize dust production and wind erosion.

Project Feature BIO-1: Documentation at Project Site. A permit compliance binder would be maintained at the construction site at all times and presented to resource agency (U.S. Army Corps of Engineers [USACE], NOAA Fisheries, U.S. Fish and Wildlife Service [USFWS], Regional Water Quality Control Board [RWQCB], San Francisco Bay Conservation and Development Commission, and/or CDFW) personnel upon request. The permit compliance binder would include a copy of all original permits and agreements, and any extensions and amendments to the permits and agreements.

Project Feature BIO-2: Work According to Documents. Except as they are contradicted by measures within the permits and agreements, all work would be conducted in conformance with the Project description in the permits and agreements and the AMMs provided in the permits and agreements.

Project Feature BIO-3: Worker Environmental Awareness Training. Prior to the start of construction, a biologist would provide a training session for all work personnel to identify any sensitive species that may be in the area, their basic habits, how they may be encountered in their work area, and procedures to follow when they are encountered. Any personnel joining the work crew later would receive the same training before beginning work. Upon completion of the education program, employees would sign a form stating they attended the program and understand all protection measures. A pamphlet that contains images of sensitive species that may occur within the Project, environmentally sensitive areas (ESAs) within the Project site, and notes key avoidance measures, as well as employee guidance would be given

to each person who completes the training program. These forms would be made available to the resource agencies upon request

Project Feature BIO-4: Mark Environmentally Sensitive Areas. Before construction begins, ESAs would be clearly delineated using high-visibility orange fencing, flagging, or similar markings to delineate sensitive habitats. The ESA marking would remain in place throughout construction. It may be removed during the wet season (and subsequently re-installed), if needed to prevent materials from being washed away. The final Project plans would depict all locations where ESA markings would be installed and how the markings would be installed. The bid solicitation package special provisions would clearly describe acceptable marking material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbing activities within ESAs. ESA markings would be maintained in good repair throughout the Project as needed.

Project Feature BIO-5: Wildlife Exclusion Fencing. Before starting construction, wildlife exclusion fencing (WEF) would be installed at Simonds Slough, where wildlife could enter the Project site. Locations of the WEF would be determined in coordination with the onsite biologist. WEF installation locations would be identified during the plans, specifications, and estimate phase of the Project; the final plans would depict the locations where WEF would be installed and how WEF will be assembled/constructed. The special provisions in the bid solicitation package would clearly describe acceptable WEF material and proper WEF installation and maintenance. The WEF remain in place throughout the Project, while construction activities are ongoing; the WEF would be regularly inspected for stranded animals and fully maintained. The WEF be removed following completion of construction activities or when construction is completed at that location at the discretion of the Project biologist.

Project Feature BIO-6: Nesting Bird Surveys. If Project activities occur between February 1 and September 30, then a pre-construction survey(s) would be conducted for nesting birds no more than 3 days before construction. If active nests are found, then an appropriate buffer would be established, and the nest would be monitored for compliance with the Migratory Bird Treaty Act and California Fish and Game Code (FGC) 3503.

Project Feature BIO-7: Active Nest Buffers. If an active bird nest is found during construction activities, then the following ESA buffers would be established: if an

active raptor nest is observed, a 300-foot-wide ESA buffer would be implemented to avoid impacting the young until they have fledged; if an active nest of non-raptor migratory birds is observed, a 50-foot-wide ESA buffer would be implemented to protect the young until they have fledged, or as otherwise determined through consultation with USFWS and CDFW regarding appropriate action to comply with the Migratory Bird Treaty Act and California FGC 3503.

Project Feature BIO-8: Construction Site Management Practices. The following site restrictions would be implemented to avoid or minimize potential impacts on sensitive biological resources:

- Enforce a speed limit of 15 miles per hour for Project vehicles in unpaved portions of the site to reduce dust and excessive soil disturbance.
- Locate construction access, staging, storage, and parking areas within the Caltrans right of way and outside of any designated ESA to the extent practicable. Access routes, staging and storage areas, and contractor parking will be limited to the minimum necessary to construct the proposed Project. Clearly mark routes and boundaries of roadwork before initiating construction.
- Certify, to the maximum extent practicable, borrow material is non-toxic and weed free.
- Enclose food and food-related trash items in sealed trash containers and remove them from the site at the end of each day.
- Prohibit pets from entering the Project area during construction.
- Prohibit firearms within the Project site, except for those carried by authorized security personnel or local, state, or federal law enforcement officials.

Project Feature BIO-9: Invasive Weed Control. To reduce the spread of invasive, nonnative plant species and minimize the potential decrease of palatable vegetation for wildlife species, Caltrans would comply with Executive Order 13112. This order is provided to prevent the introduction of invasive species and provide for their control to minimize the economic, ecological, and human health effects. If noxious weeds are disturbed or removed during construction-related activities, the contractor would be required to contain the plant material associated with these noxious weeds and dispose of the material in a manner that would not promote the spread of the species. The contractor would be responsible for obtaining all permits, licenses, and

environmental clearances for properly disposing of materials. Areas subject to noxious weed removal or disturbance would be replanted with fast-growing native grasses or a native erosion control seed mixture. Where seeding is not practical, the target areas within the Project area would be covered to the extent practicable with heavy black plastic solarization material until the end of the Project.

