State Route 1 Centerline Rumble Strip Project

Initial Study with Negative Declaration

SONOMA COUNTY, CALIFORNIA
DISTRICT 4 – SON – 1 (PM 0.00-58.58)
04-4G780/0413000178

Prepared by the
State of California, Department of Transportation

March 2023

General Information about this Document

What's in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study with Negative Declaration (IS/ND) for the State Route (SR) 1 Centerline Rumble Strip Project (Project). Caltrans proposes to widen the existing shoulder to 6 feet at 50 spot locations and install four segments of centerline rumble strips between post miles (PMs) 0.00 and 58.58 on SR 1 in Sonoma County. Additional Project information is provided in Chapter 2.

Caltrans is the lead agency under the California Environmental Quality Act (CEQA). This IS/ND describes why Caltrans proposes the Project, how the existing environment could be affected by the Project, potential environmental impacts, and the Project features and avoidance and minimization measures that would reduce and avoid and/or minimize Project impacts to a less than significant level. The IS/ND was circulated to the public for 33 days between January 20, 2022, and February 21, 2022. Public comments received in the form of emails and letters, and responses to these comments during the review period are included in Appendix F. Throughout this document, a vertical line in the margin indicates a change made since the circulation of the IS/ND, however, minor editorial changes are not denoted. Additional copies of this document are available for review at the District 4 Environmental Documents by County website (https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs).

Alternative Formats:

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

An accessible electronic copy of this IS/ND is available to download at the District 4 Environmental Documents by County website (https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs).

Initial Study with Negative Declaration

04-SON-1	0.00-58.58	04-4G780
Dist. – Co. – Rte.	PM	E.A.

Project title:	SR 1 Centerline Rumble Strip Project
SCH Number	2023010380
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:	Sonoma County
General plan description:	Highway
Zoning:	Transportation Corridor
Other public agencies whose approval is required (e.g., permits, financial approval, or participation agreements)	California Coastal Commission or Sonoma County California Department of Fish and Wildlife California Transportation Commission California Department of Parks and Recreation North Coast Regional Water Quality Control Board U.S. Army Corps of Engineers U.S. Fish and Wildlife Service

This IS/ND, maps, and Project information are available to download at the District 4 Environmental Documents by County website (https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs).

Maxwell Lammert

Maxwell Lammert
Acting Chief, Office of Environmental Analysis
California Department of Transportation, District 4

03/30/2023
Date

To obtain a copy in Braille, in large print, on audiocassette, or on computer disk, please mail Caltrans, District 4, ATTN: Arnica MacCarthy, Senior Environmental Planner, P.O. Box 23660, MS-8B, Oakland, CA 94623-0660; email mailto: son1centerlinerumblestrip@dot.ca.gov; or call **California Relay Service** at **(800) 735-2929 (TTY)**, **(800) 735-2922 (Voice)**, or **711**.

Negative Declaration

Project Description

The California Department of Transportation (Caltrans) has prepared this Initial Study with Proposed Negative Declaration (IS/ND) for the State Route (SR) 1 Centerline Rumble Strip Project (Project). Caltrans proposes to widen the existing shoulder to 6 feet at 50 spot locations and install four segments of centerline rumble strips between post miles (PMs) 0.00 and 58.58 on SR 1 in Sonoma County. Additional Project information is provided in Chapter 2.

Determination

Caltrans has prepared this IS/ND for the Project and, following public review, has determined from this study that the Project would not have a significant effect on the environment for the following reasons:

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

Melanie Brent

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

03/30/2023

Date

Table of Contents

List of Tables

List of Appendices

List of Abbreviated Terms

Abbreviation	Definition
AB	Assembly Bill
AMM	avoidance and/or minimization measure
ADI	Area of Direct Impact
APE	area of potential effects
BSA	Biological Study Area
BSB	Behren's silverspot butterfly
BMP	best management practice
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCA	California Coastal Act of 1976
CCC	California Coastal Commission
CCT	California Coastal Trail
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CGS	California Geological Survey
CGS	California giant salamander
CH_4	methane
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CRLF	California red-legged frog
CWA	Clean Water Act
dB	decibels

Abbreviation	Definition
dBA	A-weighted decibels
DP	Director's Policy
ESA	environmentally sensitive area
ESHA	environmentally sensitive habitat areas
FHWA	Federal Highway Administration
FYLF	foothill yellow-legged frog
GHG	greenhouse gases
Graton Rancheria	Federated Indians of Graton Rancheria
Guidelines	Final Sonoma Route 1 Repair Guidelines
GWP	global warming potential
IS/ND	Initial Study/Negative Declaration
Kashia Pomo	Kashia Band of Pomo Indians of the Stewarts Point Rancheria
LCP	Local Coastal Plan
L_{max}	maximum hourly noise level
MAMU	marbled murrelet
MLD	Most Likely Descendent
mph	miles per hour
MRZ	Mineral Resource Zone
MSB	Myrtle's silverspot butterfly
N_2O	nitrous oxide
NAHC	Native American Heritage Commission
NB	northbound
ND	Negative Declaration
NOAA Fisheries	National Oceanographic and Atmospheric Administration Fisheries Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places

Abbreviation	Definition
NSO	northern spotted owl
OCRS	Office of Cultural Resources Studies
PA	Programmatic Agreement
PF	Project Feature
PG&E	Pacific Gas and Electric Company
PM	post mile
PM_{10}	particulate matter with aerodynamic diameter equal to or less than 10 micrometers
$PM_{2.5}$	particulate matter with aerodynamic diameter equal to or less than 2.5 micrometers
PQS	Professionally Qualified Staff
PS&E	Plans, Specifications, and Estimates
RBN	red-bellied newt
RCEM	Road Construction Emissions Model
ROW	right of way
SB	southbound
SCTA	Sonoma County Transportation Authority
SLF	Sacred Lands File
SNPL	western snowy plover
SR	State Route
SSC	Species of Special Concern
SSP	Standard Special Provision
State Parks	California Department of Parks and Recreation
STV	Sonoma tree vole
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
THPO	Tribal Historic Preservation Officer

Abbreviation	Definition
TMP	Traffic Management Plan
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VMT	vehicle miles traveled
WEF	wildlife exclusion fencing
WPT	western pond turtle

Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans), as the California Environmental Quality Act (CEQA) lead agency and sponsor for the State Route (SR) 1 Centerline Rumble Strip Project (Project), has prepared this Initial Study with Negative Declaration (IS/ND) for the Project.

The Project would occur along SR 1 between Post Mile (PM) 0.00 and PM 58.58 in Sonoma County (Figures 1-1 and 1-2; figures are presented in Appendix A). Caltrans proposes to install ground-in centerline rumble strip, install wet-night visibility striping, and widen the shoulders at 50 spot locations on SR 1 (Figure 1-3). The approximately 58.58-mile stretch along SR 1 between the Marin County line and the Mendocino County line is referred to hereafter as the "Project corridor."

The Project is funded by the State Highway Operation and Protection Program (SHOPP) under program code 201.010 (Safety Improvements) for the 2023/2024 program year. The SHOPP is California's "fix-it-first" program, which funds the repair and preservation of the State Highway System, safety improvements, and some highway operational improvements. It has been determined that the Project is eligible for Federal-aid funding. The Project total cost estimate, including capital and support costs, is approximately $22,682,000.

Caltrans is a recipient of Federal Highway Administration federal-aid highway funds. Recipients of federal funds are required to comply with various non-discrimination laws and regulations, including Title VI of the Civil Rights Act of 1964 (Title VI). Title VI forbids discrimination against anyone in the United States on the basis of race, color, or national origin, in the programs and activities of an agency receiving federal financial assistance. Caltrans' commitment to upholding the mandates of Title VI is summarized in the Non-Discrimination Policy Statement (Appendix B).

1.2 Purpose and Need

The purpose of the Project is to reduce the number and severity of head-on, cross-centerline, and run-off-road collisions in order to provide safe traffic operations on SR 1 and also to provide refuge areas for bicyclists to use when being passed by motorists on this stretch of the highway.

The current Two-and-Three-Lane Safety Monitoring Program has identified several head-on collisions, sideswipe collisions, and fatal collisions on SR 1 in Sonoma County. The 2012 California Roadway Departure Safety Implementation Plan (CA-RDSIP) (FHWA 2012) also identified SR 1 in Sonoma County as having fatalities from run-off-road accidents that meet the threshold for countermeasures. CA-RDSIP promotes the implementation of centerline rumble strips on two-lane undivided rural highways with a pavement width of at least 20 feet when thresholds have been met.

1.3 Existing Conditions

Within the Project limits, SR 1 extends from the Marin County line to the Mendocino County line for a distance of 58.58 miles. Within this stretch of SR 1 the highway is a two-lane rural conventional highway with 10-foot to 12-foot-wide travel lanes, with no centerline rumble strips, and shoulders varying from 0 to 8 feet wide. Within Sonoma County, SR 1 also serves as the only link to several small coastal communities and does not provide High Occupancy Vehicle (HOV) lanes. Due to SR 1 being a narrow and winding road, it is subject to head-on and sideswipe collisions.

Table 1-1 depicts the existing shoulder conditions at the 50 shoulder widening spot locations.

After further review of detailed survey data and field visits, it was determined that formerly considered shoulder widening locations northbound (NB) #01 (Location 1), NB #03 (Location 4), NB #05 (Location 7), southbound (SB) #06 (Location 12), and SB #07 (Location 14) have existing 6-foot shoulders, and these locations were therefore removed from the scope of work. In addition, shoulder widening locations NB #06 (Location 8), SB #09 (Location 16), SB #14 (Location 21), NB #08 (Location 22), NB #13 (Location 39), and SB #27 (Location 40) were removed from the scope of work due to environmental constraints. Therefore, there is no further discussion of these 11 former shoulder widening locations in this IS/ND.

Table 1-1. Existing Conditions

Location Number	Location Name	Begin Post Mile	End Post Mile	Existing Shoulder
1	NB #02 (Location 2)	0.21	0.25	Paved, Dirt
2	SB #01 (Location 3)	0.61	0.65	Dirt
3	NB #04 (Location 5)	1.38	1.43	Paved, Dirt
4	SB #02 (Location 6)	2.34	2.41	Paved, Dirt
5	SB #03 (Location 9)	7.13	7.18	Paved

Location Number	Location Name	Begin Post Mile	End Post Mile	Existing Shoulder
6	SB #04 (Location 10)	7.39	7.42	Paved, Gravel
7	SB #05 (Location 11)	7.60	7.68	Paved, Gravel
8	NB #07 (Location 13)	12.10	12.15	Dirt
9	SB #08 (Location 15)	12.93	13.11	Paved, Dirt
10	SB #10 (Location 17)	13.78	13.84	Paved, Gravel
11	SB #11 (Location 18)	14.25	14.30	Paved, Gravel
12	SB #12 (Location 19)	15.80	15.84	Paved, Dirt
13	SB #13 (Location 20)	15.95	16.01	Paved, Dirt
14	SB #15 (Location 23)	20.49	20.52	Gravel, Dirt
15	SB #16 (Location 24)	21.00	21.13	Paved, Dirt
16	SB #17 (Location 25)	23.61	23.68	Gravel, Dirt
17	SB #18 (Location 26)	23.82	23.88	Gravel, Dirt
18	SB #19 (Location 27)	26.03	26.08	Gravel, Dirt
19	NB #09 (Location 28)	27.25	27.32	Paved, Dirt
20	NB #10 (Location 29)	27.67	27.72	Gravel
21	SB #20 (Location 30)	27.67	27.78	Gravel
22	NB #11 (Location 31)	27.98	28.01	Gravel
23	SB #21 (Location 32)	28.42	28.47	Gravel, Dirt
24	SB #22 (Location 33)	29.63	29.77	Paved, Gravel
25	SB #23 (Location 34)	30.99	31.01	Gravel, Dirt
26	SB #24 (Location 35)	31.99	32.01	Gravel, Dirt
27	SB #25 (Location 36)	32.25	32.29	Gravel, Dirt
28	SB #26 (Location 37)	33.62	33.67	Gravel, Dirt
29	NB #12 (Location 38)	34.00	34.05	Paved, Dirt
30	SB #28 (Location 41)	39.09	39.15	Gravel
31	SB #29 (Location 42)	39.23	39.28	Gravel
32	SB #30 (Location 43)	39.35	39.39	Gravel
33	NB #14 (Location 44)	40.00	40.03	Gravel, Dirt
34	SB #31 (Location 45)	40.49	40.52	Gravel
35	NB #15 (Location 46)	40.78	40.82	Gravel, Dirt
36	SB #32 (Location 47)	41.74	41.81	Gravel, Dirt
37	SB #33 (Location 48)	42.24	42.30	Gravel, Dirt
38	SB #34 (Location 49)	43.03	43.06	Gravel
39	SB #35 (Location 50)	43.22	43.30	Gravel, Dirt
40	NB #16 (Location 51)	R43.90	R43.96	Gravel, Dirt
41	SB #36 (Location 52)	44.53	44.57	Gravel

Location Number	Location Name	Begin Post Mile	End Post Mile	Existing Shoulder
42	SB #37 (Location 53)	44.99	45.09	Dirt
43	SB #38 (Location 54)	R45.18	45.28	Gravel, Dirt
44	SB #39 (Location 55)	46.06	46.12	Gravel, Dirt
45	SB #40 (Location 56)	47.61	47.69	Gravel, Dirt
46	SB #41 (Location 57)	49.18	49.23	Gravel, Dirt
47	SB #42 (Location 58)	54.30	54.34	Gravel, Dirt
48	SB #43 (Location 59)	55.89	55.93	Dirt
49	NB #17 (Location 60)	56.08	56.14	Gravel
50	SB #44 (Location 61)	57.11	57.16	Gravel, Dirt

Notes:

NB = northbound
SB = southbound

Chapter 2 Project Description

2.1 Introduction

Caltrans proposes to install ground-in centerline rumble strip, install wet-night visibility striping, and widen the shoulders at 50 spot locations on SR 1 (Figures 1-1 through 1-3). The ground-in centerline rumble strip segments are explained in Section 2.2.1. The shoulder widening locations are described in Section 2.2.2. Due to the length of the Project corridor, and for the purposes of environmental analyses, the Project limits have been divided into Sub-Areas 1 through 4 (Table 2-1, Figure 1-2). The Project footprint would encompass the maximum extent of construction-related activities, including staging and disturbed areas, and would be approximately 161.03 acres (Figure 1-3).

Table 2-1. Project Sub-Areas

Sub-Area Name	Sub-Area Begin Post Mile	Sub-Area End Post Mile	Shoulder Widening Location[1]	Centerline Rumble Strip Segment[2]
Sub-Area 1	0.00	11.00	NB #02 (Location 2)	N/A
Sub-Area 1	0.00	11.00	SB #01 (Location 3)	N/A
Sub-Area 1	0.00	11.00	NB #04 (Location 5)	N/A
Sub-Area 1	0.00	11.00	SB #02 (Location 6)	Segment 1
Sub-Area 1	0.00	11.00	SB #03 (Location 9)	Segment 1
Sub-Area 1	0.00	11.00	SB #04 (Location 10)	Segment 1
Sub-Area 1	0.00	11.00	SB #05 (Location 11)	Segment 1
Sub-Area 2	11.00	22.00	NB #07 (Location 13)	Segment 2
Sub-Area 2	11.00	22.00	SB #08 (Location 15)	Segment 2
Sub-Area 2	11.00	22.00	SB #10 (Location 17)	Segment 2
Sub-Area 2	11.00	22.00	SB #11 (Location 18)	Segment 2
Sub-Area 2	11.00	22.00	SB #12 (Location 19)	Segment 2
Sub-Area 2	11.00	22.00	SB #13 (Location 20)	Segment 2
Sub-Area 2	11.00	22.00	SB #15 (Location 23)	Segment 2
Sub-Area 2	11.00	22.00	SB #16 (Location 24)	Segment 2
Sub-Area 3	22.00	32.00	SB #17 (Location 25)	Segment 3
Sub-Area 3	22.00	32.00	SB #18 (Location 26)	Segment 3
Sub-Area 3	22.00	32.00	SB #19 (Location 27)	Segment 3
Sub-Area 3	22.00	32.00	NB #09 (Location 28)	Segment 3
Sub-Area 3	22.00	32.00	NB #10 (Location 29)	Segment 3

Sub-Area Name	Sub-Area Begin Post Mile	Sub-Area End Post Mile	Shoulder Widening Location[1]	Centerline Rumble Strip Segment[2]
Sub-Area 3	22.00	32.00	SB #20 (Location 30)	Segment 3
Sub-Area 3	22.00	32.00	NB #11 (Location 31)	Segment 3
Sub-Area 3	22.00	32.00	SB #21 (Location 32)	Segment 3
Sub-Area 3	22.00	32.00	SB #22 (Location 33)	Segment 3
Sub-Area 3	22.00	32.00	SB #23 (Location 34)	N/A
Sub-Area 3	22.00	32.00	SB #24 (Location 35)	Segment 4
Sub-Area 4	32.00	58.58	SB #25 (Location 36)	Segment 4
Sub-Area 4	32.00	58.58	SB #26 (Location 37)	Segment 4
Sub-Area 4	32.00	58.58	NB #12 (Location 38)	Segment 4
Sub-Area 4	32.00	58.58	SB #28 (Location 41)	Segment 4
Sub-Area 4	32.00	58.58	SB #29 (Location 42)	Segment 4
Sub-Area 4	32.00	58.58	SB #30 (Location 43)	Segment 4
Sub-Area 4	32.00	58.58	NB #14 (Location 44)	Segment 4
Sub-Area 4	32.00	58.58	SB #31 (Location 45)	Segment 4
Sub-Area 4	32.00	58.58	NB #15 (Location 46)	Segment 4
Sub-Area 4	32.00	58.58	SB #32 (Location 47)	Segment 4
Sub-Area 4	32.00	58.58	SB #33 (Location 48)	Segment 4
Sub-Area 4	32.00	58.58	SB #34 (Location 49)	Segment 4
Sub-Area 4	32.00	58.58	SB #35 (Location 50)	Segment 4
Sub-Area 4	32.00	58.58	NB #16 (Location 51)	Segment 4
Sub-Area 4	32.00	58.58	SB #36 (Location 52)	Segment 4
Sub-Area 4	32.00	58.58	SB #37 (Location 53)	Segment 4
Sub-Area 4	32.00	58.58	SB #38 (Location 54)	Segment 4
Sub-Area 4	32.00	58.58	SB #39 (Location 55)	Segment 4
Sub-Area 4	32.00	58.58	SB #40 (Location 56)	Segment 4
Sub-Area 4	32.00	58.58	SB #41 (Location 57)	Segment 4
Sub-Area 4	32.00	58.58	SB #42 (Location 58)	Segment 4
Sub-Area 4	32.00	58.58	SB #43 (Location 59)	Segment 4
Sub-Area 4	32.00	58.58	NB #17 (Location 60)	Segment 4
Sub-Area 4	32.00	58.58	SB #44 (Location 61)	Segment 4

Notes:

[1] Shoulder widening locations are defined in Table 2-3.