If work occurs in sensitive habitats, vehicles and equipment would be thoroughly cleaned before arriving on the site to prevent the spread of noxious weeds from other locations.

Project Feature BIO-10: Restore Disturbed Areas. Temporarily disturbed areas would be restored to the maximum extent practicable. Exposed slopes and bare ground would be reseeded with native grasses to stabilize and prevent erosion. Where disturbance includes the removal of trees and woody shrubs, native species would be replanted, based on the local species composition.

Project Feature BIO-11: Bat Protection. A habitat assessment would be conducted for potentially suitable bat roosting habitat prior to construction activities. If the habitat assessment reveals any structures are suitable roosting habitat for bats, then the appropriate exclusionary measures would be implemented prior to construction during the period between March 1 and April 15, or August 31 and October 15. Potential avoidance may include exclusionary blocking or filling potential cavities with foam, visual monitoring, and/or staging Project work to avoid bats. If bats are known to use the structures, then exclusion netting would not be used.

Bats would not be disturbed without specific notice to, and consultation with, CDFW.

Project Feature BIO-12: Prevent Inadvertent Entrapment. To prevent inadvertent entrapment of animals during construction, all excavated, steep-walled holes or trenches more than 1-foot deep would be covered at the close of each working day, by plywood or similar materials, or provided with one or more escape ramps constructed of earthen fill or wooden planks at an angle no greater than 30 degrees. Before such holes or trenches are filled, they would be thoroughly inspected for trapped animals. Pipes, culverts, or similar structures stored in the Project area overnight would be inspected before they are subsequently moved, capped, or buried.

Project Feature BIO-13: Night Lighting. Some nighttime work is anticipated for this Project. For unavoidable nighttime work, all lighting would be shielded and

directed downwards towards the active construction area to avoid exposing nocturnal wildlife to excessive glare.

Project Feature BIO-14: Agency Approved Biologist. A biologist approved by USFWS and CDFW would conduct pre-construction surveys for federally and state-listed species, and the biologist would be present during construction activities, including vegetation clearing and grubbing, as required by the resource agencies. If, at any point, any listed species is discovered within the Project limits, the agency-approved biologist, through the Resident Engineer or his/her designee, would halt all work within 50 feet of the animal and contact the corresponding agency (USFWS or CDFW) to determine how to proceed.

Project Feature BIO-15: Construction Noise. Construction noise limitations, as they relate to listed species, would be determined through consultation with state and federal agencies.

Project Feature BIO-16: Stop Work Authority. Through the Resident Engineer or their designee, the Project biologist(s) would have the authority to stop Project activities to minimize take of listed species or if he/she determines that any permit requirements are not fully implemented. Caltrans would provide appropriate notifications based on language in the permits and agreements to agency(s) with jurisdiction.

Project Feature BIO-17: Discovery of Dead Special-status Species. Immediately upon discovery of any dead, injured, or entrapped special-status species regulated by USFWS, NOAA Fisheries, or CDFW, Caltrans would provide appropriate notifications based on language in the permits and agreements to agency(s) with jurisdiction.

Project Feature BIO-18: Wildlife Species Relocation. When listed wildlife species (that do not have state fully protected status) are present and it is determined that they could be injured or killed by construction activities, the Project biologist, in coordination with the appropriate state and federal wildlife agencies, and as outlined within the applicable permits, would identify appropriate methods for capture, handling, exclusion, and relocation of individuals that could be affected.

Project Feature CULT-1: Discovery of Cultural Resources. If previously unidentified cultural resources are unearthed during construction, work would be

halted in that area until a qualified archaeologist can assess the significance of the discovery.

Project Feature CULT-2: Discovery of Human Remains. If remains are discovered during dredging activities, all work within 60 feet of the discovery would halt and Caltrans Cultural Resource Studies Office would be called. Caltrans Cultural Resources Studies Office Staff would assess the remains and, if they are determined to be human, would contact the County Coroner, per Public Resources Code, Sections 5097.98, 5097.99, and 7050.5 of the California Health and Safety Code. If the coroner determines the remains to be Native American, then the coroner would contact the Native American Heritage Commission, which would assign a Most Likely Descendant. Caltrans would consult with the Most Likely Descendant on treatment and reburial of the remains. Further provisions of Public Resources Code, Section 5097.98 would be followed as applicable.

Project Feature Energy-1: Minimize Energy Consumption from Construction Activities. The use of construction BMPs would minimize energy consumption from construction activities, including, but not limited to: (1) limit idling of vehicles and equipment; (2) use solar power as a power source, if feasible; (3) ensure regular maintenance of construction vehicles and equipment; and (4) if feasible, recycle nonhazardous waste and excess materials to reduce disposal offsite.

Project Feature GHG-1: Control Measures for Greenhouse Gases.

Implementation of Caltrans Standard Specifications, such as complying with air-pollution-control rules, regulations, ordinances, and statutes that apply to work performed under the contract and the use of construction BMPs, would result in reducing GHG emissions from construction activities. These BMPs would include, but not be limited to: (1) ensure regular maintenance of construction vehicle and equipment; (2) limit idling of vehicles and equipment onsite; and (3) recycle nonhazardous waste and excess material if practicable.

Project Feature UTI-1: Trash Management. All food-related trash items, such as wrappers, cans, bottles, and food scraps, would be disposed of in closed containers and removed by the contractor at least once daily from the Project limits. A trash reduction system would also be developed by the contractor, approved by Caltrans, and implemented per the Caltrans Statewide National Pollution Discharge Elimination System Permit and San Francisco RWQCB Cease and Desist Order.

Project Feature UTI-2: Treated Wood Waste. Wood removed from metal beam guardrails would be considered treated wood waste and be disposed of by the contractor pursuant to Caltrans standard specifications.

Avoidance and Minimization Measures

AMM AES-1: Minimize Construction Appearance. Visual impacts during construction will be reduced by measures such as storing unsightly material and equipment in staging areas beyond direct view of the motoring public to the extent practicable.

AMM AES-2: Avoid Impacts to Vegetation. Staging areas will not be allowed in any area where the removal of trees or native vegetation will be required. Avoid impacts to existing vegetation to the greatest extent practicable.

AMM AES-3: Revegetation of Disturbed Areas. Disturbed soils will be revegetated by applying erosion control seeding to all areas of disturbed soil.

AMM AES-4: Impacts to existing trees and shrubs, including associated tree roots, will be avoided where feasible. The Caltrans Office Landscape Architecture and Office of Biological Sciences and Permits will identify specific locations and BMPs during later Project phases, and include appropriate information in the plans and specifications.

AMM AES-5: Directional Lighting. Use of directional lighting and/or shielding for any night work will be implemented to reduce light trespass affecting motorists.

AMM BIO-19: California Red-legged Frog Habitat Work Window. These work windows are applicable only to those portions of the Project area where suitable California red-legged frog habitat occurs (such as, the staging area adjacent to Simonds Slough). Areas that are not considered habitat (including paved surfaces and other hardscape) are accessible for construction work year-round (unless there are other seasonal restrictions outlined in a federal or state permit).

Initial ground disturbance (that is, ground disturbance in areas that have not been previously disturbed in such a way that removes or destroys access to burrows and migratory habitat, or areas that have not previously been enclosed with WEF) in California red-legged frog upland dispersal habitat, as identified by a USFWS-approved Project biologist, will be timed to occur between April 15 and October 31.

AMM BIO-20: California Red-Legged Frog Pre-Construction Surveys. Pre-construction surveys for the California red-legged frog will be conducted by the Project biologist within 14 calendar days of the initiation of Project activities in suitable upland and aquatic habitat prior to ground-disturbing activities, vegetation removal, and WEF installation. Surveys will be conducted as outlined in the 2005 USFWS species survey guidelines for California red-legged frog. Access to habitat during surveys may be limited by appropriate safety measures and protocols available at https://www.fws.gov/ventura/docs/species/protocols/crlf/caredleggedfrog_survey-guidelines.pdf. Pre-construction surveys will include:

- Foot surveys will be conducted of potential frog habitat within the Project limits and accessible adjacent areas (within at least 50 feet of the Project limits).
- Potential cover sites (burrows, rocks, soil cracks, vegetation, and other potential refuge habitat) and any areas of disturbed soil for signs of the California red-legged frog will be investigated.

Native vertebrates found in cover sites within the Project limits will be documented and, if handling is allowed, relocated to an adequate cover site in the vicinity. Species that cannot be relocated because of special protection status will be addressed in coordination with the appropriate agency(s) with jurisdiction.

AMM BIO-21: California Red-Legged Frog Monitoring Protocols. During construction in and near potential California red-legged habitat, the following protocols will be observed by the Project biologist during construction monitoring:

- Within 24 hours prior to initial ground-disturbing activities, portions of the Project limits where potential California red-legged frog habitat has been identified will be surveyed by a Project biologist(s) to clear the site of frogs moving above ground or taking refuge in burrow openings or under materials that could provide cover.
- A Project biologist(s) will be present during all initial ground-disturbing activities and vegetation removal in suitable refugia habitats for the California red-legged frogs to monitor the removal of the top 12 inches of topsoil.
- If potential aestivation burrows are discovered, the burrows will be flagged for avoidance.