[2] Centerline rumble strip segments are defined in Table 2-2.

NB = northbound

SB = southbound

N/A = Not applicable

2.2 Project Components

The following sections describe the Project components, which are also depicted in Figure 1-3 in Appendix A.

2.2.1 Install Centerline Rumble Strip

The Project proposes to install incontiguous sections of ground-in centerline rumble strips on SR 1. The centerline rumble strips would be discontinued where the speed limit is equal to or less than 35 miles per hour (mph). These locations include a minimum of 25 feet in advance of highway intersections, pedestrian crossings, cattle guards, commercial or town centers, and left-turn lane openings. Table 2-2 provides the locations in which centerline rumble strips are proposed.

Table 2-2. Centerline Rumble Strip Installation Locations

Segment Name	Begin Post Mile	End Post Mile
Segment 1	2.05	9.40
Segment 2	11.50	21.15
Segment 3	22.00	30.60
Segment 4	31.95	58.58

To ensure the Project supports safe mobility for all users, a previous Caltrans centerline rumble strip project was analyzed. Centerline rumble strips were installed on SR 1 in Marin County, and collision data from before and after Project completion was analyzed. In conclusion, after the installation of centerline rumble strips, the percentage of bicycle-related collisions, head-on, and fatal collisions, have all decreased. Therefore, centerline rumble strip has been proven to increase the overall, multi-modal safety for all users.

2.2.2 Widen Shoulders

The Project would widen the existing shoulder to 6 feet at 50 spot locations (Table 2-3) where there is an existing width of shoulder that is relatively flat or on an uphill grade that would not require extensive embankment creation, excavation, or retaining structures to construct the shoulder widening. The depth of excavation at the shoulder widening locations would be 1.8 feet, and the total new impervious surface (NIS) due to the shoulder widening would be 4.05-acres Currently, the 50 locations include 11 east of the northbound lane and 39 west of the southbound lane. These locations were selected considering their expected benefit to cyclists, limited environmental impact, and limited right of way (ROW) concerns. The Project would

provide sufficient shoulder width to accommodate bicyclists where off-road bicycle facilities are not feasible. The 50 spot locations of shoulder widening would serve as refuge areas for bicyclists when being passed by motorists. This would increase bicyclists' safety as these shoulder widening locations would provide bicyclists with more areas for safe passage by motor vehicles.

Table 2-3. Shoulder Widening Locations

Location Number	Location Name	Begin Post Mile	End Post Mile	Proposed Paving Length (feet)
1	NB #02 (Location 2)	0.21	0.25	262
2	SB #01 (Location 3)	0.61	0.65	383
3	NB #04 (Location 5)	1.38	1.43	417
4	SB #02 (Location 6)	2.34	2.41	431
5	SB #03 (Location 9)	7.13	7.18	458
6	SB #04 (Location 10)	7.39	7.42	337
7	SB #05 (Location 11)	7.60	7.68	447
8	NB #07 (Location 13)	12.10	12.15	234
9	SB #08 (Location 15)	12.93	13.11	954
10	SB #10 (Location 17)	13.78	13.84	324
11	SB #11 (Location 18)	14.25	14.30	247
12	SB #12 (Location 19)	15.80	15.84	406
13	SB #13 (Location 20)	15.95	16.01	445
14	SB #15 (Location 23)	20.49	20.52	382
15	SB #16 (Location 24)	21.00	21.13	953
16	SB #17 (Location 25)	23.61	23.68	419
17	SB #18 (Location 26)	23.82	23.88	487
18	SB #19 (Location 27)	26.03	26.08	407
19	NB #09 (Location 28)	27.25	27.32	376
20	NB #10 (Location 29)	27.67	27.72	272
21	SB #20 (Location 30)	27.67	27.78	522
22	NB #11 (Location 31)	27.98	28.01	160
23	SB #21 (Location 32)	28.42	28.47	490
24	SB #22 (Location 33)	29.63	29.77	713
25	SB #23 (Location 34)	30.99	31.01	674
26	SB #24 (Location 35)	31.99	32.01	306
27	SB #25 (Location 36)	32.25	32.29	185
28	SB #26 (Location 37)	33.62	33.67	344
29	NB #12 (Location 38)	34.00	34.05	252
30	SB #28 (Location 41)	39.09	39.15	312

Location Number	Location Name	Begin Post Mile	End Post Mile	Proposed Paving Length (feet)
31	SB #29 (Location 42)	39.23	39.28	234
32	SB #30 (Location 43)	39.35	39.39	197
33	NB #14 (Location 44)	40.00	40.03	141
34	SB #31 (Location 45)	40.49	40.52	223
35	NB #15 (Location 46)	40.78	40.82	211
36	SB #32 (Location 47)	41.74	41.81	395
37	SB #33 (Location 48)	42.24	42.30	638
38	SB #34 (Location 49)	43.03	43.06	216
39	SB #35 (Location 50)	43.22	43.30	189
40	NB #16 (Location 51)	R43.90	R43.96	229
41	SB #36 (Location 52)	44.53	44.57	456
42	SB #37 (Location 53)	44.99	45.09	379
43	SB #38 (Location 54)	R45.18	45.28	375
44	SB #39 (Location 55)	46.06	46.12	489
45	SB #40 (Location 56)	47.61	47.69	449
46	SB #41 (Location 57)	49.18	49.23	153
47	SB #42 (Location 58)	54.30	54.34	203
48	SB #43 (Location 59)	55.89	55.93	234
49	NB #17 (Location 60)	56.08	56.14	325
50	SB #44 (Location 61)	57.11	57.16	265

Notes:

NB = northbound
SB = southbound

2.2.3 Drainage Systems

The new impervious areas created by the shoulder widening would increase runoff; however, it is expected that the existing drainage facilities, such as cross culverts and roadside ditches, have the capacity to handle this slight increase.

In some locations, the widened shoulder would cause the embankment slope to encroach into the existing roadside ditch, thereby reducing its capacity. To minimize this impact, design strategies such as reducing the proposed 3-foot choker and/or steepening the side slope to 2:1 ratio would be considered to avoid or minimize encroachment. The choker is the area between the outside edge of the shoulder and the top of the embankment slope, and its purpose is to drain runoff away from the highway, towards the embankment. Any existing ditches or swales impacted by the Project would need to be reestablished.

It is unclear at this stage of the Project whether excavation required for the Project would impact any culverts. Concrete backfill would be required along the portion of a culvert with less than 2 feet of material above the top of the culvert. For any drainage inlets that would be impacted, either the frames and grates or the inlet tops would be adjusted to grade. Any existing drainage pattern that would be affected, would need to be reestablished as part of the Project.

2.3 Construction Methodologies

This section discusses the anticipated methodology for construction staging, schedule, construction-related equipment, utilities, and ROW for the Project.

2.3.1 Construction Strategy

Prior to the beginning of construction-related activities, construction area signs; environmentally sensitive area (ESA) fencing; and construction site, water pollution control, and erosion control best management practices (BMPs) would be installed. ESA fencing would delineate the limits of the work area and protect vegetation, trees, and archaeologically sensitive areas from construction-related activities.

For the installation of the ground-in centerline rumble strip and shoulder widening, rolling one-lane shoulder and lane closures (also known as a pacing operation, or traffic pacing, which is a highway traffic control technique used to temporarily slow or stop traffic upstream or downstream of construction-related activities) are anticipated due to construction equipment and highway geometric constraints. A grinder truck would grind the existing striping from the centerline, and grind in the centerline rumble strip. The highway surface would be cleaned immediately after with a vacuum truck, and then application of the new 6-inch-wide wet-night visibility striping would be completed with a striping truck, within the same closure limits.

Widening and paving of the 6-foot shoulders from the existing edge of travel way (ETW) would be completed separately from the rumble strip and restriping operation and would not be constrained by the moving closure. However, shoulder closures are anticipated during construction of the shoulder widening, due to construction equipment and highway geometric constraints. A temporary barrier system would be placed along the ETW with end treatments at both ends, where shoulder closures occur.

Some of the shoulder widening locations would require clearing and grubbing of vegetation. Vegetation removal would not occur within the typical bird nesting season

(February 1 to September 30) unless pre-construction surveys are completed for nesting birds. Vegetation control may differ for California Department of Parks and Recreation (State Parks) areas due to State Parks jurisdiction adjacent to the Project corridor. Vegetation control and revegetation efforts would be finalized during the design phase in consultation with State Parks.

As construction of the centerline rumble strip segments and shoulder widening locations concludes, all construction-related items would be removed. This includes removing the temporary erosion control, construction site, and water pollution control BMPs; ESA fencing; temporary barrier systems; temporary end treatments; and construction area signs.

2.3.2 Construction Schedule

The overall construction period for the Project is anticipated to be 15 months, or 250 working days, and occur between January 2025 and April 2026. Construction-related activities would be limited to daytime hours. Construction schedule would be finalized during the design phase.

Prior to ground-disturbing activities, the Project would develop temporary BMPs in compliance with Standard Specification 13-3.01C(3) and develop and deploy appropriate BMPs consistent with the Rain Event Action Plan at least 48 hours in advance of a forecasted storm that has a 50% probability of rainfall within 72 hours.

2.3.3 Staging Areas

Staging areas for the overnight storage of construction equipment and materials would be limited to areas within the Caltrans ROW, such as shoulder widening locations or shoulder areas near the shoulder widening locations that would not require the removal of vegetation (Figure 1-3). Staging areas would be finalized during the design phase.

2.3.4 Construction Equipment

Construction equipment may include, but is not limited to, utility trucks, backhoes, excavators, dump trucks, jack hammers, saw cutters, generators, vacuum trucks, water trucks, street sweepers, air compressors, grinders, asphalt pavers, thermoplastic striping trucks, augers, compactors, concrete pumps, and hydraulic pumps.

2.3.5 Utilities

Utility verification (i.e., potholing) would occur during the design phase to confirm the need for utility relocations. It is anticipated that existing utility poles for AT&T

and PG&E overhead utilities will need to be relocated at some of the shoulder widening locations. There is an existing optical fiber conduit running under some sections of SR 1, which is close to the centerline of the highway within the Project limits. It is assumed that this optical fiber conduit will be protected in place from construction-related activities. In addition, it is anticipated that water lines are also present within the Project corridor but would be protected in place to the extent feasible. If needed, utility relocations would occur prior to the beginning of construction and in consultation with utility providers. Section 3.3.19 provides more detail on utilities and service systems.

2.3.6 Right of Way

Construction-related activities, including staging areas, would occur within Caltrans ROW. The Project would not require ROW acquisition for purposes of temporary construction easements.

2.4 Permits, Licenses, Agreements, Certifications, and Approvals Required

Table 2-4 lists the permits, licenses, agreements, and certifications that are anticipated to be required for Project construction.

Table 2-4. Permits, Licenses, Agreements, Certifications, and Approvals Required

Agency	Permits, Licenses, Agreements, Certifications, and/or Approval	Status
California Coastal Commission or Sonoma County	Coastal Development Permit	Application to be submitted during the design phase
California Department of Fish and Wildlife	Section 1602 Lake and Streambed Alteration Agreement	Application to be submitted during the design phase
California Transportation Commission	Financial Approval	Targeting to receive by June 4, 2024, and application to be submitted prior to the beginning of construction
North Coast Regional Water Quality Control Board	Section 401 Water Quality Certification	Application to be submitted during the design phase
U.S. Army Corps of Engineers	Section 404 Permit	Application to be submitted during the design phase
U.S. Fish and Wildlife Service	Biological Opinion	Targeting to receive during the design phase

Chapter 3 California Environmental Quality Act Evaluation

The following discussions evaluate potential environmental impacts of the Project related to the CEQA checklist to comply with state CEQA Guidelines (Title 14 California Code of Regulations Division 6, Chapter 3, Section 15091).

3.1 Environmental Factors Potentially Affected

As part of the scoping and environmental analysis carried out for the Project, the following environmental factors were considered, but no impacts were identified: agriculture and forest resources, and mineral resources. The environmental factors marked with an "X" would be potentially impacted by the Project. Further analysis of these environmental factors is discussed in the subsections that follow.

X	Aesthetics		Agriculture and Forestry	X	Air Quality
X	Biological Resources	X	Cultural Resources	X	Energy
X	Geology/Soils	X	Greenhouse Gas Emissions	X	Hazards and Hazardous Materials
X	Hydrology/Water Quality	X	Land Use/Planning		Mineral Resources
X	Noise		Population/Housing		Public Services
	Recreation	X	Transportation/Traffic	X	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:**
Maxwell Lammert	03/30/2023
Printed Name: Maxwell Lammert	**For:**

3.3 CEQA Environmental Checklist

The CEQA Environmental Checklist identifies physical, biological, social, and economic factors that might be affected by the 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 "CEQA Determination" column of the impact summary tables at the beginning of each resource category section in this chapter reflects this determination. The words "significant" and "significance" used throughout this IS/ND are related to CEQA, not National Environmental Policy Act, impacts. The questions in each impact summary table are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features (PFs) are measures incorporated into Caltrans projects to reduce environmental impacts that can include both design components of the Project and standardized measures that are applied to most, if not all Caltrans projects, such as construction site BMPs and measures included in the Caltrans Standard Plans and Standard Specifications or as Standard Special Provisions, and are considered to be an integral part of the Project and have been considered prior to any significance determinations documented in this chapter. Avoidance and minimization measures (AMMs) are additional measures to avoid and/or minimize a project's environmental impacts but are more specifically tailored to a given project's particular impacts. The PFs and AMMs incorporated into the Project are described in this chapter and are compiled in Appendix C.

Sections 3.3.1 through 3.3.20 present the CEQA determinations under Appendix G of the CEQA Guidelines. The CEQA determinations depend on the level of potential environmental impact that would result from the Project. The level of significance determinations is 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 PFs/AMMs.
- Less Than Significant Impact with Mitigation Incorporated: Indicates the potential for a significant environmental impact that would be mitigated with the implementation of mitigation measures (MMs) to a level of less than significant.

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

CEQA Significance Determinations for Aesthetics

A *Visual Impact Assessment and Scenic Resources Evaluation* memorandum (Caltrans 2022c) was prepared by Caltrans for the Project, and a summary of the findings is presented in this section.

SR 1 throughout unincorporated Sonoma County is a narrow and winding two-lane conventional highway. The highway is travelled relatively lightly, yet consistently, used by daily commuters, vacationers, bicyclists, and others. Existing shoulders within the Project corridor vary from 0 feet to a maximum of 8-feet-wide. Metal beam guardrail exists at limited locations, as does cable safety railing. There are no traffic signals, there is only one stop sign just north of the Russian River, and the speed limit ranges from 25 to 55 mph. There are no bicycle lanes, and pedestrians cross the highway at various locations, although the highway is not commonly used as a walking route (Caltrans 2022c).