- After a rain event, and prior to construction activities resuming, a qualified biologist will inspect the work area and all equipment/materials for the presence of California red-legged frog.
- Upon discovery of a California red-legged frog individual(s) in an active construction area, all work will cease within a 50-foot radius of the frog. The frog will be allowed to leave the site on its own; or if the frog(s) does not leave on its own, it will be relocated as close to the Project site as feasible and with permission from the property owner, and placed in a natural burrow by a Project biologist with the appropriate USFWS 10(a)1(A) handling permit.

The USFWS will be notified by phone and email within one working day of any California red legged frog discovery in the Project area.

AMM BIO-22: California Ridgway’s Rail and California Black Rail Pre-Construction Survey. If California Ridgway’s rail or California black rail habitat is present within 700 feet of the immediate Project area and work would occur during the rail nesting season (February 1 through August 31), then a pre-construction survey by a USFWS 10(a)1(A) permit holder for California Ridgway’s rail will be conducted to determine whether the species are present. Survey requirements and timing will be determined in consultation with USFWS and CDFW.

If California Ridgway’s rail and/or California black rail are detected during pre-construction surveys, then Project activities will not occur within 700 feet of an identified detection (or smaller distance if approved by USFWS and CDFW) during the rail nesting season. If rail activity is detected within the 700-foot buffer, immediate consultation with USFWS and CDFW will be required.

AMM BIO-23: California Ridgway’s Rail and California Black Rail Monitoring.

The following monitoring protocols for California Ridgway’s rail and California black rail will be implemented, where appropriate:

- A USFWS- and CDFW-approved biological monitor will be present onsite to monitor for California Ridgway’s rail and California black rail during the operation of large equipment within 300 feet of salt marsh areas.
- During construction the Project biologist will be onsite at Novato Creek to periodically inspect the site to verify that habitat protection measures remain effective.

AMM BIO-24: Western Burrowing Owl Pre-Construction Surveys. Pre-construction surveys will be conducted where western burrowing owl nesting habitat has potential to occur within 500 feet of work areas. Survey protocol will be as follows:

- Conduct 4 survey visits.
- Conduct an initial visit between February 15 and April 15.
- Conduct a minimum of three subsequent surveys with at least 3 weeks between visits, with at least one visit to occur after June 15.
- Conduct an additional take avoidance survey no less than 14 days prior to initiating ground-disturbing activities where work will occur.

AMM BIO-25: Western Burrowing Owl Nest Avoidance. If the active nest of a western burrowing owl is discovered during pre-construction surveys or biological monitoring, the following initial buffers will be implemented:

- From April 1 through October 15, establish a 660-foot (200-meter), no-work buffer from the active nest site.
- From October 16 through March 31, establish a 164-foot(50-meter), no-work buffer from the active nest site.
- Buffers and minimization measures (including, blinds, and screens) may be adjusted or implemented after coordination with CDFW.

AMM BIO-26: Bat Monitoring Protocols. If a bat or bat colony is observed nesting or roosting in active construction areas at the Project site, then construction activities that would imminently harm bats will stop within 150 feet of the roosting location until a qualified biologist develops a site-specific bat avoidance plan to implement at the roosting site. Once the plan is implemented, Project activities may resume with Project biologist oversight at that location.

AMM WQ-1: Water Quality Best Management Practices. This Project will require a 401 Permit from the SF-RWQCB. It is anticipated that the RWQCB permit will require a SWPPP, which will provide guidance on erosion control BMPs to be implemented to minimize wind- or water-related erosion. These BMPs will also be implemented via language in the *Construction Site Best Management Practices*

(BMPs) Manual (Caltrans 2017), which provides guidance for including provisions in all construction contracts to protect sensitive areas, and prevent and minimize stormwater and non-stormwater discharges. BMPs will include wind erosion controls (such as temporary covers, hydraulic mulch, hydroseeding and wood mulching), and drainage inlet protection.

AMM WQ-2: Design Pollution Prevention Temporary Construction BMPs. The BMPs recommended for potential temporary construction impacts resulting from the project are: (1) job site management (2) sediment control (3) waste management and materials pollution control, (4) non-storm water management, (5) stockpile management, (6) tracking controls, (7) wind erosion controls, and (7) drainage inlet protection.

AMM WQ-3: Design Pollution Prevention BMPs Post Construction: Design pollution prevention BMPs will be applied for post-construction erosion control since the Project involves DSA within Project limits. The BMPs will control post-construction impacts resulting from the Project.

AMM WQ-4: Post-Construction Treatment BMPs. Because new impervious surface is more than 1 acre, post-construction stormwater treatment measures need to be provided for the new impervious surface. Furthermore, because net new impervious surface is more than 1 acre, hydromodification is required to control all the post-construction impacts resulting from the Project.

AMM WQ-5: Full Trash Capture Devices. In accordance with Caltrans District 4 Regional Board 2 Trash Generation Map, there are moderate trash-generation ratings at the SR 37/SR 101 separation and at PM 13.69 (Black Point), which require a full trash control system and full trash capture devices. Therefore, full trash control system and full trash capture devices will be required at these moderate trash-generating areas.

AMM Noise-1: Specifications for Controlling Noise and Vibration. Noise from construction activities is not to exceed 86 A-weighted decibel L_{max}^3 at 50 feet from the Project site from 9:00 p.m. to 6:00 a.m. per 2018 Caltrans Standard Specifications, Section 14-8.02.

³ L_{max} noise descriptor is the highest instantaneous noise level during a specified period; in the noise analysis, that is 1 hour.

AMM Noise-2: Noise Levels During Construction. The following measures would be implemented during construction to reduce noise:

- Restrict the times of overly loud construction activities to between 6:00 a.m. and 9:00 p.m. (except on holidays).
- Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Locate all stationary, noise-generating, construction equipment, such as air compressors, portable power generators, or self-powered lighting systems, as far as practical from noise-sensitive receptors.
- Use quiet air compressors and other quiet equipment where such technology exists.

As practicable, have construction equipment conform to Section 14-8.02, Noise Control, of the latest Caltrans Specifications.

AMM TRANS-1: Traffic Management Plan: To minimize potential effects from construction activities to motorists, bicyclists, or pedestrians using local streets, a TMP will be developed by Caltrans and implemented throughout construction. The TMP will include public information, motorist information, incident management, construction, and alternate routes. The TMP will also include elements, such as detour and haul routes, one-way traffic, flaggers, and phasing, to reduce impacts to local residents as much as feasible and to maintain access to businesses in the local area. The TMP will also provide access police and emergency service providers. Lane closures will be planned in coordination with Caltrans, Marin County, and Novato, and will include notices to emergency service providers, and the public in advance.

Appendix C Species Lists

Table C-1. Special-status Plants With Potential to Occur in BSA

Common Name (Scientific name)	Federal/State/ CDFW/CNPS	Habitat	Suitable Habitat Present in the BSA	Potential to Occur within the BSA	Effect Finding for Federally Listed Species
Napa false indigo (<i>Amorpha californica</i> var. <i>napensis</i>)	-/-1B.2	Broad leaved upland forest, chaparral, cismontane woodland. Openings in forest or woodland or in chaparral. 30 to 735 meters.	Absent	None.	N/A
bent-flowered fiddleneck (<i>Amsinckia lunaris</i>)	-/-1B.2	Cismontane woodland, valley and foothill grassland, coastal bluff scrub. 3 to 795 meters.	Absent	None. Grassland habitat within the BSA is highly disturbed and the only reported occurrence within 5 miles is historic (1938).	N/A
Point Reyes salty bird's- beak (<i>Chloropyron</i> <i>maritimum</i> ssp. <i>palustre</i>)	-/-1B.2	Coastal salt marsh. Usually in coastal salt marsh with <i>Salicornia</i> , <i>Distichlis</i> , <i>Jaumea</i> , <i>Spartina</i> , and similar. 0 to 115 meters.	Present	Low. Suitable habitat is present within the BSA along Novato Creek and the Petaluma River.	N/A
soft salty bird's-beak (<i>Chloropyron molle</i> ssp. <i>molle</i> [<i>Cordylanthus mollis</i> ssp. <i>mollis</i>])	FE/R/1B.2	Coastal salt marsh. In coastal salt marsh with <i>Distichlis</i> , <i>Salicornia</i> , <i>Frankenia</i> , and similar. 0 to 5 meters.	Present	Moderate. Suitable habitat is present within the BSA along Novato Creek and the Petaluma River.	No effect
Tiburon buckwheat (<i>Eriogonum luteolum</i> var. <i>caninum</i>)	-/-1B.2	Chaparral, valley and foothill grassland, cismontane woodland, coastal prairie. Serpentine soils; sandy to gravelly sites. 60 to 640 meters.	Absent	None.	N/A
fragrant fritillary (<i>Fritillaria</i> <i>lillicea</i>)	-/-1B.2	Coastal scrub, valley and foothill grassland, coastal prairie, cismontane woodland. Often on serpentine; various soils reported though usually on clay, in grassland. 3 to 385 meters.	Absent	None.	N/A
congested-headed hayfield tarplant (<i>Hemizonia congesta</i> ssp. <i>congesta</i>)	-/-1B.2	Valley and foothill grassland. Grassy valleys and hills, often in fallow fields; sometimes along roadsides. 5 to 520 meters.	Absent	None. Grassland habitat within the BSA is highly disturbed and annually mowed. Closest recorded occurrence is historic (1946).	N/A
Marin western flax (<i>Hesperolinon</i> <i>congestum</i>)	FT/ST/1B.1	Chaparral, valley and foothill grassland. In serpentine barrens and in serpentine grassland and chaparral. 60 to 400 meters.	Absent	None.	No effect