The entirety of SR 1 in Sonoma County is listed as Eligible for designation as a State Scenic Highway. It traverses terrain of extremely high scenic value, with few elements detracting from that high-quality visual landscape. The regional landscape within the Project limits is characterized by rolling hillsides of open grasses, rocky outcroppings, extensive stretches of native coastal sage scrub, and wooded groves that, when along the coastline, meet dramatic bluffs providing vistas of the Pacific Ocean. The linear and curvilinear stretches of the highway are bordered by sporadic commercial and residential developments on both sides of the highway. The character of the highway and surrounding lands is rural, with park properties adjacent to the

highway at some locations. The Russian River, Salmon Creek, the Gualala River, and smaller streams cross the highway, adding to its scenic quality.

The Project is located within the California Coastal Zone, and although not strictly subject to the *Final Sonoma Route 1 Repair Guidelines* (Guidelines) (Caltrans 2019), would still comply where feasible. These Guidelines were produced by Caltrans with local and state agencies and other collaborating stakeholders. The Guidelines stress the value and importance of the use of specific project components for inclusion in highway projects along SR 1. Further, the Guidelines encourage the use of project components often not included on highway construction projects elsewhere, including nonstandard design features requiring special approval which can be supported by referencing the Guidelines.

Additionally, the Project would comply with Director's Policy (DP) 22 "Context Sensitive Solutions" (Caltrans 2001). The solutions set forth in DP 22 use innovative and inclusive approaches that integrate and balance community, aesthetic, historic, and environmental values with transportation safety, maintenance, and performance goals The Guidelines and DP 22 include the use of project components that contribute to visual consistency and continuity, and constructed features that are visually appropriate to the area. The project components reflect the recognition of the importance of the visual quality of the highway and are reflected in the early-stage design of the Project. Context-sensitive Project components would be finalized during the design phase and in consultation with regulatory agencies.

It is possible that the removal of a small number of trees would be necessary; tree removal/replacement ratios would be finalized during the design phase and in consultation with permitting agencies. Because the scope of the construction work is limited and the impacts modest overall, measures dependent on that determination would not significantly alter the visual impact brought about by construction. Whatever planting may be required would only serve to further minimize changes to the visual environment. The assumption is that seeding with a commercially available, locally appropriate native seed mix, applied to all areas of disturbed soil, will be needed. The visual nature of the planting would be consistent with the surrounding native vegetation as existed pre-construction. Post-construction seeding with a commercially available, locally appropriate native seed mix, coupled with the moist coastal environment, would help ensure that native plants are quickly reestablished, thereby largely and quickly erasing the minor and temporary visual impacts of the Project.

Opportunities to use materials and Project components consistent with those noted in the Guidelines would be pursued as appropriate to further reduce Project impacts, although the limited scope of work minimizes the need for such adaptations. Additionally, implementation of the PFs and AMMs presented at the end of this section would help limit impacts to vegetation and other visual resources.

a, b, and d) Less Than Significant Impact

The Project would not adversely affect any Designated Scenic Resource (such as a rock outcropping, tree grouping, historic property, etc.) as defined by CEQA statues or guidelines, or by Caltrans policies. Existing vegetation removal is expected to be minimal, and no adverse visual impacts are anticipated. Existing scenic vistas are expected to remain as per current conditions. The Project components would not substantially affect the appearance of the highway corridor and would be visually consistent with the character of the surrounding area.

The Project would not result in new substantial light or glare that would adversely affect nighttime views. Construction lighting would be limited to occurring within the Project footprints for construction-related activities, and light trespass to adjacent residences and to the traveling public would be minimized with the use of directional lighting, shielding, and other measures as needed.

The Project, with implementation of PF-AES-1, PF-AES-2, and AMM-AES-1 through AMM-AES-3, would result in only modest visual impacts. The dominance of the views beyond the highway would remain and would not be degraded by Project construction. Post construction seeding would minimize the appearance of disturbance and any additional planting, if determined to be necessary, would further minimize visual impacts. Impacts to scenic resources in the Project corridor would be less than significant.

c) No Impact

The Project would not conflict with applicable zoning and other regulations governing scenic quality; therefore, there would be no impact.

PROJECT FEATURES

Caltrans would incorporate the following PFs into the Project to reduce potential impacts to visual resources:

- **PF-AES-1, Minimize Vegetation Impacts:** Minimize impacts to vegetation to the greatest extent possible. Vegetation to remain would be protected from construction-related activities by temporary fencing when vegetation is close to construction work or staging areas.

- **PF-AES-2, Reseeding Disturbed Areas:** Apply erosion control seeding and similar measures to all areas of disturbed soil.

AVOIDANCE AND MINIMIZATION MEASURES

Caltrans would incorporate the following AMMs into the Project to avoid and/or minimize potential impacts to visual resources:

- **AMM-AES-1, Selection of Staging Areas:** Ensure that the establishment of staging areas would not require the removal of any but weedy nonnative vegetation or cause the compaction of any tree roots. Staging areas would be located such that they do not block views of the ocean whenever feasible.

- **AMM-AES-2, Comply with Sonoma State Route 1 Repair Guidelines:** The design and construction of the Project would comply with all applicable provisions of the Guidelines, as confirmed by the Office of Landscape Architecture and the Office of Environmental Analysis.

- **AMM-AES-3, Selection of Materials:** In conjunction with the Office of Landscape Architecture, select materials and Project components appropriate for the visual character of the location and to maintain corridor consistency.

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

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

CEQA Significance Determinations for Agriculture and Forest Resources

The Project is located along previously disturbed portions of SR 1 (Figure 1-3). The Project footprint is not located within any forestland or timberland, nor is it located within any Sonoma County Parcels which are under a Williamson Act Contract. The Project sub-areas fall within multiple different zones (Table 3-1).

Table 3-1. Sub-Area Zoning

Sub-Area	Zoning
Sub-Area 1	Grazing Land, Other Land, Farmland of Local Importance
Sub-Area 2	Grazing Land, Other Land, Urban/Built-Up Land, Farmland of Local Importance
Sub-Area 3	Grazing Land, Other Land
Sub-Area 4	Grazing Land, Other Land, Urban/Built-Up Land, Farmland of Local Importance

Source: California Department of Conservation 2016 and 2019

a, b, c, d, and e) No Impact

The Project would not affect agricultural land, would not convert farmland to a non-agricultural use, and is not located within any Sonoma County APNs under a Williamson Act Contract. The Project would not conflict with existing zoning for forest land or timberland, or convert forest land to non-forest use land, as there are no forest lands or timberlands within the Project footprints. The Project would not involve other changes in the existing environment that would result in conversion of forest or agricultural land. Therefore, there would be no impact.

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?	Less Than Significant Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less Than Significant Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR AIR QUALITY

The Project is located in Sonoma County within the San Francisco Bay Area Air Basin under the jurisdiction of the Bay Area Air Quality Management District. Sonoma County is designated as nonattainment for ozone and particulate matter with aerodynamic diameter equal to or less than 2.5 micrometers ($PM_{2.5}$) under national ambient air quality standards (U.S. Environmental Protection Agency [USEPA] 2022), and nonattainment for ozone, $PM_{2.5}$, and particulate matter with aerodynamic diameter equal to or less than 10 micrometers (PM_{10}) under state air quality standards (CARB 2019). It is in attainment or unclassified for other federal and state air quality standards.

a) No Impact

The Project would have temporary construction emissions and construction-related activities would comply with state and local regulations and policies. Emission reduction measures would be implemented as discussed under PF-AQ-1 through PF-AQ-3 (presented at the end of this section) to reduce construction emissions. The Project would not affect vehicle operation on SR 1 or nearby roadways when construction is complete. Long-term emission increases and adverse impacts from the Project are not anticipated. Therefore, the Project would not conflict with the region's air quality plans. There would be no impact to the air quality plans.

b, c, and d) Less Than Significant Impact

The proposed installation of the ground-in centerline rumble strip, widening the shoulders, and installation of wet-night visibility striping would not alter characteristics of SR 1 or local roadways, increase SR 1 transportation capacity, or change the horizontal or vertical alignments of SR 1. No long-term impacts to air quality would occur.

Construction-generated air pollutants are expected to be short-term. Construction-generated air pollutants include emissions resulting from material processing by onsite construction equipment, workers commuting to and from the Project, and traffic delays due to construction. The emissions would be produced at different rates throughout the Project depending on the construction-related activities occurring at that time. Potential impacts to air quality, including emissions of air pollutants, odors affecting nearby sensitive receptors, and exposure of sensitive receptors to pollutants, would be less than significant based on the temporary nature of the Project construction-related activities.

During construction, the Project would comply with Caltrans Standard Specification 14-9, Air Quality, which requires compliance with applicable air-pollution control rules, regulations, ordinances, and statutes. In addition, the Project would implement the construction site BMPs described in PF-AQ-1 through PF-AQ-3 to further reduce air quality impacts.

The Project would have no long-term impacts on air quality and temporary construction-related impacts would be less than significant.

PROJECT FEATURES

Caltrans would incorporate the following standard PFs into the Project to reduce potential impacts to air quality:

- **PF-AQ-1, Dust Control Measures:** Implement dust control measures to minimize airborne dust and soil particles generated from construction-related activities, including watering or applying dust palliative to disturbed areas, preventing and promptly removing trackouts on SR 1 and other public roadways affected by construction traffic, and covering soils or construction materials or providing adequate freeboard (space from the top of the material to the top of the truck) during transport.

- **PF-AQ-2, Construction Vehicles and Equipment:** Maintain and tune the construction vehicles and equipment in accordance with manufacturer's specifications.
- **PF-AQ-3, Limit Idling:** Limit idling times either by shutting construction equipment off when not in use or reducing the maximum idling time to 5 minutes.

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

The Caltrans Office of Biological Sciences and Permits prepared a Natural Environment Study (NES) to evaluate the effects of the Project on biological resources, including sensitive plants and wildlife species (Caltrans 2022j). A summary of the findings is presented here.

The Biological Study Area (BSA), which is defined as the entire area of potential direct and indirect Project impacts includes a 15-foot buffer surrounding the 50 shoulder widening locations and staging areas and is approximately 20.08 acres. The BSA contains portions of the highway prism, potential waters of the U.S., and 27 vegetation types, consisting primarily of coastal scrub, grassland, forest/woodland, riparian habitat, and ruderal (disturbed) areas adjacent to the highway. The BSA excluded the areas of centerline rumble strip that are not adjacent to shoulder widening locations. This is due to the project footprint of the centerline rumble strip occurring entirely within the existing paved highway. Thus, the total project footprint is approximately 161.03 acres while the BSA is approximately 20.08 acres.

Areas outside of the BSA, but adjacent to the Project footprint, were also assessed using literature, aerial images, satellite imagery, and database searches to identify potential wildlife dispersal corridors.

A regional list of special-status wildlife and plant species was compiled using databases to evaluate the potential impacts that could occur to sensitive biological resources as a result of the Project. The database search included the California Natural Diversity Database (CNDDB) (California Department of Fish and Wildlife [CDFW] 2022), the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation Database (USFWS 2022), the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2022), and the National Oceanographic and Atmospheric Administration Fisheries Service (NOAA Fisheries) database (NOAA Fisheries 2022). The special-status wildlife and plant species on the regional lists were evaluated to determine their potential to occur within the BSA.

Various field studies were conducted within the BSA to assess existing natural resources. Field studies used in the preparation of the NES include:

- Biological reconnaissance-level survey and habitat assessment
- Aquatic resource delineation
- Vegetation characterization and rare plant habitat assessment and tree survey

a) Less Than Significant Impact

With implementation of PF-BIO-1 through PF-BIO-11 and AMM-BIO-1 through AMM-BIO-19 as described in this section and summarized in Appendix C, the Project would have a less than significant impact, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW, USFWS, or NOAA Fisheries.

Special-status species that are potentially present within or adjacent to the BSA are discussed here.

Plants

The potential for special-status plant species to occur in the BSA was assessed based on the vegetation types present, the degree of disturbance, the results of the database queries, and whether suitable habitat for each special-status plant species was

observed within the BSA. Protocol-level rare plant surveys were conducted on April 21 and 28, June 20 and 21, and July 15 and 20, 2022. Four special-status plant species were observed and documented within the BSA: coast lily (*Lilium maritimum*, List 1B.1), coastal bluff morning-glory (*Calystegia purpurata* ssp. *saxicola*, List 1B.2), harlequin lotus (*Hosackia gracilis*, List 4.2), and purple-stemmed checkerbloom (*Sidalcea malviflora* ssp. *purpurea*, List 1B.2). No federally listed or state-listed plant species were observed during the surveys.

Implementation of PF-BIO-3, PF-BIO-8, PF-BIO-10, PF-BIO-11, AMM-BIO-1, and AMM-BIO-2 would reduce, avoid, or minimize impacts to special-status plant species and their habitat. The impact would be less than significant.

Wildlife

California Red-Legged Frog

The California red-legged frog (CRLF; *Rana draytonii*) is a federally threatened species and a California Species of Special Concern (SSC). The BSA does not include any critical habitat or any designated recovery units. Suitable breeding habitat was not identified within the BSA; however, the BSA has the potential to provide suitable non-breeding aquatic and upland dispersal habitat. The BSA is within the current known range of CRLF, and there are 20 CNDDB occurrences within 2 miles of the BSA. The nearest recorded observation of CRLF is from 2008 when two adult CRLFs were discovered in a small channel that flows into Miwok Beach, approximately 0.13-mile northeast of Location 15 (CDFW 2022).

Numerous aquatic resources (e.g., drainages, streams, creeks, and ponds) are located within 2 miles of the BSA (i.e., the known dispersal range of CRLF). Ponds and other water bodies that hold water for at least 11 to 20 weeks during the frog's breeding season (November to April timeframe) can provide suitable breeding habitat for the species (Stebbins 1951). There is a potential that CRLF individuals could disperse into the BSA, particularly if these nearby aquatic resources support breeding populations of CRLF.

Potential Project impacts include loss of individuals during vegetation removal and shoulder widening construction. The Project would result in direct temporary effects on both suitable upland dispersal and aquatic non-breeding habitats for CRLF. A total of about 1.045 acres of potential upland dispersal habitat and 0.002 acre of suitable aquatic non-breeding habitat would be temporarily impacted by construction activities including staging, access, and shoulder widening over the 58.58 miles of the Project limits. A total of about 1.081 acre of suitable upland dispersal habitat and less

than 0.001 acre of suitable aquatic non-breeding habitat would be permanently affected by Project activities over the 58.58 miles of the Project limits. All areas of temporary disturbance will be restored to pre-Project conditions following construction.

Implementation of PF-BIO-1, PF-BIO-2, PF-BIO-3, PF-BIO-4, and PF-BIO-7, as well as AMM-BIO-3 through AMM-BIO-5, as summarized in Appendix C, would reduce, avoid, or minimize impacts to CRLF and its habitat. The impact would be less than significant.

Foothill Yellow-Legged Frog

The foothill yellow-legged frog (FYLF; *Rana boylii*) is listed as a California SSC. FYLF is known to occur in several creeks in the vicinity of the Project, and suitable non-breeding FYLF habitat is present throughout the BSA. There are 11 CNDDB occurrences of FYLF within 2 miles of the BSA, most of which are located toward the northern end of the Project limits. The closest CNDDB occurrence of FYLF was documented in July 1954 (two adult FYLF observed [CDFW 2022]), and is only 0.02 mile from Location 49, where aerial imagery shows a channel associated with Chinese Gulch flowing through a cross culvert under SR 1.

It is unlikely that FYLF will be encountered within the BSA given the generally marginal habitat onsite, planned timing of construction avoiding rain events, and implementation of the PFs and AMMs proposed to avoid impacts to CRLF, which will reduce the potential for Project-related impacts to the FYLF. Therefore, the Project is not expected to result in any impacts to FYLF or its habitat. The impact would be less than significant.

Northern Spotted Owl

The northern spotted owl (NSO; *Strix occidentalis caurina*) is a federally and state listed threatened species. There is suitable NSO roosting, nesting, and foraging habitat within the BSA and within the vicinity of the BSA. No NSO individuals or nests were detected by surveyors during the NSO habitat assessment. The BSA is located outside of designated critical habitat for NSO.

Based on the CNDDB/Spotted Owl Viewer, there are over 200 positive detections of NSO within 5 miles of the BSA, with most of the detections occurring in the northern portion of the Project footprint. There are seven NSO Activity Centers (denoting the detection of a territorial pair located at or near a nest site) within 5 miles of the BSA.

The closest Activity Center is associated with six detections of NSO ranging from 0.33 mile to 1.07 miles away from Location 33.

The removal of vegetation within an approximately 0.107-acre (temporary) and 0.071-acre (permanent) area of suitable NSO forest habitat (Douglas fir [*Pseudotsuga menziesii*] forest, redwood [*Sequoia sempervirens*] forest, or bishop pine [*Pinus muricata*] forest) across all 50 shoulder widening locations and staging locations would constitute a minor loss of potential habitat for NSO. Indirect impacts could include those caused by auditory or visual disturbance and would include all rumble strip and shoulder widening activities.