Common Name (Scientific name)	Federal/State/ CDFW/CNPS	Habitat	Suitable Habitat Present in the BSA	Potential to Occur within the BSA	Effect Finding for Federally Listed Species
Pitkin Marsh lily (<i>Lilium pardalinum</i> ssp. <i>pitkinense</i>)	FE/SE/1B.1	Cismontane woodland, meadows and seeps, marshes and swamps. Saturated, sandy soils with grasses and shrubs. 45 to 65 meters.	Absent	None. There is only one reported occurrence of this species within 5 miles, and it is historic and presumed extirpated.	No effect
Baker's navarretia (<i>Navarretia leucocephala</i> ssp. <i>bakeri</i>)	-/-1B.1	Cismontane woodland, meadows and seeps, vernal pools, valley and foothill grassland, lower montane coniferous forest. Vernal pools and swales; adobe or alkaline soils. 3 to 1,680 meters.	Absent	None.	N/A
Mount Burdell jewelflower (<i>Streptanthus anomalus</i>)	-/-1B.1	Cismontane woodland. Grassy openings, serpentinite. 50 to 150 meters.	Absent	None.	N/A
Mt. Tamalpais bristly jewelflower (<i>Streptanthus glandulosus</i> ssp. <i>pulchellus</i>)	-/-1B.2	Chaparral, valley and foothill grassland. Serpentine slopes. 125 to 670 meters.	Absent	None.	N/A
saline clover (<i>Trifolium hydrophilum</i>)	-/-1B.2	Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. 1 to 335 meters.	Absent	None.	N/A

N/A = not applicable

FE = Endangered: any species in danger of extinction throughout all or a significant portion of its range.

FT = Threatened: any species likely to become endangered within the foreseeable future.

SE = Endangered: any species in danger of extinction throughout all or a significant portion of its range.

R = Rare - not presently threatened with extinction, but may become endangered if conditions worsen (designation for plants only)

ST = Threatened: any species likely to become endangered within the foreseeable future

1B = Plants rare, threatened, or endangered in California or elsewhere

0.1 = Seriously threatened in California (over 80% occurrences threatened/ high degree and immediacy of threat)

0.2 = Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)

Table C-2. Special-status Animal Species with Potential to Occur in the BSA

Animal Type	Common Name (Scientific name)	Federal/State/CDFW/CNPS	General and Microhabitat combined	Habitat Presence	Potential to Occur within the BSA	Effect Finding for Federally Listed Species
Invertebrates	monarch - California overwintering population (<i>Danaus plexippus pop. 1</i>)	FC/-/-	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	Absent	None	No effect
Fish	tidewater goby (<i>Eucyclogobius newberryi</i>)	FE/-/-	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	Present	None. There is one CNDDDB occurrence of this species within Novato Creek from 1945, considered extirpated. The species was not discovered during targeted surveys of Novato Creek by R.O. Swenson during 1994 surveys (USFWS 2005). The USFWS declares this population to be extirpated from San Francisco Bay tributaries (USFWS 2005).	No effect
Fish	CCC steelhead (<i>Oncorhynchus mykiss</i>) DPS and Critical Habitat	FT/-/-	DPS includes all naturally spawned populations of steelhead (and their progeny) in streams from the Russian River to Aptos Creek, Santa Cruz County, California (inclusive). Also includes the drainages of San Francisco and San Pablo Bays.	Present	Moderate. There is suitable habitat present within the BSA. The species has been reported in Novato Creek.	May affect, not likely to adversely affect. No impact to critical habitat.
Fish	CCC coho salmon (<i>Oncorhynchus kisutch</i>) Evolutionarily Significant Unit (ESU) and Critical Habitat	FE/SE/-	Federal listing is for populations between Punta Gorda and the San Lorenzo River. State listing is for populations south of Punta Gorda. Species requires beds of loose, silt-free, coarse gravel for spawning. Also need cover, cool water and enough dissolved oxygen.	Present	None. While suitable habitat is present, the species is extirpated from the San Francisco and San Pablo Bay and their tributaries.	No effect

Animal Type	Common Name (Scientific name)	Federal/State/CDFW/CNPS	General and Microhabitat combined	Habitat Presence	Potential to Occur within the BSA	Effect Finding for Federally Listed Species
Fish	Sacramento River winter-run Chinook salmon (<i>Oncorhynchus tshawytscha</i>) ESU	FE/SE/-	Sacramento River below Keswick Dam. Spawns in the Sacramento River, but not in tributary streams. Requires clean, cold water over gravel beds with water temperatures between 6 and 14 degrees Celsius for spawning.	Absent	None. The Project is located outside of the ESU boundaries. There is no critical habitat designated within the BSA.	No effect
Fish	Sacramento splittail (<i>Pogonichthys macrolepidotus</i>)	-/-/SSC	Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay and associated marshes. Slow moving river sections, dead end sloughs. Requires flooded vegetation for spawning and foraging for young.	Absent	None. The BSA is outside the current range of this species.	N/A
Fish	longfin smelt (<i>Spirinchus thaleichthys</i>)	FC/ST/-	Euryhaline, nektonic, and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15 to 30 parts per thousand but can be found in completely freshwater to almost pure seawater.	Present	Low. San Pablo Bay supports habitat for the species and fish may forage in Novato Creek, however there are no records within Novato Creek.	No effect
Fish	North American green sturgeon (<i>Acipenser medirostris</i>) Southern DPS & Critical Habitat	FT/-/SSC	Spawns in the Sacramento, Klamath, and Trinity Rivers. Spawns at temperatures between 8 to 14 degrees Celsius. Preferred spawning substrate is large cobble but can range from clean sand to bedrock.	Present	Low. There is no spawning habitat present in the BSA and the species does not spawn in the Petaluma River, however the species may be present due to the BSA's proximity to the greater San Pablo Bay where the fish may be migrating to spawn in the Sacramento River. Novato Creek is designated critical habitat for the species.	May affect, not likely to adversely affect. No impact to critical habitat.

Animal Type	Common Name (Scientific name)	Federal/State/ CDFW/CNPS	General and Microhabitat combined	Habitat Presence	Potential to Occur within the BSA	Effect Finding for Federally Listed Species
Amphibians	California giant salamander (<i>Dicamptodon ensatus</i>)	-/-/SSC	Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County, and east to Napa County. Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes.	Absent	None.	N/A
Amphibians	foothill yellow-legged frog (<i>Rana boylei</i>)	-/SE/SSC	Partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	Absent	None.	No effect
Amphibians	California red-legged frog (<i>Rana draytonii</i>)	FT/-/SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Present	Moderate. There is suitable habitat present in the freshwater wetlands (Simonds Slough) in the BSA.	May affect, not likely to adversely affect.
Reptiles	Green Sea Turtle (<i>Chelonia mydas</i>)	FT/-/-	Marine. Completely herbivorous; needs adequate supply of seagrasses and algae.	Absent	None	No effect
Reptiles	Western pond turtle (<i>Emys marmorata</i>)	-/-/SSC	An aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Present	Low. Marginal suitable habitat is present in Simonds Slough within the BSA.	N/A

Animal Type	Common Name (Scientific name)	Federal/State/ CDFW/CNPS	General and Microhabitat combined	Habitat Presence	Potential to Occur within the BSA	Effect Finding for Federally Listed Species
Birds	tricolored blackbird (<i>Agelaius tricolor</i>)	-/ST/SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	Present	Low. There is suitable habitat present in the freshwater wetlands (Simonds Slough) in the BSA.	N/A
Birds	Western burrowing owl (<i>Athene cunicularia</i>)	-/-SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Present	Low. There is suitable foraging habitat within the BSA.	N/A
Birds	Western snowy plover (<i>Charadrius nivosus nivosus</i>)	FT-/SSC	Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	Absent	None	No effect
Birds	white-tailed kite (<i>Elanus leucurus</i>)	-/-/FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Present	Low. The BSA includes potential foraging habitat.	N/A
Birds	saltmarsh common yellowthroat (<i>Geothlypis trichas sinuosa</i>)	-/-SSC	Resident of the San Francisco Bay region, in fresh and salt-water marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	Present	Moderate. There is suitable habitat in the BSA. The species is known to occur along the Petaluma River and San Pablo Bay National Wildlife Refuge approximately 3 miles east of Novato Creek.	N/A

Animal Type	Common Name (Scientific name)	Federal/State/ CDFW/CNPS	General and Microhabitat combined	Habitat Presence	Potential to Occur within the BSA	Effect Finding for Federally Listed Species
Birds	California black rail (<i>Laterallus jamaicensis coturniculus</i>)	-/ST/FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	Present	High. The species has been recorded in the salt marsh habitat surrounding Novato Creek and the Petaluma River.	N/A
Birds	San Pablo song sparrow (<i>Melospiza melodia samuelis</i>)	-/-SSC	Resident of salt marshes along the north side of San Francisco and San Pablo bays. Inhabits tidal sloughs in the Salicornia marshes; nests in Grindelia bordering slough channels.	Present	Moderate. There is suitable habitat within the BSA. The species has been recorded in the San Pablo Bay National Wildlife Refuge, however both occurrences within the BSA are historic.	N/A
Birds	California Ridgway's rail (<i>Rallus obsoletus obsoletus</i> [R. <i>longirostris obsoletus</i>])	FE/SE/FP	Salt water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed but feeds away from cover on invertebrates from mud-bottomed sloughs.	Present	High. The species has been recorded in the salt marsh habitat surrounding Novato Creek and the Petaluma River.	May affect, not likely to adversely affect.
Birds	California least tern (<i>Sterna [Sternula] antillarum browni</i>)	FE/SE/FP	Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas.	Absent	None	No effect
Birds	Northern spotted owl (<i>Strix occidentalis caurina</i>)	FT/ST/-	Old-growth forests or mixed stands of old-growth and mature trees. Occasionally in younger forests with patches of big trees. High, multistory canopy dominated by big trees, many trees with cavities or broken tops, woody debris, and space under canopy.	Absent	None	No effect