Implementation of PF-BIO-9, as well as AMM-BIO-6 and AMM-BIO-7, as summarized in Appendix C, would reduce, avoid, or minimize impacts to NSO and its habitat. The impact would be less than significant.

Marbled Murrelet

The marbled murrelet (MAMU; *Brachyramphus marmoratus*) is listed as a federally threatened species. Salt Point State Park is designated critical habitat for MAMU and overlaps with portions of the BSA from PM 38.7 to PM 44.7 (Locations 41 to 52). There is suitable MAMU roosting, nesting, and foraging habitat within the BSA and the vicinity of the BSA, particularly in areas north of the Russian River. No MAMU individuals or nests were detected by surveyors during the MAMU habitat assessment. There is only one CNDDB occurrence of MAMU within Sonoma County. This occurrence is within 2 miles of the BSA, located approximately 1.5 miles east of Location 56 and includes four MAMU canopy detections in 1999 (CDFW 2022). MAMU nests in California are found at a mean distance of 8 miles from the coast, and the absence of nests close to the coast is likely due to increased nest predation from corvids and gulls (Miller and Ralph 1995). Therefore, it is unlikely that MAMU nests would be present in the Project footprint, which is about 0.5 mile from the coastline.

The removal of vegetation within an approximately 0.107-acre (temporary) and 0.071-acre (permanent) area of forest habitat (Douglas fir forest, redwood forest, or bishop pine forest) across all locations within and outside of the critical habitat unit for the shoulder widening work would constitute a minor loss of potential habitat for MAMU. Because vegetation removal would occur along or adjacent to the highway embankment that is subject to regular traffic disturbance, the loss of this potential habitat is not likely to adversely affect the local population. Indirect impacts to

MAMU could include those caused by auditory or visual disturbance and would include all rumble strip and shoulder widening work activities.

Implementation of PF-BIO-6 and PF-BIO-9, as well as AMM-BIO-8 and AMM-BIO-9, as summarized in Appendix C, would reduce, avoid, or minimize impacts to MAMU and its habitat. The impact would be less than significant.

Western Snowy Plover

The western snowy plover (SNPL; *Charadrius alexandrinus nivosus*) is a federally threatened species and a California SSC. There is no designated critical habitat for SNPL in the BSA. There is potentially suitable nesting habitat present west of Location 15 at North Salmon Creek Beach and South Salmon Creek Beach. There are two CNDDB occurrences of this species within 2 miles of the BSA, both of which are in the vicinity of Bodega Bay. However, one occurrence is considered a localized extinction. The existing occurrence is located within North Salmon Creek Beach, adjacent to and west of Location 15. One nest was observed at this location in 1978 (CDFW 2022). SNPL are known to winter at this location.

Although the BSA does not contain suitable SNPL habitat, it is in the vicinity of SNPL habitat near Location 15, rumble strip segment 2, and staging area E, and the Project could result in auditory or visual impacts on SNPL. Based on scientific literature, wintering (non-nesting) SNPL may be disturbed when humans encroach to within 130 feet (40 meters), while during the nesting season, SNPL may be disturbed by humans more than 330 feet (100 meters) away (USFWS 2007). Work will not occur during the nesting season (February 1 through September 30) at Location 15, staging area E, or rumble strip segment 2, which are adjacent to suitable SNPL habitat.

Implementation of PF-BIO-6 and PF-BIO-9, as well as AMM-BIO-10 and AMM-BIO-11, as summarized in Appendix C, would reduce, avoid, or minimize impacts to SNPL. The impact would be less than significant.

Myrtle's Silverspot Butterfly and Behren's Silverspot Butterfly

The Myrtle's silverspot butterfly (MSB; *Speyeria zerene myrtleae*) and Behren's silverspot butterfly (BSB; *Speyeria zerene behrensii*) are both listed as federally endangered species. There is no federally designated critical habitat for either species within the BSA. Suitable habitat for *Viola adunca*, the larval host plant for MSB and BSB, occurs within portions of the Project footprint, including mesic grasslands and evergreen forest types observed during the vegetation characterization surveys. The

larval host plant was not observed within the BSA during reconnaissance surveys. The BSA may also provide suitable foraging habitat for adult butterflies.

There are eight CNDDB occurrences of MSB within 2 miles of the BSA; however, three of these occurrences are possibly localized extinctions. The nearest known existing MSB occurrence was observed in 1975 within the vicinity of SR 1, overlapping the BSA of Locations 10 and 11. For BSB, there are three CNDDB occurrences within 2 miles of the BSA; however, one of these occurrences is considered possibly a localized extinction. The nearest known existing BSB occurrence includes observations of adult BSBs along SR 1 near Stewarts Point in 2005, about 0.75 mile south of Location 57.

Occurrence of MSB or BSB in the Project footprint is not expected but cannot be ruled out with complete certainty. Negative findings of the pre-construction survey for *Viola adunca* within the Project footprint will indicate that the footprint does not contain suitable breeding habitat for MSB or BSB. However, suitable foraging habitat may still be present and Project work, such as vegetation grubbing and clearing, may affect MSB and BSB habitat. PF-BIO-8, PF-BIO-10, and PF-BIO-11, as well as AMM-BIO-12, as summarized in Appendix C, would reduce, avoid, or minimize impacts to MSB and BSB and their habitat. The impact would be less than significant.

Western Pond Turtle

The western pond turtle (WPT; *Emys marmorata*) is listed as a California SSC. There is no WPT breeding habitat present within the BSA; however, adjacent stock ponds may provide suitable aquatic habitat along with the Estero Americano, Russian River, Salmon Creek, and other drainages within the vicinity of the BSA. There is a potential for this species to be found in upland grassland habitat, ditches, or drainages near and in the BSA.

There are nine CNDDB occurrences of WPT within 2 miles of the BSA. The closest CNDDB occurrence of WPT overlaps the BSA at Location 6, where four adult WPT were observed basking on a grassy bank adjacent to a perennial plunge pool at the outlet of a culvert beneath the SR 1 crossing of Ebabias Creek in 2008.

Potential Project impacts include loss of individuals during vegetation removal and shoulder widening. The Project would result in direct temporary effects on both suitable upland dispersal and aquatic non-breeding habitats for WPT. Approximately 1.045 acres of potential upland dispersal habitat and an additional 0.002 acre of suitable aquatic non-breeding habitat would be temporarily impacted by construction

activities including staging, access, and shoulder widening. Approximately 1.081 acre of suitable upland dispersal habitat and less than 0.001 acre of suitable aquatic non-breeding habitat would be permanently affected by Project activities. All areas of temporary disturbance will be restored to pre-Project conditions following construction.

Implementation of PF-BIO-1, PF-BIO-2, PF-BIO-3, PF-BIO-4, and PF-BIO-7, as well as AMM-BIO-13, as summarized in Appendix C, would reduce, avoid, or minimize impacts to WPT and its habitat. The impact would be less than significant.

Special Status Bats (Pallid Bat, Western Red Bat, and Townsend's Big-Eared Bat)

The pallid bat (*Antrozous pallidus*), western red bat (*Lasiurus blossevillii*), and Townsend's big-eared bat (*Corynorhinus townsendii*) are all listed as California SSC. There are no CNDDB occurrences of pallid bat within 2 miles of the BSA but, potentially suitable structures for pallid bat roosting can be found adjacent to Locations 5, 6, 29, 30, 33, 50, 52, 53, and 61. There are no CNDDB occurrences of western red bat within 2 miles of the BSA however, potentially suitable roosting trees exist within the riparian corridors adjacent to the Locations 3, 5, 23, 28, 29, 49, 55, 58, and 60. There are three CNDDB occurrences of Townsend's big-eared bat within 2 miles of the BSA. The closest occurrence is located adjacent to Location 17 and includes the detection of a maternity roost of about 50 females and young observed in 2014 in an old ranch house attic. Potentially suitable structures, including hollows of redwood trees, abandoned structures, and bridges, for Townsend's big-eared bat roosting can be found adjacent to Locations 5, 6, 29, 30, 33, 50, 52, 53, and 61. No bats or bat roosts were detected by surveyors at any location during the bat habitat assessment.

Potential Project impacts include temporary loss of foraging habitat and temporary or permanent loss of potential roosting habitat as a result of tree removal activities. In addition, noise and visual disturbance could impact potential roosting via construction noise. No impact to individuals is expected as a result of this Project.

Implementation of PF-BIO-6, as well as AMM-BIO-14 and AMM-BIO-15, as summarized in Appendix C, would reduce, avoid, or minimize impacts to pallid bat, western red bat, and Townsend's big-eared bat and their habitat. The impact would be less than significant.

Sonoma Tree Vole

The Sonoma tree vole (STV; *Arborimus pomo*) is a listed as a California SSC. There is suitable habitat for STV within the BSA, including forest habitat (Douglas fir forest, redwood forest, or bishop pine forest). There are nine CNDDB occurrences of STV within 2 miles of the BSA. The closest occurrence overlaps the BSA at Locations 44, 45, 46, and 47 and intersects SR 1 (CDFW 2022).

Ground-disturbing activities and tree removal could destroy STV nests or injure or kill STVs inhabiting nests if they occur within the Project work areas. STVs are nocturnal and might reside within nests during daytime construction activities. The Project also could disturb or displace STVs from nearby nests if they occur in proximity to construction activities.

The removal of the vegetation within an approximately 0.107-acre (temporary) and 0.071-acre (permanent) area of forested habitat for the shoulder widening work would constitute a minor loss of potential habitat for STV. Because it is a minor loss of forest habitat, the Project is unlikely to affect the local vole population.

Implementation of PF-BIO-6, as well as AMM-BIO-16, as summarized in Appendix C, would reduce, avoid, or minimize impacts to STV and its habitat. The impact would be less than significant.

California Giant Salamander and Red-bellied Newt

The California giant salamander (CGS; *Dicamptodon ensatus*) and red-bellied newt (RBN; *Taricha rivularis*) are both listed as California SSC. There are 14 CNDDB occurrences of CGS within 2 miles of the BSA. Additionally, surveyors discovered two juvenile CGS within a creek in the Caltrans ROW adjacent to Location 49. There are three CNDDB occurrences of RBN within 2 miles of the BSA. Wetlands, waters, and riparian and forested areas within the BSA could provide suitable habitat for these species.

Potential impacts to forested aquatic, stream, and riparian habitat for CGS and RBN includes 0.277 acre of temporary impacts resulting from vegetation trimming and removal for access and staging and 0.102 acre of permanent impacts resulting from shoulder widening.

Implementation of PF-BIO-1, PF-BIO-3, PF-BIO-4, and PF-BIO-7, as well as AMM-BIO-3, as summarized in Appendix C, would reduce, avoid, or minimize impacts to CGS and RBN and their habitat. The impact would be less than significant.

b) Less Than Significant Impact

Section 30107.5 of the California Coastal Act (CCA) defines environmentally sensitive natural communities as "any areas in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments." Section 30240(a) of the CCA calls for the protection of environmentally sensitive habitat areas (ESHAs) and states that "ESHAs shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas."

ESHAs

There are two types of ESHAs within the BSA: terrestrial ESHAs and aquatic ESHAs. Terrestrial ESHAs include native vegetation alliances listed in CDFW's California Sensitive Natural Communities List with ranks between S1 to S3 and excludes those that are either substantially disturbed or are co-dominated or dominated by non-native species. Aquatic ESHAs include all coastal streams, wetlands, and riparian areas and consist of waters of the U.S. and State, California Coastal Commission (CCC)-only jurisdictional wetlands, and CDFW jurisdiction riparian habitat. The Project would temporarily impact 0.172 acre and permanently impact 0.151 acre of terrestrial ESHAs. Temporary impacts to aquatic ESHAs include 0.033 acre of impact to wetlands and 0.016 acre of impact to riparian areas, totaling 0.049 acre of temporary impacts. Permanent impacts to aquatic ESHAs include 0.022 acre of impact to wetlands and 0.005 acre of impact to riparian areas, totaling 0.027 acre of permanent impacts. Project impacts to ESHAs will result from direct disturbance from shoulder widening and vegetation removal within the Project footprint.

All impacted habitats would be reseeded at the end of each construction season, and impacts would be reduced where feasible. Offsite and onsite opportunities to reduce impacts would be further assessed during the design phase. Impacted riparian and upland habitats would be revegetated with appropriate native species. Impacted trees would be replaced; therefore, there would be a less than significant impact on ESHAs.

Implementation of PF-BIO-5, PF-BIO-8, PF-BIO-10, PF-BIO-11, AMM-BIO-1, AMM-BIO-17, and AMM-BIO-18 would reduce, avoid, or minimize impacts to terrestrial and aquatic ESHAs, including riparian habitat. Impacts would be less than significant.

c) Less Than Significant Impact

The Project would have a less than significant impact on federally protected wetlands, as defined by Section 404 of the Clean Water Act (CWA), including, but not limited to, marsh, vernal pool, and coastal areas, through direct removal, filling, hydrological interruption, or other means with AMMs incorporated. The Project would also have a less than significant impact on state protected wetlands, defined under Section 30121 of the CCA as "lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens," with AMMs incorporated.

A U.S. Army Corps of Engineers (USACE) aquatic resource delineation was conducted for federally protected wetlands and other waters and the BSA was found to support 0.206 acre (706 linear feet) of waters of the United States and State, including palustrine wetlands (0.152 acre), palustrine scrub-shrub wetlands (0.025 acres acre), other waters such as riverine (0.029 acre/330 linear feet), and culverted waters (376 linear feet). These impacts would be verified by USACE during the design phase. A CCC aquatic resources delineation report would be prepared, and verified by the CCC, during the design phase.

Approximately 0.0274 acre of potentially jurisdictional wetlands and approximately 0.002 acre of potentially jurisdictional other waters would be temporarily impacted by access and staging for the shoulder widening work. All temporarily impacted areas would be restored and revegetated to minimize impacts to habitat functionality. Approximately 0.022 acre of potentially jurisdictional wetlands and less than 0.001 acre of potentially jurisdictional other waters would be permanently impacted by shoulder widening. Specific compensation for permanent impacts will be determined through consultation with agencies during the permitting process.

Implementation of PF-BIO-1, PF-BIO-3, PF-BIO-5, PF-BIO-6, and AMM-BIO-19, as summarized in Appendix C, would reduce, avoid, or minimize impacts to aquatic resources. Therefore, impacts would be less than significant.

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

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

f) No Impact

The 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. There would be no impact.

PROJECT FEATURES

Caltrans would incorporate the following standard PFs into the Project to reduce potential impacts to biological resources:

- **PF-BIO-1: Seasonal Avoidance**. The Project will develop temporary BMPs in compliance with Standard Specification 13-3.01C(3) and develop and deploy appropriate BMPs consistent with the Rain Event Action Plan at least 48 hours in advance of a forecasted storm that has a 50% probability of rainfall within 72 hours.

- **PF-BIO-2: Worker Environmental Awareness Training**. Prior to ground-disturbing activities, the Project Biologist will conduct an education program for all construction personnel. At a minimum, the training will include a description of special-status species, migratory birds, and their habitats, how the species might be encountered within the Project area, an explanation of the status of these species and protection under the federal and state regulations, the measures to be implemented to conserve listed species and their habitats as they relate to the work site, boundaries within which construction may occur, and how to best avoid the incidental take of listed species. The field meeting will include topics on species identification, life history, descriptions, and habitat requirements during various life stages. Emphasis will be placed on the importance of the habitat and life stage requirements within the context of Project maps showing areas where PFs/AMMs are to be implemented. The program will include an explanation of applicable federal and state laws protecting endangered species as well as the importance of compliance with Caltrans and various resource agency conditions.

- **PF-BIO-3: Environmentally Sensitive Area Fencing.** Before starting construction, environmentally sensitive area (ESAs) (defined as areas containing

sensitive habitats adjacent to or within construction work areas for which physical disturbance is not allowed) will be clearly delineated as needed using high visibility fencing. The ESA fencing will remain in place at each location until work at that location is complete and will prevent construction equipment or personnel from entering sensitive habitat areas. The ESA fencing also serves to delineate the Project footprint in which all construction activity is to occur. The final Project plans will depict the locations where ESA fencing will be installed and how it will be assembled/constructed. The special provisions in the bid solicitation package will clearly describe acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbing activities within ESAs. The ESA fencing will be removed at each location as necessary.

- **PF-BIO-4: Wildlife Exclusion Fencing**. Before starting construction, at the discretion of the Project Biologist, wildlife exclusion fencing (WEF) may be installed along the Project footprint perimeter in the areas where wildlife could enter the Project footprint. The final Project plans will depict the locations where WEF will be installed, and how it will be assembled/constructed. The special provisions in the bid solicitation package will clearly describe acceptable WEF fencing material and proper WEF installation and maintenance. The WEF will remain in place at each location until work at that location is complete and will be regularly inspected for stranded animals and fully maintained daily. The WEF will be removed following completion of construction activities.

- **PF-BIO-5: Stormwater Best Management Practices**. In accordance with Regional Water Quality Control Board requirements, a Stormwater Pollution Prevention Plan will be developed and erosion control BMPs implemented to minimize wind- or water-related erosion. The Caltrans Construction Site BMP Manual (Caltrans 2017) provides guidance for the inclusion of provisions in all construction contracts to protect sensitive areas and prevent and minimize stormwater and non-stormwater discharges. At a minimum, protective measures will include the following:

  a. Prohibiting discharge of pollutants from vehicle and equipment cleaning into storm drains or watercourses.

b. Servicing vehicles and construction equipment, including fueling, cleaning, and maintenance at least 50 feet from aquatic habitat, unless separated by topographic or engineered drainage barrier.

c. Collecting and disposing of concrete wastes and water from curing operations in appropriate washouts, located at least 50 feet from watercourses.

d. Maintaining spill containment kits onsite at all times during construction operations and/or staging or fueling of equipment.

e. Using water trucks and dust palliatives to control dust in unvegetated areas and covering temporary stockpiles when weather conditions require.

f. Installing coir rolls or straw wattles along or at the base of slopes during construction to capture sediment. To prevent wildlife from becoming entangled or trapped in erosion control materials, plastic monofilament netting such as erosion control matting or similar material will not be used. Acceptable substitutes would include coconut coir matting or tackifying hydroseeding compounds.

g. Protecting graded areas from erosion using a combination of silt fences, fiber rolls along toes of slopes or along edges of designated staging areas, and erosion control netting (jute or coir) as appropriate on sloped areas.

h. Establishing permanent erosion control measures such as bio-filtration strips and swales to receive storm water discharges from the highway or other impervious surfaces to the maximum extent practicable.

- **PF-BIO-6: Construction Site Management Practices**. The following site restrictions will be implemented to avoid or minimize potential effects on listed species and their habitats:

  a. Enforcing a speed limit of 15 miles per hour in the Project footprint in unpaved and paved areas to reduce dust and excessive soil disturbance.

  b. Locating construction access, staging, storage, and parking areas within the Project footprint outside any designated ESA. Access routes, staging and storage areas, and contractor parking will be limited to the minimum necessary to construct the proposed Project. Routes and boundaries of roadwork will be clearly marked before initiating construction or grading.

c. Certifying, to the maximum extent practicable, borrow material is nontoxic and weed-free.

d. Enclosing food and food-related trash items in sealed trash containers and removing them from the site at the end of each day.

e. Prohibiting pets from entering the Project footprint during construction.

f. Prohibiting firearms within the Project site, except for those carried by authorized security personnel or local, state, or federal law enforcement officials.

g. Maintaining equipment to prevent the leakage of vehicle fluids such as gasoline, oils, or solvents, and developing a Spill Response Plan. Hazardous materials such as fuels, oils, and solvents will be stored in sealable containers in a designated location that is at least 50 feet from aquatic habitats.

- **PF-BIO-7: Avoidance of Entrapment**. During construction, all excavated, steep-walled holes or trenches more than 1 foot deep will be covered at the close of each working day using plywood or similar materials or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. Pipes, culverts, or similar structures stored in the BSA overnight will be inspected before they are subsequently moved, capped, or buried.

- **PF-BIO-8: Vegetation Removal.** Vegetation that is growing in locations where shoulder widening will be placed will be cleared. Vegetation will be cleared only where necessary and will be cut above soil level, except in areas that will be permanently impacted or excavated. This will allow plants that reproduce vegetatively to resprout after construction. Clearing and grubbing of woody vegetation will occur by hand or using construction equipment such as mowers, backhoes, and excavators. If clearing and grubbing occurs between February 1 and September 30, the Project Biologist will survey for nesting birds within the areas to be disturbed (including a perimeter buffer of 50 feet for passerines/migratory birds and 300 feet for raptors) before clearing activities begin. All nest avoidance requirements of the Migratory Bird Treaty Act and CDFW Code will be observed, such as establishing appropriate protection buffers around active nests until young have fledged. Cleared vegetation will be removed from the Project footprint to prevent attracting animals to the Project footprint.

- **PF-BIO-9: Pre-construction Nesting Bird Surveys and Nest Avoidance.** During the nesting season (February 1 through September 30), pre-construction surveys for nesting birds will be conducted by the Project Biologist no more than 72 hours prior to the start of construction activities. If work is to occur within 300 feet of active raptor nests or 50 feet of active non-game bird nests, a non-disturbance buffer will be established at a distance sufficient to minimize disturbance based on the nest location, topography, cover, the species' sensitivity to disturbance, and the intensity/type of potential disturbance. To minimize and avoid take of migratory birds, their nests, and their young, Caltrans will conduct vegetation and tree trimming outside of the bird nesting season, prior to construction. This work will be limited to vegetation and trees that are within the Project footprint. Additional bird nesting surveys will be required if work must occur during the nesting season.

- **PF-BIO-10: Replant, Reseed, and Restore Disturbed Areas**. Caltrans will restore temporarily disturbed areas to the maximum extent practicable. Exposed slopes and bare ground will be reseeded at the end of each construction season, with commercially available, locally appropriate native grass and shrub seeds to stabilize and prevent erosion. Where disturbance includes the removal of trees and woody shrubs, native species will be replanted.

- **PF-BIO-11: Reduce Spread of Invasive Species**. Caltrans will 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. In the event that noxious weeds are disturbed or removed during construction-related activities, the contractor will be required to contain the plant material associated with these noxious weeds and dispose of it in a manner that will not promote the spread of the species. The contractor will be responsible for obtaining all permits, licenses, and environmental clearances for properly disposing of materials. Areas subject to noxious weed removal or disturbance will 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 footprint will be covered to the extent practicable with heavy black plastic solarization material until the end of the Project construction.

AVOIDANCE AND MINIMIZATION MEASURES

Caltrans would incorporate the following standard AMMs to avoid or minimize potential impacts to biological resources:

- **AMM-BIO-1: Restoration (Replant, Reseed, and Restore Disturbed Areas).** Restoration of temporary disturbance areas, including ESHA, will be accomplished through onsite revegetation. Restoration of temporary impact areas will occur within the same season they are disturbed so that the duration of disturbance at each location will not exceed 12 months through a non-standard edit to the Erosion Control General Specifications.

  Restoration of temporarily disturbed areas will be performed at a 1:1 ratio. At the end of each construction season, exposed slopes and bare ground will be reseeded with native grasses and shrubs to stabilize and prevent erosion.

  Native trees removed from riparian or other habitats or within the CDFW jurisdiction will be replanted following construction.

- **AMM-BIO-2: Designation of Special-status Plant Populations.** In conjunction with pre-construction survey AMMs, additional focused species checks and mapping of any observed populations of special-status plants within the BSA will be performed the season prior to construction to delineate the current limits of these populations prior to construction. These areas will be denoted as ESA and be avoided as feasible.

  If avoidance of mapped populations within the Project footprint is not possible, the Caltrans Biologist will consult with appropriate agencies on suitable salvage, propagation, or relocation protocols. If avoidance is not possible, a special-status plant restoration plan will be prepared for agency review prior to special-status plant salvage or restoration. The special-status plant restoration plan will include information on performance criteria, monitoring requirements, and reporting.

- **AMM-BIO-3: Biological Monitoring**. The Caltrans biological monitor will be present during construction activities where take of a listed species could occur. Through communication with the Resident Engineer or designee, the biological monitor may stop work if deemed necessary for any reason to protect listed species and will advise the Resident Engineer or designee on how to proceed accordingly.

- **AMM-BIO-4: Pre-construction CRLF Surveys.** Visual encounter surveys will be conducted by the Caltrans biological monitor immediately before ground-disturbing activities. Suitable non-breeding aquatic and upland habitat within the Project footprint, including refugia habitat such as under shrubs, downed logs, small woody debris, and burrows will be inspected. If a CRLF is observed, the individual will be evaluated and relocated by the biological monitor in accordance with the observation and handling protocol outlined under Item 4. Fossorial mammal burrows will be inspected for signs of frog usage, to the extent practicable. If it is determined that a burrow may be occupied by a CRLF, the Resident Engineer and USFWS will be contacted, and work within the vicinity of the burrow will stopped.

- **AMM-BIO-5: Stop Work for CRLF Observation.** If the CRLF is encountered in the Project footprint, work within 50 feet of the animal will cease immediately and the Resident Engineer and approved biologist will be notified. Based on the professional judgment of the approved biologist, if Project activities can be conducted without harming or injuring the animal, it may be left at the location of discovery and monitored by the approved biologist. Project personnel will be notified of the finding, and at no time will work occur within 50 feet of the animal without an approved biologist present.

- **AMM-BIO-6: Pre-construction NSO Surveys.** A focused pre-construction non-protocol survey will be conducted during the NSO nesting season in areas of potential NSO habitat. The NSO-focused surveys will be conducted by a qualified biologist within 165 feet of suitable NSO habitat. This includes areas with observed suitable habitat and areas with proximal occurrence data, including widening Locations 27, 29, 30, 33, 35 to 38, and 41 to 61; associated staging areas; and rumble strip segments 3 and 4. If surveys are not completed, work at these un-surveyed locations would be restricted to between August 1 and February 28, unless surveys determine the suitable habitat or site is unoccupied or the owls are not nesting.

  For Project work within 165 feet of a known nest site or nesting habitat that cannot be scheduled outside of the nesting season, and where the 165-foot buffer cannot be maintained, reduced buffers should be implemented based on "Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California" (USFWS 2006).

- **AMM-BIO-7: Occupied NSO Habitat.** If NSO surveys (using the USFWS' 2012 survey protocol [USFWS 2012]) detect an active NSO nesting site within 165 feet of the Project footprint, or Caltrans biologist presumes spotted owl occupancy without conducting surveys, Caltrans Resident Engineer will adhere to the following measures:

    a. The start of construction within 165 feet of the NSO nest will be delayed until the young have fledged. NSO young generally leave the nest (that is, fledge) in late May or June. The NSO nest will be monitored by a USFWS-approved biologist to document when the young have left the nest and construction can start.

    b. To minimize noise and visual disturbances generated from the proposed Project to the degree possible, all construction equipment, fixed or mobile, will be fitted with properly operating and maintained mufflers consistent with manufacturers' standards. Additionally:

        i. No proposed activity generating sound levels 20 or more decibels (dB) above ambient sound levels or with maximum sound levels (ambient sound level plus activity-generated sound level) above 90 dB (excluding vehicle backup alarms) may occur within suitable NSO nesting or roosting habitat during most of the nesting season (February 1 to July 9) (USFWS 2014). These above-ambient sound level restrictions will be lifted after July 31, after which the USFWS considers the above-ambient sound levels as having "no effect" on nesting NSO and dependent young.

        ii. No human activities will occur within a visual line of sight of 131 feet or less from any known NSO nest locations within the Project footprint (USFWS 2014).

- **AMM-BIO-8: Focused MAMU Surveys.** MAMU-focused non-protocol surveys will be conducted by a qualified biologist at all Project locations that are within 0.25 mile of suitable MAMU habitat (Locations 29, 30, 33, 41 through 44, 47, 49 through 55, and 58, and rumble strip segments 3 and 4). If surveys are not completed, work at these locations would be restricted to between August 1 and February 28. For Project work within 0.25 mile of a known MAMU nest site that cannot be scheduled outside of the nesting season, reduced buffers should be implemented based on "Estimating the Effects of Auditory and Visual

Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California" (USFWS 2006).

- **AMM-BIO-9: MAMU Habitat.** If MAMU surveys (using the USFWS's survey protocol [USFWS 2014]) determine that the work area is occupied by nesting MAMU, or Project Biologist presumes MAMU occupancy without conducting surveys, Caltrans Resident Engineer will adhere to the following:

  a. Vegetation Removal or Alteration:

     i. No potential MAMU nest trees will be removed during the nesting season (March 24 to September 15),

  However, potential suitable MAMU habitat may be removed or altered outside the nesting season (September 16 to March 23).

     ii. Caltrans Biologist shall coordinate with USFWS to determine whether proposed habitat removal within designated critical habitat would constitute an adverse impact during the design phase.

  b. Auditory or Visual Disturbance:

     i. No proposed activity generating sound levels 20 dB or more above ambient sound levels or with maximum sound levels (ambient sound level plus activity-generated sound level) above 90 dB (excluding vehicle backup alarms) may occur within 0.25 mile of suitable MAMU nesting habitat as determined by the Project Biologist from March 24 to August 5 (USFWS 2014).

     ii. Between August 6 and September 30 (end of MAMU nesting season) of any year, Project activities adjacent to suitable nesting habitat that will generate sound levels equal to or greater than 10 dB above ambient sound levels will observe a daily work window beginning 2 hours after sunrise and ending 2 hours before sunset. However, preparation work that does not generate noise above ambient sound levels, including street sweeping and manual removal of pavement markers, can occur during all hours.

     iii. No human activities will occur within the visual line of sight of 131 feet or less from an active MAMU nest from March to August (USFWS 2006).

If non-protocol surveys determine that all suitable MAMU nesting habitat within the Project footprint is considered unoccupied, suitable nesting habitat may be removed or altered without seasonal restrictions. The removal of a few small trees and shrubs would be exempt from this requirement.

- **AMM-BIO-10: SNPL Seasonal Avoidance.** At Location 15, staging area E, and rumble strip segment 2, which are near suitable habitat for the SNPL, no construction activities will be performed during the snowy plover nesting season, March 1 through September 14. A no-disturbance buffer of 130 feet from suitable habitat for SNPL will be implemented outside the nesting season, September 15 through February 28.

- **AMM-BIO-11: Pre-construction SNPL Surveys.** A USFWS-approved biologist will conduct pre-construction clearance surveys for snowy plover prior to work at Location 15 and staging area E. At least two surveys will be conducted at those locations: one survey will be between 14 and 3 calendar days prior to work starting, and another will be within 3 calendar days prior to work starting. Surveys will be conducted along the beach area (on foot within accessible areas or using binoculars) within a 500-foot radius of the Project footprint. Tidal phase, weather, wind speeds, and visibility will be recorded during each survey. Surveyors will document observations and banded birds but will not approach a bird on a nest or an adult with chicks, or female head-bobbing, a male tail-dragging, birds copulating, nest scraping, birds performing a broken wing display, or an adult with chicks. Positive identifications should be reported to USFWS and State Parks within 24 hours.

- **AMM-BIO-12: Pre-construction Survey for *Viola adunca*.** A pre-construction survey for *Viola adunca* will be conducted in the early spring (late February/early March), referencing phenology trends observed at Fort Ross or other nearby reference populations. If *Viola adunca* are found in the work area, they will be flagged for avoidance with ESA fencing in coordination with the Project Biologist and Resident Engineer.

- **AMM-BIO-13: Pre-construction WPT Surveys.** An approved biologist will conduct pre-construction surveys for WPT immediately before ground-disturbing activities in areas identified as suitable WPT habitat within the Project footprint. If WPT is found within the Project footprint and at risk of harm, then it will be relocated by an approved biologist outside of the Project footprint.

- **AMM-BIO-14: Pre-Construction Surveys for Bats**. Prior to the start of work at each location, a qualified biologist will conduct a visual survey of the area for bat species. Any bats observed in the BSA should be allowed to leave on its own.

- **AMM-BIO-15: Bat Surveys Prior to Vegetation Removal.** A survey by a qualified bat biologist will be conducted prior to vegetation removal to determine if two-phase tree removal methods are appropriate for any trees scheduled for removal, or if a biological monitor should be required to be present during tree removal. The qualified biologist should inspect all trees marked for removal for bat roost habitat (e.g., crevice and foliage habitat types).

- **AMM-BIO-16: Pre-construction Surveys for Sonoma Tree Vole.** Before the start of construction, a qualified biologist will conduct a survey of the Project work areas and a 30-foot buffer beyond the Project footprint to determine the location of STV nests. Any nests detected during the surveys will be recorded and mapped in relation to the Project footprint. In addition, the biologist will evaluate any signs of current activity. A 30-foot equipment exclusion buffer will be established around nests that can be avoided; within such buffers, all vegetation will be retained, and nests will remain undisturbed.

- **AMM-BIO-17: Impacts to ESHAs.** Temporary impacts to ESHAs would be mitigated at a ratio of at least 1:1. Permanent impacts to ESHAs and aquatic resources would be mitigated at a ratio of at least 3:1. Impacts to ESHAs, mitigation ratios, and appropriate compensation would be confirmed with the appropriate agencies during the design phase.

- **AMM-BIO-18: Tree Replacements.** The trees removed for the Project would be replaced or compensated via an in-lieu fee. Appropriate tree replacement locations or in-lieu fee compensation would be determined during the design phase and in consultation with the appropriate agencies.