Appendix C Species List

Animal Type	Common Name (Scientific name)	Federal/State/CDFW/CNPS	General and Microhabitat combined	Habitat Presence	Potential to Occur within the BSA	Effect Finding for Federally Listed Species
Birds	vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	FT/-/-	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	Absent	None	No effect
Birds	California freshwater shrimp (<i>Syncaris pacifica</i>)	FE/SE/-	Endemic to Marin, Napa, and Sonoma counties. Found in low elevation, low gradient streams where riparian cover is moderate to heavy. Shallow pools away from main streamflow. Winter: undercut banks with exposed roots. Summer: leafy branches touching water.	Absent	None.	No effect
Mammals	pallid bat (<i>Antrozous pallidus</i>)	-/-/SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Present	Low. Marginal suitable habitat for crevice-roosting species within weep holes under SR 37 at the intersection of Atherton Road and Harbor Drive and at the Hwy 101 on ramps.	N/A
Mammals	Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	-/-/SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Present	Low. Marginal suitable habitat for crevice-roosting species within weep holes under SR 37 at the intersection of Atherton Road and Harbor Drive and at the Hwy 101 on ramps.	N/A

Animal Type	Common Name (Scientific name)	Federal/State/ CDFW/CNPS	General and Microhabitat combined	Habitat Presence	Potential to Occur within the BSA	Effect Finding for Federally Listed Species
Mammals	salt-marsh harvest mouse (<i>Reithrodontomys raviventris</i>)	FE/SE/FP	Only in the saline emergent wetlands of San Francisco Bay and its tributaries. Pickleweed is primary habitat but may occur in other marsh vegetation types and in adjacent upland areas. Does not burrow; builds loosely organized nests. Requires higher areas for flood escape.	Present	Low. Suitable salt marsh habitat is present in the BSA along Novato Creek and the Petaluma River.	May affect, not likely to adversely affect.
Mammals	Suisun shrew (<i>Sorex ornatus sinuosus</i>)	-/-SSC	Tidal marshes of the northern shores of San Pablo and Suisun bays. Require dense low-lying cover and driftweed and other litter above the mean high tide line for nesting and foraging.	Absent	None. The species is not known to occur in Marin County. It had not been reported west of Sonoma Creek until 2002 when it was trapped at the mouth of Tolay Creek in San Pablo Bay (CDFW 2021). Shrews found along the Petaluma River and westward are presumed to be <i>Sorex ornatus</i> ssp. <i>californicus</i> . (Bolster, B.C. 1998)	N/A

FC = Candidate: there is sufficient information for the species to be listed as endangered or threatened, but development of a proposed listing regulation is precluded by other higher priority listing activities; FE = Endangered: any species in danger of extinction throughout all or a significant portion of its range; FT = Threatened: any species likely to become endangered within the foreseeable future; SE = Endangered: any species in danger of extinction throughout all or a significant portion of its range; ST = Threatened: any species likely to become endangered within the foreseeable future; SSC = Species of Special Concern; FP = Fully Protected

Sources: Bolster, B.C. 1998; CDFW. 2021 California Natural Diversity Database (CNDDDB) Rarefind 5: Habitat Conservation Division. Sacramento, California.

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Appendix D List of Acronyms

Acronym	Definition
AC	asphalt concrete
ADA	Americans with Disabilities Act
AMM	avoidance and minimization measure
BMP	best management practice
BSA	biological study area
Caltrans	California Department of Transportation
CAPM	Capital Preventative Maintenance
CCA	California Coastal Act of 1976
CCC	California Coastal Commission
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	<i>Code of Federal Regulations</i>
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
DI	drainage inlet
DPS	distinct population segment
DSA	disturbed soil area

EFH	essential fish habitat
ESA	environmentally sensitive area
FHWA	Federal Highway Administration
GHG	greenhouse gas
HPSR	Historic Property Survey Report
MBGR	metal beam guardrail
MGS	Midwest Guardrail System
MTC	Metropolitan Transportation Commission
NES	Natural Environment Study
PA	programmatic agreement
PM	post mile
Project	Marin County State Route 37 Capital Preventive Maintenance Pavement Project
RWQCB	Regional Water Quality Control Board
SHOPP	State Route Operation and Protection Program
SR	State Route
SSC	species of special concern
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
TAM	Transportation Authority of Marin
TCE	temporary construction easement
TMP	Traffic Management Plan

TTY	text telephone
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
VIA	visual impact assessment
WEF	wildlife exclusion fencing

Appendix E List of Technical Studies and References

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