- **AMM-BIO-19: Impacts to Waters**. Temporarily impacted wetland and other waters would be restored and revegetated to mitigate impacts to habitat functionality. Permanent impacts would be mitigated at a ratio of at least 1:1. Impacts to waters, mitigation ratios, and appropriate compensation would be confirmed with the appropriate agencies during the permitting process.

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?	Less Than Significant Impact
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	Less Than Significant Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR CULTURAL RESOURCES

Caltrans' Professionally Qualified Staff (PQS) conducted a cultural resources investigation for the Project in accordance with the *First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, 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 Federal-Aid Highway Program in California* (PA) (FHWA 2014) and prepared a *Section 106 Closeout Memo for the Sonoma 1 Install Centerline Rumble Strip Project between Post Miles 0.00 and 58.58 on State Route 1, in Sonoma County* (Caltrans 2022g).

The area of potential effects (APE) for the Project was established in consultation with Caltrans' PQS and the Project Manager on October 17, 2022. The archaeological and architectural history APE were established to include all areas of direct impact and the maximum extent of construction-related activities. Caltrans' PQS reviewed Project information, the Caltrans Cultural Resource Database, as-built plans, aerial photographs, and historical maps to evaluate the Project's potential to affect cultural resources in the APE. Thirty-six archaeological sites were identified and included in the archaeological APE. The vertical APE/Area of Direct Impact (ADI) is the maximum extent of ground disturbance from construction-related activities, which is anticipated to be 1.8 feet below ground surface (Caltrans 2022g).

On June 22, 2021, Caltrans contacted the Native American Heritage Commission (NAHC) and requested a review of their Sacred Lands File (SLF). The results of the SLF were positive and a list of Native American contacts with potential interest or information regarding the APE was provided. On September 21, 2021, under Assembly Bill (AB) 52 and as part of the Section 106 of the National Historic

Preservation Act process, Caltrans' Office of Cultural Resources Studies (OCRS) sent consultation initiation letters to all contacts provided by the NAHC (Caltrans 2022g).

On October 15, 2021, the Tribal Historic Preservation Officer (THPO) for the Federated Indians of Graton Rancheria (Graton Rancheria), Ms. McQuillen, responded and requested consultation on the Project. Project details were discussed with Ms. McQuillen at the OCRS quarterly meeting held with Graton Rancheria on February 17, 2022. At the meeting, Ms. McQuillen requested to continue receiving updates on the cultural resources studies as the Project moves forward. On August 5, 2022, an email was sent to Ms. McQuillen informing her of the scheduled pedestrian survey scheduled for August 15 and 16, 2022. Ms. McQuillen did not respond; however, at the August 25, 2022, quarterly meeting with Graton Rancheria, updates from the survey and the cultural compliance path, including avoidance measures for known sites, were discussed with Ms. McQuillen. Consultation with Graton Rancheria is ongoing and will continue throughout the life of the Project (Caltrans 2022g).

A follow-up consultation letter was sent to the Kashia Band of Pomo Indians of the Stewarts Point Rancheria (Kashia Pomo) THPO, Mr. Macias, on April 22, 2022. On July 26, 2022, an email was sent to Mr. Macias informing him of the pedestrian survey scheduled for August 15 and 16, 2022. Mr. Macias responded the same day requesting a copy of the site records for the Project locations. Site maps for each of the sites along the Project corridor were sent to Mr. Macias on August 12, 2022. He responded the same day noting that there are archaeological sites within the aboriginal territory of the Kashia Pomo and requested a site visit and monitoring for all ground disturbing work. On September 19, 2022, Caltrans Archaeology Branch Chief Kathryn Rose and Caltrans Archaeologist Althea Asaro met with two members of the Kashia Pomo to review site locations of importance. The Project was discussed, and all parties agreed that while all construction-related activities have been placed outside of known archaeological site boundaries, certain Project locations were adjacent to known resources; therefore, Environmentally Sensitive Areas (ESAs) would need to be established to protect these resources in addition to monitoring the ESAs to ensure compliance. Consultation with the Kashia Pomo will be ongoing throughout the life of the Project (Caltrans 2022g).

No built resources were identified in the APE. On August 15, 2022, Caltrans archaeologists conducted an intensive pedestrian survey of the entire APE. A total of 36 archaeological resources have been identified within the APE; however, none are

located in the ADI. Four of these sites were identified by local Tribes as significant, and avoidance measures in the form of ESAs were requested as a precaution to protect them. Only one of the four sites has been evaluated for inclusion in the National Register of Historic Places (NRHP), and it was determined eligible on February 13, 2002, with SHPO concurrence. The other three sites are considered eligible for inclusion in the NRHP for the purposes of this Project only because they would be protected in their entirety from any potential effects through the establishment of ESAs, in accordance with Stipulation VIII.C.3 of the PA.

Pursuant to the PA, Caltrans OCRS determined that a Finding of No Adverse Effect with Standard Conditions – ESA is appropriate for the Project. A Historic Property Survey Report, Archaeological Survey Report, and ESA Action Plan were compiled for the Project in support of this finding. The Caltrans Cultural Studies Office concurred with the finding on November 10, 2022.

a) No Impact

There were no built environment resources identified in the APE. Therefore, there would be no impact.

b and c) Less Than Significant Impact

California law recognizes the need to protect interred human remains, particularly Native American burials and associated items of patrimony, from vandalism and inadvertent destruction. The procedures for the treatment of discovered human remains are contained in the California Health and Safety Code Sections 7050.5 and 7052, and the California Public Resources Code Section 5097.

Implementation of PF-CULT-1, PF-CULT-2, and PF-CULT-3 would reduce the impact to less than significant.

PROJECT FEATURES

Caltrans would incorporate the following PFs to reduce impacts to cultural resources:

- **PF-CULT-1, Establish and Enforce ESAs:** Archeological ESAs will be delineated on the plans and described in the specifications Appropriate protective measures including demarcations with flags or high visibility spray paint, access restrictions, and monitoring of the ESA boundaries by a qualified archaeologist and local tribal representatives will be implemented during construction.

- **PF-CULT-2, Cease Work Upon Discovery of Cultural Resources:** Cease work if cultural resources are encountered during Project-related ground-disturbing activities, have a qualified archaeologist assess the significance of the resource, and implement appropriate avoidance or treatment measures, in coordination with local consulting tribes.

  If buried cultural materials are encountered during construction, work would be stopped until a qualified archaeologist can evaluate the nature and significance of the find. The need for archaeological and Native American monitoring during the remainder of the Project would be reevaluated by Caltrans Archaeologists and local consulting tribes as part of the treatment measure determination. The archaeologist would consult with appropriate Native American representatives in determining suitable treatment for unearthed cultural resources if the resources are Native American in nature.

- **PF-CULT-3, Stop Work Upon Discovery of Human Remains:** In accordance with the California Health and Safety Code, if human remains are uncovered during construction-related activities, all such activities within a 60-foot radius of the find will be halted immediately and the Project's designated representative will be notified. The contractor or lead person on the Project will immediately notify the OCRS Office Chief and/or the District Native American Coordinator (DNAC). Once the remains are determined human, the lead person, OCRS Office Chief, or DNAC will contact the County Coroner and the NAHC. Although the Coroner has the ultimate responsibility to contact the NAHC, Caltrans OCRS contacts the NAHC at this time to provide information on the discovery and to assure the NAHC that appropriate action is being taken. The Coroner is required to examine the discovery of human remains within 48 hours of received notification of such a discovery on private or state lands (California Health and Safety Code Section 7050.5[b]). If the Coroner inspects the remains and determines that the remains are not Native American and/or determines they are a result of a wrongful death, the Coroner may take possession of the remains for further inquiry, release them to next of kin, or order the body to be reinterred. After the above action has been taken, work may resume on the Project. If the Coroner determines that the remains are those of a Native American, he or she must contact the NAHC by phone within 24 hours of making the determination (California Health and Safety Code Section 7050.5[c]). The Project's designated representative will be responsible for acting upon notification of discovery of Native American human remains, as identified in detail in California Public

Resources Code Section 5097.9. The Project's designated representative and the professional archaeologist will contact the Most Likely Descendent (MLD), as determined by the NAHC, regarding the remains. The MLD, in cooperation with the property owner and Caltrans, will determine the ultimate disposition of the remains. The lead person ensures that the recommendations are followed. After the appropriate actions are taken, Project work may resume.

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 Impact
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 was prepared by the Caltrans Office of Environmental Engineering (Caltrans 2022h). A summary of the findings is presented here.

a) Less Than Significant Impact

Greenhouse gases (GHGs) are the most extensively studied byproducts of energy consumption because they are linked to climate change. To assess energy consumed by construction equipment and vehicles, the Construction Emissions Tool 2020 (CAL-CET 2020) version 1.0, developed by Caltrans, was used to quantify carbon dioxide (CO_2) emissions. The USEPA's GHG equivalencies formulas were used to convert CO_2 to fuel volumes. It was assumed diesel would be used for all construction vehicles and equipment. The Project is anticipated to consume approximately 78,585.46 gallons of diesel fuel (Caltrans 2022h).

During construction, Project features PF-ENERGY-1 and PF-ENERGY-2, presented at the end of this section, would be implemented to improve energy efficiency of construction equipment. In addition, implementation of PF-AQ-2 and PF-AQ-3, as discussed in Section 3.3.3, would also improve energy efficiency and reduce energy consumption by Project construction.

Construction-related activities would be short-term and would not increase SR 1 transportation capacity or otherwise alter long-term vehicle traffic, and thus do not have the potential to substantially affect energy use. During Project operation, energy consumption would be limited to routine maintenance-related activities that are anticipated to be similar to existing conditions. Therefore, the Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources during construction and operation. The Project would have a less than significant impact.

b) No Impact

The proposed Project scope would not result in changes in traffic volumes, vehicle mix, or any other factor that would cause an increase in energy consumption. The Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with a regional, state, or local plan for renewable energy or energy efficiency. Therefore, the Project would not conflict with the regional/statewide goals on renewable energy or energy efficiency. There would be no impact.

PROJECT FEATURES

Caltrans would incorporate the following standard PFs into the Project to reduce potential impacts to energy:

- **PF-ENERGY-1, Recycle Waste and Materials:** Recycle nonhazardous waste and excess construction materials to reduce disposal, if feasible.
- **PF-ENERGY-2, Solar Energy:** Use solar energy as the energy source for construction equipment, such as, but not limited to, signal boards, if feasible.

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.	Less Than Significant Impact
(ii) Strong seismic ground shaking?	Less Than Significant Impact
(iii) Seismic-related ground failure, including liquefaction?	Less Than Significant Impact
(iv) Landslides?	Less Than Significant 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?	Less Than Significant Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	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?	Less Than Significant Impact

CEQA Significance Determinations for Geology and Soils

A Geologic, Seismic, and Palaeontologic Analysis was prepared by the Caltrans Office of Geotechnical Design – West (Caltrans 2022d). A summary of the findings is presented here.

The Project is located within the central portion of the Coast Ranges Geomorphic Province of California that encompasses SR 1, the primary highway running along the entire Sonoma Coast. The dominant geologic feature of the province is the San Andreas Fault, an approximately 800-mile-long fault zone that generally forms the dividing line between major tectonic plates, with the Pacific Plate situated west of the San Andreas Fault and the North American Plate situated east of the San Andreas Fault. The Project encompasses a lengthy segment of coastal highway along the North Coast section of the dextral strike-slip San Andreas fault zone which is mapped within 2 miles along the entire 58.58-mile Project corridor (Bryant 2002). This major

dextral strike-slip fault zone is displayed within the following U.S. Geological Survey (USGS) 7.5-minute quadrangles: Gualala, Stewarts Point, Plantation, Fort Ross, Arched Rock, Duncans Mills, Bodega Head, and Valley Ford (Bryant 2002).

Due to the length of the Project corridor, descriptions of soils and geology underlying the Project are broken into four Sub-Areas, as described in Chapter 2 (Figure 1-2). Approximate locations of mapped fault traces crossing construction-related activities along SR 1 within each of the four Sub-Area are as follows:

- Sub-Area 1: Between PM 9.4 and 10.1 and at PM 10.2
- Sub-Area 2: Between PM 13.78 and 13.96
- Sub-Area 3: Between PM 30.5 and 31.01 and at PM 31.9
- Sub-Area 4: None

In general, the Coast ranges consist of complexly folded Mesozoic and Cenozoic sedimentary, metamorphic, and volcanic rock. The Mesozoic and Tertiary Complex Terranes found within the Project include Central Belt Franciscan Complex and Quaternary-Tertiary surficial deposits within Sub-Areas 1 and 2; Coastal and Central Belt Franciscan Complex within Sub-Area 3; and Great Valley Complex within Sub Area-4 (Blake 2002a).

Geologic units underlying the Project area consist of surficial deposits, Sonoma Volcanics and Franciscan Complex rocks east of and within the San Andreas fault zone, and rocks west of and within the San Andreas fault zone, and can be further characterized by Sub-Area as follows (Blake 2002a; Blake 2022b; Knudsen 2000):

- Sub-Area 1 (PM 0.00-11.00): From Valley Ford to the coast, underlying geology consists primarily of late Pliocene to late Miocene aged Wilson Grove Formation (Twg) and Cretaceous and Jurassic-age Graywacke and mélange of the Franciscan Complex (KJfs). Twg is known to contain Miocene to Pliocene age fossils and fine-grained quartz-lithic arenite, conglomerate, tuff, and basalt. The Kjfs unit is described as “Massive to distinctly bedded, brown-, orange-, and white-weathering, green to gray, lithic wacke and dark-gray or black siltstone, shale, and slate, grading into mélange consisting of sheared argillite and graywacke matrix enclosing blocks and lenses of sedimentary, metamorphic, and volcanic rocks.”

  As SR 1 heads north along the coast, rocks east of and within San Andreas fault zone primarily consist of Late Cretaceous, Turonian to Campanian-aged Sandstone (Kfss) and Pleistocene aged alluvial and marine terrace deposits (Qt).

- Sub-Areas 2 and 3 (PM 11.00-22.00; PM 22.00-32.00): Following SR 1 north, the prominent underlying geology consists of Quaternary landslide, alluvial, and marine terrace deposits (Qls and Qt). Franciscan Complex Coastal and Central Belt units include Graywacke and mélange (KJfs), and Sandstone (Kfss, TKfs) of Cretaceous to Jurassic age.

- Sub-Area 4 (PM 32.00-58.00): Continuing north along the Sonoma coast approaching the Mendocino County border, dominant underlying geology is predominately underlain by Pleistocene aged alluvial and marine terrace deposits (Qt) and Late Cretaceous and Paleocene aged members of Gualala Formation (Ka and Ks). Additionally, Eocene and Paleocene aged German Rancho Formation (Tg) of the Point Arena terrane is found including fine- to medium-grained distinctly bedded, feldspathic arenite, mudstone, and conglomerate and coarse clasts consist mostly of granitic rocks, amphibolite, schist, gneiss, quartzite, and porphyry volcanics.

Construction-related activities primarily involve installation of incontiguous sections of ground-in centerline rumble strips within the existing highway pavement and would not disturb native soils. Additional construction-related activities would require widening the existing shoulder to 6 feet at 50 spot locations (Table 2-1). Construction is unlikely to disturb native soils at these locations but more likely to encounter non-native backfill. General information on native soils within the Project was obtained from the National Resources Conservation Service (NRCS) web soils survey, and official soil series maps and descriptions are available upon request (NRCS 2022).

a(i), (ii), (iii), (iv), b, and c) Less Than Significant Impact

The Project includes locations of construction-related activities within an Alquist-Priolo Earthquake Zone of Required Investigation (CGS 2022b; CGS 2022c); however, construction-related activities would not add to the hazard.

Additionally, the Project includes locations of construction-related activities located within mapped Tsunami Hazard Areas as designated by the California Geological Survey (CGS 2022a) and historic landslide potential (Manson et al. 2006). Based on potential impacts of construction-related activities, Project components would not further add to the hazard.

Soils may be subject to liquefaction during a strong seismic event; however, Project components would not further add to the hazard.

Implementation of Caltrans construction site, water pollution control, and erosion control BMPs contained in PF-HYD-1 and PF-HYD-2, described in Section 3.3.10, would minimize any soil erosion or loss of topsoil that would result from a seismic event during Project construction.

Based on the Project location, the public would be exposed to potential risk of loss, injury, or death due to hazards from ground shaking, seismic related ground failure, landslides, liquefaction, or other geologic hazards. However, construction-related activities require minimal disturbance with minor excavations that have the potential to result in erosion outside the Caltrans ROW. The Project would not result in increased seismic-related risk or substantial erosion or loss of topsoil, and the impact would be less than significant.

d and e) No Impact

The Project is not mapped on an unstable geologic unit or soil, does not directly or indirectly increase the potential for surface rupture or strong ground shaking, and does not expose the public to increased risk of loss, injury, or death.

Soft soils (loam and clay soils) may be found at depth within the Project work areas, but if native soils are encountered, they are not expected to be expansive or collapsible. No septic tanks or alternative wastewater delivery systems would be constructed or affected by the Project; therefore, no impact would occur.

f) Less Than Significant Impact

The underlying mapped Quaternary marine terraces of the Wilson Grove Formation are known to have the potential for significant fossil occurrence. However, construction-related activities are not expected to disturb paleontological resources, if present. The Project is unlikely to expose fossils or significantly affect sensitive palaeontologic resources and the Project would have less than significant impact.

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 GHG Emissions Analysis was prepared by the Caltrans Office of Environmental Engineering (Caltrans 2022i). A summary of the findings is presented here.

a) Less Than Significant Impact

Construction-generated GHGs include emissions resulting from construction equipment, workers commuting to and from the Project, and traffic delays due to construction of the Project. The emissions would be produced at different rates throughout the Project, depending on the construction-related activities occurring in the three phases of construction. Carbon dioxide (CO_2) is a more important GHG pollutant due to its abundance when compared with other GHGs emitted from construction vehicles and equipment, including methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbon, and black carbon.

Construction-related GHG emissions were calculated using the Construction Emissions Tool 2020 (CAL-CET 2020), version 1.0, developed by Caltrans. During construction, the Project is anticipated to emit approximately 800 tons of CO_2, 0.023 ton of CH_4, and 0.051 ton of N_2O. Total GHG emissions are presented as carbon dioxide equivalent (CO_2e) by multiplying each GHG by their global warming potential (GWP). GWP is a measure of how much energy the emissions of 1 ton of a GHG will absorb over a given period of time, relative to the emissions of 1 ton of CO_2. Total construction emissions of GHG of the Project is 740.27 metric tons of CO_2e (Caltrans 2022i). The Project would not increase SR 1 transportation capacity and therefore would not generate long-term GHG emissions.

The Project would implement Caltrans Standard Specifications such as complying with applicable air pollution control rules, regulations, ordinances, and statutes and

the use of construction site BMPs to minimize short-term GHG emissions from construction activities. Project features PF-AQ-2 and PF-AQ-3 (Section 3.3.3) and PF-ENERGY-1 and PF-ENERGY-2 (Section 3.3.6) would reduce air emissions, energy consumption, and GHG emissions.

Therefore, the Project would not generate GHG emissions that may have a significant impact (i.e., long-term adverse effects) on the environment. The impacts would be less than significant.

b) No Impact

Plans and policies adopted for the purposes of reducing GHG emissions in California include multiple Senate Bills, Assembly Bills, and Executive Orders. These policies establish GHG emissions reduction goals, set low-carbon fuel standards, support rapid commercialization of zero-emission vehicles, fund clean vehicle programs, and require climate adaptation planning. The Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) developed the Plan Bay Area, a Regional Transportation Plan and Sustainable Communities Strategy for the Bay Area, which includes strategies and policies for reducing GHG emissions (ABAG and MTC 2021).

The Project would comply with applicable state and regional GHG reduction policies and implement emission control measures to minimize or reduce GHG emissions. 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, the Project would not conflict with applicable plans, policies, or regulations adopted for the purposes of reducing the emissions of GHGs. There would be no impact.

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?	Less Than Significant Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Less Than Significant Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	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?	Less Than Significant Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR HAZARDS AND HAZARDOUS MATERIALS

Residential structures are located in the vicinity of shoulder widening locations within each of the four Project Sub-Areas. Within Sub-Area 1, the nearest residence is located approximately 60 feet west of SB #02 (Location 6). Within Sub-Area 2, the nearest residence is located approximately 70 feet northeast of SB #11 (Location 18). Within Sub-Area 3, the nearest residence is located approximately 175 feet southwest of SB #23 (Location 34). Within Sub-Area 4, the nearest residence is located approximately 95 feet southwest of SB #43 (Location 59). SR 1 is a public highway, with motorists and bicyclists frequently traveling along the route.

a and b) Less Than Significant Impact

The installation of ground-in centerline rumble strips, wet-night visibility striping, and widening of the shoulders would not involve the routine transport or use of hazardous materials once the Project becomes operational. During construction,

Caltrans' Standard Specifications (PF-HAZ-1, as presented in this section), would be implemented to prevent spills or leaks from construction equipment and from storage of fuels, lubricants, and solvents. All aspects of Project construction associated with removal, storage, transportation, and disposal of hazardous materials would be done in accordance with the appropriate California Health and Safety Code. Handling of hazardous materials would comply with Caltrans Standard Specification 14-11, Hazardous Waste and Contamination, which outlines handling, storage, and disposal of hazardous waste.

The Caltrans Office of Environmental Engineering would assess the extent of ground disturbance involved in the scope of the Project during the design phase. Per the Caltrans Office of Environmental Engineering, a site investigation led by the Hazardous Waste Branch (PF-HAZ-2, as presented in this section) to characterize soil for contaminants, primarily lead, would be required. The results of the site investigation would dictate the special provisions required for proper soil management, disposal, and liability.

The lack of operational impacts from hazardous materials, along with implementation of PF-HAZ-1, would reduce the potential construction impacts caused by the transportation, use, and disposal of hazardous materials or an accidental release of hazardous materials. Therefore, impacts would be less than significant.

c) No Impact

No existing or proposed school is within 0.25 mile of the Project corridor. The nearest existing school is Bodega Bay Elementary School, which is located approximately 1 mile north of Staging Area D and approximately 1.2 miles southeast of NB #07 (Location 13). In addition to the lack of schools located within 0.25 miles of the Project corridor, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste during operation. No impacts to schools would result.

d) No Impact

Screening of environmental regulatory databases, including the State Water Resources Control Board's (SWRCB's) GeoTracker and California Department of Toxic Substances Control's EnviroStor, revealed no known hazardous materials or hazardous waste sites in the immediate vicinity of the Project. A former Leaking Underground Storage Tank Cleanup Site case located approximately 430 feet east of

SB #43 (Location 59) has been closed as of February 2004 (Sonoma County LOP Case #00016247; North Coast Regional Water Quality Control Board (RWQCB) Case # 1TS0576) (SWRCB 2022).

The Project is not located on a hazardous materials site compiled pursuant to Government Code Section 65962.5. The nearest case involving known hazardous materials or hazardous waste release (Sonoma County LOP Case #00016247; North Coast RWQCB Case # 1TS0576) has been cleaned up and the case closed for approximately 18 years. Therefore, no impact would result from the Project.

e) No Impact

The Project corridor is not within an airport land use plan or within 2 miles of a public airport or public use airport. The Sea Ranch Airstrip, located approximately 1.98 miles southeast of SB #42 (Location 58), is a private facility owned by The Sea Ranch Association. The Project is not located within any airport land use plans.

No Project components, including construction equipment, would reach heights or have the potential to pose a safety hazard to airport operations. Further, the Project would not generate excessive noise that would impact people residing or working adjacent to the Project footprints, as discussed in Section 3.3.13. No impact on airports would result from the Project.

f) Less Than Significant Impact

The Project would require the temporary closure of traffic lanes along SR 1. Potential localized delays to traffic along SR 1 would result from the rolling one-lane closures. A Traffic Management Plan (TMP) (PF-TRANS-1), as described in Section 3.3.17, would be prepared prior to the beginning of construction and in consultation with the appropriate agencies, and would include public information and press releases to notify and inform motorists, local businesses, community groups, local entities, emergency services, and local officials of the upcoming rolling one-lane closures. Emergency service response times are not anticipated to change substantially during construction because the TMP would provide priority to emergency and medical vehicles during rolling one-lane closures. The TMP would provide notifications and instructions for rapid response or evacuation in the event of an emergency. In addition, the Project would not conflict with the Sonoma County Emergency Operations Plan (Sonoma County 2022a) or other emergency response or evacuation

plans. The impact on adopted emergency response plans or emergency evacuation plans caused by the Project would be less than significant.

g) Less Than Significant Impact

The Project corridor is within a California Department of Forestry and Fire Protection (CAL FIRE)-designated Moderate, High, and Very High Fire Hazard Severity Zones (State Resource Areas). Several fire agencies serve the Project corridor and are responsible for emergency services and the management of fire operations during emergency response efforts.

The Bodega Bay Fire Protection District is located approximately 450 feet north of Staging Area D. The Valley Ford Volunteer Fire Department provides emergency services to the Valley Ford community, along with surrounding areas, and is located approximately 0.45 mile southwest from NB #04 (Location 5), and approximately 0.35 mile southeast of SB #02 (Location 6). The Bodega Volunteer Fire Department provides emergency services to the Bodega community, along with surrounding areas, and is located approximately 2 miles northeast from SB #03 (Location 9). The North Sonoma Coast Volunteer Firefighter Association provides emergency services to the Sea Ranch community, along with surrounding areas, and has two stations located approximately 2.25 miles southeast from SB #42 (Location 58) and 0.45 miles southeast of SB #43 (Location 59).

During construction, equipment may be used that has the potential to increase the risk of wildfire. However, construction crews would be equipped with standard incipient stage fire suppression equipment such as fire extinguishers and shovels. Professional fire services are stationed nearby and would be contacted immediately in the event of a fire. The Project does not have permanent components that would expose people or structures to risk of loss, injury, or death involving wildland fires. Impacts from the Project that would expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires, would be less than significant.

PROJECT FEATURES

Caltrans would incorporate the following standard PFs into the Project to reduce potential impacts to hazards and hazardous materials:

- **PF-HAZ-1, Caltrans Standard Specifications and Hazardous Waste Regulations:** The current Caltrans Standard Specifications Section 13-4, Job Site

Management, would be implemented to prevent and control spills or leaks from construction equipment and from storage of fuels, paints, cleaners, solvents, and lubricants. Handling and management of hazardous materials would comply with the current Caltrans Standard Specification Section 14-11, Hazardous Waste and Contamination, which outlines handling, storing, and disposing of hazardous waste.

- **PF-HAZ-2, Soil Investigation:** A soil investigation for metals, primarily lead, and other contaminants of concern (i.e., petroleum hydrocarbons and volatile organic compounds) would be completed during the Project's design phase to characterize and profile the soil to be encountered by the construction of the Project. Depending upon the findings of the site investigation, appropriate hazardous waste management special provisions would be prepared and included in the Project specifications.

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;	Less Than Significant Impact
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	Less Than Significant 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	Less Than Significant Impact
(iv) impede or redirect flood flows?	Less Than Significant Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?	Less Than Significant Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No Impact

CEQA Significance Determinations for Hydrology and Water Quality

A Water Quality Study was prepared by the Caltrans Office of Water Quality (Caltrans 2022f) and a Preliminary Drainage Study was prepared by the Office of Hydraulics Engineering (Caltrans 2022e). A summary of the findings is presented here.

The Project is located within the jurisdiction of Region 1 of the North Coast Regional Water Quality Control Board (RWQCB), which is responsible for the implementation and enforcement of state laws and regulations concerning water quality. The Project is within the hydrologic units and watersheds listed in Table 3-2 (Caltrans 2022f).

Table 3-2. Hydrologic Units and Watersheds

Sub-Area	Hydrologic Unit	Watershed
Sub-Area 1	Bodega	Salmon Creek-Frontal Pacific Ocean
Sub-Area 2	Russian River	Lower Russian River
Sub-Area 3	Mendocino Coast	Salmon Creek-Frontal Pacific Ocean
Sub-Area 4	Mendocino Coast	Gualala River

Source: Caltrans 2022f

The receiving water bodies are the Russian River and Gualala River, which are included as beneficial uses as part of the Region 1 RWQCB Basin Plan. These water bodies are not classified as impaired under the 2018 California Clean Water Act Section 303(d) List (SWRCB 2018), nor do they have Total Maximum Daily Loads for any pollutants.

The NIS would be 4.05 acres due to the 50 spot locations of shoulder widening. NIS means the creation of a hard or compacted surface. Since the NIS would be greater than 1 acre, the Project is anticipated to require post-construction storm water treatment measures for new impervious surfaces.

Thirty-two locations (Locations 2 through 3; 5 through 6; and 32 through 61) are located within the Federal Emergency Management Agency (FEMA) Flood Map Zone D, which indicates areas of possible but undetermined flood hazards (Caltrans 2022e). It should be noted that the portion of SR 1 from PM 0.21 to PM 1.38 on north and southbound, identified as Zone D, is known to flood periodically. This portion of SR 1 includes Locations 2 through 3, and Location 5. Eighteen locations are within a Zone X floodplain (Locations 9 through 11, 13, 15, 17 through 20, and 23 through 31). Zone X indicates areas outside of the 0.2 percent annual chance floodplain (500-year).

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, was not considered for the purposes of this IS/ND due to the limited nature of the work included in the Project scope of work, the purpose of which is to install ground-in centerline rumble strip, install wet-night visibility striping, and widen the shoulders at 50 spot locations to provide refuge areas for bicyclists when being passed by motorists on SR 1. Climate change and future

sea-level rise would be considered through the environmental evaluation process of future projects scoped to address these issues on SR 1 within the Project corridor.

a) Less Than Significant Impact

The Project has the potential to contribute stormwater runoff and pollutants to the Russian River and Gualala River during construction-related activities. Implementation of water pollution control BMPs, listed under PF-HYD-1, presented at the end of this section, would reduce temporary impacts to water quality.

The disturbed soil area does exceed 1 acre, and therefore, the Project is subject to the SWRCB Construction General Permit (CGP). To comply with the conditions of the SWRCB CGP and to further reduce impacts associated with water quality and hydrology, a Stormwater Pollution Prevention Plan (SWPPP) would be prepared and implemented prior to the beginning of construction, as described in PF-HYD-2. Potential water quality impacts would be reduced to the maximum extent practicable through proper implementation of the SWPPP and inclusion of the Standard Special Provisions (SSPs) for water pollution control BMPs in the Project. As a result, the Project is not expected to result in long-term impacts to water quality standards or exceed waste discharge requirements; therefore, impacts would be less than significant.

b) No Impact

Water would be used temporarily during construction, potentially at staging area entrances and exits. Water for construction-related activities would be brought in by the contractor and groundwater would not be used. Therefore, the Project would not affect groundwater supplies or groundwater recharge areas and there would be no impact.

c(i), (ii), (iii), and (iv)) Less Than Significant Impact

The Project would not alter the drainage pattern and no drainage work is anticipated (Caltrans 2022e). Implementation of water pollution control BMPs under PF-HYD-1, and of a SWPPP under PF-HYD-2, would minimize erosion, siltation, and the discharge of polluted runoff on- or offsite. The Project would not result in an increase in runoff substantial enough to increase flooding on- or offsite, nor would it impede or redirect flood flows. The existing drainage facilities have the capacity to handle the increase in new impervious areas and the existing drainage patterns at the 50 shoulder

widening spot locations would be maintained. Therefore, the impact would be less than significant.

d) Less Than Significant Impact

The 50 shoulder widening spot locations are not within a FEMA base floodplain or floodway, and as discussed under items a) and c), the Project would not contribute new substantial sources of runoff or pollutants or result in increased flooding. The water surface profile and existing drainage patterns within the Project corridor would be maintained; therefore, no floodplain impacts are anticipated. Some areas of the Project corridor are located within a tsunami hazard area (CGS 2022a); however, in the case of Project inundation, with implementation of PF-HYD-1, the release of substantial pollutants is not anticipated. Therefore, there would be a less than significant impact.

e) No Impact

With implementation of standard water pollution control BMPs, PF-HYD-1, and PF-HYD-2, the Project would not conflict with, or obstruct, implementation of a water quality control plan or suitable groundwater management plan. There would be no impact.

PROJECT FEATURES

Caltrans would incorporate the following standard PFs into the Project to reduce potential impacts to hydrology and water quality:

- **PF-HYD-1, Implementation of Construction Site Best Management Practices:** BMPs would be included in the final Project plans and specifications to comply with the conditions of the Caltrans National Pollutant Discharge Elimination System permit. Construction site BMPs for stormwater may include, but are not limited to, the following:

    - Construction tracking control practices
    - Job site management
    - Sediment control (fiber rolls and silt fencing)
    - Waste management and construction materials pollution control
    - Construction materials stockpile management
    - Dust and wind erosion controls
    - Drainage inlet protection

  - Non-stormwater management
  - Water quality monitoring

- **PF-HYD-2, Stormwater Pollution Prevention Plan and Job Site Management:** A SWPPP would be prepared by the contractor and approved by Caltrans, pursuant to the 2018 Caltrans Standard Specifications Section 13-3, Stormwater Pollution Prevention Plan, and the Caltrans SWPPP Preparation Manual. In addition to the SWPPP, job site management work specifications pursuant to the 2018 Caltrans Standard Specifications Section 13-4, Job Site Management, would be implemented prior to the beginning of construction.

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?	Less Than Significant Impact

CEQA Significance Determinations for Land Use and Planning

The Project would occur along the entire segment of SR 1 in Sonoma County. The approximately 58.58-mile stretch between the Marin County line and the Mendocino County line is referred to herein as the "Project corridor."

a) No Impact

The Project corridor is bordered by agricultural, open space, and rural residential land uses, and is entirely within the Sonoma Coastal Zone boundary. Within Sonoma County, SR 1 also serves as the primary link to a number of small, scattered coastal communities. Due to the scope of work, the proposed Project would not divide any existing established communities within the Project area. There would be no impact.

b) Less Than Significant Impact

SR 1 within the Project corridor is used as a primary access to Sonoma County coastal areas, providing access to public parks, beaches, vista points, visitor-serving facilities, and coastal residential developments (Sonoma County 2001).

Surrounding land uses include the approximately 58 miles of coastline of the Sonoma Coast; State Parks such as Salt Point and Fort Ross Historical Park; and beaches such as Stillwater Cove Regional Park, Gerstle Cove, Ocean Cove, and Timber Cove. Other land uses include rural residential and some visitor-serving commercial and tourist accommodations such as restaurants, hotels and bed and breakfast establishments. No changes in land use due to this Project are anticipated for the Project corridor or the Sonoma Coast in the Project vicinity.

The highway is part of the Pacific Coast Bicycle Route (Sonoma County 2019). Portions of the California Coastal Trail (CCT) run along SR 1 and/or are in the Project corridor (California Coastal Conservancy 2019).

SR 1 would remain open during construction, with implementation of temporary one-way traffic control as needed. Lane closures, existing pull-out areas, and an off-site Caltrans maintenance facility would be used for construction parking, staging, and stockpiling of materials. The Project, during both construction and operation, would have no effect on public access, including the CCT, visual and scenic resources, tourism and visitor-serving facilities, agricultural lands, or cultural, historical, or paleontological resources.

CONSISTENCY WITH STATE, REGIONAL, AND LOCAL PLANS AND PROGRAMS

State Scenic Highway Program

SR 1 in Sonoma County is eligible, but not designated, as a State Scenic Highway. Policy OSRC-3i of the Sonoma County Open Space and Resource Conservation Element of the Sonoma County General Plan (Sonoma County 2016) states that the County should "consider requesting official State Scenic Highway designations for Highways 1 and 37." State designation will require the County to submit an application to Caltrans, along with a Scenic Corridor Protection Plan, including adopted ordinances, policies, and related mechanisms to protect the scenic corridor. If Caltrans approves such a plan, the corridor would become a designated State Scenic Highway.

Sonoma County General Plan 2020

The Project complies with the stated goals of the Sonoma County General Plan (Sonoma County 2016), including goals for transportation and safety. The proposed Project supports the following policies and goals by providing a safe, reliable road for motorized vehicles and multi-modal users:

- Policy OSRC-3i (as explained previously in the *State Scenic Highway Program* subsection)
- Goal OSRC-3: Identify and preserve roadside landscapes that have a high visual quality as they contribute to the living environment of local residents and to the County's tourism economy
- Objective OSRC-3.1: Designate the scenic corridors on Figures OSRC-5a through OSRC-5i along roadways that cross highly scenic areas, provide visual links to major recreation areas, give access to historic areas, or serve as scenic entranceways to cities

- Policy OSRC-3h states: Design public works projects to minimize tree damage and removal along scenic corridors; where trees must be removed, design replanting programs so as to accommodate ultimate planned highway improvements; require re-vegetation following grading and roadway cuts

Coastal Zone Management Act

The proposed Project lies within the California coastal zone and resources within this zone are protected by the Coastal Zone Management Act of 1972. States with an approved coastal management plan are able to review federal permits and activities to determine if they are consistent with the state's management plan.

California has developed a coastal zone management plan and has enacted its own law, the California Coastal Act of 1976 (CCA), to protect the coastal zone. The policies established by the CCA include the protection and expansion of public access and recreation; the protection, enhancement, and restoration of environmentally sensitive areas; the protection of agricultural lands; the protection of scenic beauty; and the protection of property and life from coastal hazards. The CCC is responsible for implementation and oversight under the CCA.

The CCA delegates power to local governments to enact their own local coastal plans (LCPs); in this case, the Sonoma County LCP (Sonoma County 2001). The State-certified LCP is a portion of the Sonoma County General Plan and includes visual resources policies and recommendations under the "Development" section of the CCA. The Sonoma County LCP determines the short- and long-term use of coastal resources in their jurisdiction consistent with the CCA goals.

Under the Sonoma County LCP, the coast is divided by the Russian River into north and south coast sections. The proposed Project resides within both the Sonoma County North and South Coast Planning Areas.

The Project is within the permitting jurisdiction of Sonoma County and would require a local coastal permit for construction. However, development permits issued in accordance with the Sonoma County LCP could be appealable to the CCC.

The CCT, within the Project corridor, runs to the west and parallel to SR 1. In some areas, where steep slopes occur immediately adjacent to SR 1, the CCT is coincident with SR 1 (Sonoma County 2001).

The policies of the CCA (PRC Division 20) give the highest priority to the preservation and protection of Prime Agricultural Land and Timber Lands. On lands not needed for Prime Agricultural or Timber Lands, the next priority goes to public recreation and visitor serving facilities.

Key provisions of the CCA and the Sonoma County LCP that are relevant to the proposed Project are provided in Tables 3-3 and 3-4.

Table 3-3. Key Provisions of the California Coastal Act

Policy Number	Subject of Policy	Coastal Zone Assessment
Section 30210	Maximum public access and recreational opportunities shall be provided.	The proposed Project would improve coastal public access by maintaining the safety and reliability of SR 1.
Section 30211	Development shall not interfere with public access to the sea.	The proposed Project would maintain highway safety and reliability and continue to provide public access to the ocean as described above.
Section 30212	New development projects shall provide for public access to the shoreline and along the coast.	The scope of work included in the proposed Project would not be considered new development.
Section 30252	Public Access	The proposed Project would maintain highway reliability and public access to the ocean as described above. The CCT would not be affected by the proposed Project.
Section 30221	Recreation: Protect suitable oceanfront land for recreational use.	The Project would not impact public access to recreation facilities or oceanfront land.
Section 30231	Biological activity; water quality	Biological resources would be temporarily affected by construction of the proposed Project; however, all impacts would be minimized, and the affected areas would be restored to pre-existing conditions. Project Features and AMMs are incorporated to minimize environmental effects to biological resources, wetlands and water quality.
Section 30233	Diking, filling, dredging of wetlands	The proposed Project has been designed to avoid wetland impacts as much as possible. Specific compensatory requirements at a “no net loss level” would be acquired during the permitting phase.
Section 30235	Construction altering natural shoreline	The proposed Project would not alter the natural shoreline of the Pacific Ocean.

Policy Number	Subject of Policy	Coastal Zone Assessment
Section 30240	Environmentally Sensitive Habitat Areas	ESHAs in the Project BSA include wetlands, riparian areas, and potential habitat for California red-legged frog, northern spotted owl, and marbled murrelet. Project features and AMMs will be implemented to reduce impacts to ESHAs. Restoration of impacted areas will be accomplished through onsite revegetation. Specific compensatory requirements for potential impacts to riparian vegetation, waters of the U.S., waters of the State, and wetlands as defined by the Coastal Act will be determined in coordination with CDFW, USACE, RWQCB, CCC, and Sonoma County during the permitting process.
Section 30241-30242	Agricultural land	No Prime Farmland or Williamson Act parcels exist within the Project study area. The proposed Project would not affect these resources.
Section 30244	Archaeological/ paleontological resources	The proposed Project would not result in an adverse effect to archaeological and historical resources. The Fort Ross Historic State Park would not be affected by the proposed Project. No effects to paleontological resources are anticipated.
Section 30251	Scenic and visual qualities	The proposed Project would not result in adverse effects to scenic vistas/resources in the Project study area. The proposed Project was designed such that scenic and visual qualities of coastal areas would be protected as a resource of public importance. The proposed Project would not alter natural landforms.
Section 30254	Public works facilities	With the proposed Project, SR 1 would remain a two-lane coastal scenic roadway.
Section 30604	Coastal development permits shall include a finding that the development is in conformity with public access and public recreation policies.	The proposed Project would be in conformity with public access and public recreation policies.
Section 30609.5	State lands between the first public roadway and the ocean	The proposed Project would maintain the land devoted to the existing SR 1 highway and its use for public access to the ocean.
Section 30706	Coastal hazards	The purpose of the Project is to maintain continued connectivity for SR 1, increase reliability and safety. The proposed Project would not result in coastal hazards.

Table 3-4. Key Provisions of the Sonoma County Local Coastal Program

Policy Subject	Coastal Zone Assessment
Shoreline Access	The proposed Project would improve coastal public access by increasing highway safety and reliability by minimizing emergency road closures to SR 1 which would interfere with shoreline access to parks, beaches and oceanfront land.
Recreation and Visitor- Serving Facilities	The proposed Project would not interfere with public access to the ocean and the beach. Coastal recreation and visitor-serving facilities would be protected and maintained.
Transportation	The proposed Project would improve coastal public access by increasing highway safety.
Environmentally Sensitive Habitat Areas (ESHAs)	Potential adverse effects to ESHAs have been avoided to the extent practicable through Project Features and AMMs. The proposed Project would avoid ESHAs where practicable and enhance or replace lost habitat to ensure no net loss.
Agriculture	No Prime Farmland or Williamson Act contracts exist within the Project study area. The proposed Project would have no effect on these resources.
Public Works	The proposed Project would not adversely affect public works in the proposed Project study area. Caltrans would submit the Project to Sonoma County and the CCC for review, comment and findings as to its conformity with the LCP during the coastal development permit process.
Coastal Watersheds	The proposed Project would be consistent with Sonoma County's LCP since it would improve highway reliability and safety and would result in no harm to coastal resources.
Visual and Scenic Resources	The proposed Project would not result in adverse effects to scenic vistas/resources. The proposed Project was designed such that scenic and visual qualities of coastal areas would be protected as a resource of public importance. The proposed Project would not alter natural landforms.
Hazards	The purpose of the Project is to improve safety of SR 1. The proposed Project would not result in hazards.
Archaeology	The proposed Project would not result in an adverse effect to archaeological and/or historical resources. The Fort Ross Historic State Park would not be affected by the proposed Project. A Finding of No Historic Properties was determined for this Project under Section 106.
Air Quality	No air quality impacts are anticipated to result from the proposed Project.

Final Sonoma Route 1 Repair Guidelines

Caltrans in coordination with CCC, State Parks, and Sonoma County prepared the *Final Sonoma Route 1 Repair Guidelines* (Guidelines) (Caltrans 2019) to promote stewardship and sustainability of state transportation resources through a shared vision with respect to coastal resources within the Coastal Zone. The Guidelines are not a policy plan but instead provide a framework to enable more timely repairs that are not only functional but are also consistent with the landscape, uses, and regulatory and land management policies associated with SR 1.

The key provisions of the Guidelines relevant to the Project are listed in Table 3-5.

Table 3-5. Key Provisions of the Final Sonoma Route 1 Repair Guidelines

Design Guideline	SR 1 Repair Recommendation and Assessment
Parking, Pullouts, Unpaved Shoulders, and Turnouts	No net loss of parking, pullouts, or turnouts. Non-pavement treatments should be used where feasible. Other roadway uses or development of the area beyond the shoulder should be minimized and fit in with the natural environment. The proposed Project would have no effect on existing parking. The Project would affect existing pullouts and turnouts by adding to them in the form of bicycle refuge areas.
Drainage Features	Drainage pipes should be hidden from view where feasible. Pipes that cannot be hidden should be colored with earth-tone coating to conceal them. Concrete drainage features should be colored to match adjacent earth tones. Drainage rock used as dissipaters should be colored earth tone to reduce visual impacts. Inlets should be sited outside of where bicyclists are most likely to ride, if feasible, and shall use bicycle-proof grates. The Project would meet drainage feature recommendations, where feasible.
Ditches	Ditches should be designed to blend into the surrounding landscape. Concrete and metal facilities should be treated to match the surrounding terrain. Where appropriate, drainage ditches should be designed in conjunction with the shoulder to reduce the amount of pavement and widening needed, following the guidelines in Chapter 830 of the Highway Design Manual. The Project scope does not include ditches.
Bicycles and Pedestrians	Pedestrians and bicyclists should be accommodated in all projects. Dedicated pedestrian facilities should be incorporated into projects on a case-by-case basis where there is an identified need and in coordination with local stakeholders. The Project would affect existing pullouts and turnouts by adding to them in the form of bicycle refuge areas.

The Project would be designed to be consistent with the Guidelines. Where the Project components occur coincident with or along the existing CCT, the Project would accommodate pedestrian and bicycle users during construction. No permanent impacts to the CCT would occur as a result of the Project.

The Project would be consistent with the State Scenic Highway Program, Sonoma County General Plan 2020, Sonoma County Local Coastal Program, the Coastal Zone Management Act, and the Guidelines. Therefore, there would be less than significant impacts.

3.3.12 Mineral Resources

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 and b) No Impact

The California Geological Survey (CGS) designates the four Sub-Areas of the Project as occurring within Mineral Resource Zone (MRZ) categories as follows (Miller and Busch 2013):

- Sub-Area 1 (PM 0.00-11.00): MRZ-1 and MRZ-3
- Sub-Area 2 (PM 11.00-22.00): MRZ-1 and MRZ-3
- Sub-Area 3 (PM 22.00-32.00): MRZ-1, MRZ-3 and MRZ-4
- Sub-Area 4 ((PM 32.00-58.00): MRZ-1 and MRZ-3

CGS assigns the following designations for the MRZs:

- MRZ-1: "Areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources"
- MRZ-3: "Areas containing mineral occurrences of undetermined mineral resource significance"
- MRZ-4: "Areas where available information is inadequate for assignment to any other MRZ category"

The four Sub-Areas within the Project occur within the MRZ categories MRZ-1, MRZ-3, and MRZ-4 (Miller and Busch 2013). Even though sections of work fall within the mapped Quaternary marine terraces of the Wilson Grove Formation known to have the potential for significant fossil occurrence, construction-related activities are limited to previously disturbed areas (centerline of existing highway and shoulder expansion); are not expected to disturb mineral resources, if present; and would not result in the loss of availability of a known mineral resource or locally important mineral resource recovery site. Therefore, no impact would occur.

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?	No Impact
c) For a Project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?	Less Than Significant Impact

CEQA Significance Determinations for Noise

A Construction Noise Analysis was completed by Caltrans Office of Environmental Engineering, Noise (Caltrans 2022b). A summary of the findings is presented here.

a) Less Than Significant Impact

There are sensitive receptors in areas where centerline rumble strips are proposed. The Project would potentially expose noise-sensitive receptors to a short-term increase in noise levels during construction, but the increase would be temporary. The sensitive receptors within 25 feet from the construction-related activities would potentially perceive noise greater than 86 A-weighted decibels (dBA) between 9:00 p.m. to 6:00 a.m. Noise associated with construction is controlled by Caltrans Standard Specification Section 14-8.02, Noise Control, which limits maximum hourly noise levels (L_{max}) to 86 dBA at 50 feet from a project from 9:00 p.m. to 6:00 a.m.

Because construction noise levels may exceed 86 dBA during nighttime work (if needed in those locations), AMM-NOISE-1, as presented in this section, includes measures to reduce construction noise and conduct public outreach to nearby noise-sensitive receptors. Therefore, a less than significant impact would occur.

The Project would not change SR 1 transportation capacity; therefore, a permanent increase in traffic noise levels due to increase in traffic volumes would not occur.

Following Project completion, noise levels may increase at adjacent receptors if vehicles cross the centerline. However, the noise caused by the rumble strips would

not be continuous or frequent. Therefore, the increase in noise due to the rumble strips would be a less than significant impact.

b) No Impact

Construction of the Project would not require vibratory or impact pile driving. There would be no impact from excessive groundborne vibration**.**

c) Less Than Significant Impact

The Sea Ranch Airstrip is a private airstrip located approximately 1.98 miles southeast of SB #42 (Location 58). The Project would not generate excessive noise that would permanently impact or expose people residing or working within 2 miles of the Project footprint to excessive noise levels. The lack of permanent operational impacts from noise, along with compliance with Caltrans' Standard Specifications, would result in less than significant noise impacts.

AVOIDANCE AND MINIMIZATION MEASURES

Caltrans would incorporate the following AMM into the Project to avoid and/or minimize potential impacts to noise:

- **AMM-NOISE-1, Construction Noise Levels:** The following measures would be implemented to reduce noise levels during construction where feasible:
    - Any operation exceeding 86 dBA would not be allowed at nighttime from 9:00 p.m. to 6 a.m.
    - Public outreach would be required throughout the Project to update residents, businesses, and others regarding upcoming construction-related activities and Project schedule.
    - Schedule noisy operations within the same time frame where feasible. The total noise level would not be significantly greater than the level produced if operations are performed separately.
    - Avoid unnecessary idling of internal combustion engines within 100 feet of sensitive receptors.
    - Locate all stationary noise-generating construction equipment as far as practical from noise-sensitive receptors or provide baffled housing or sound

aprons for equipment when sensitive receptors adjoin or are near a Project construction area.

- Equip all internal combustion engine driven equipment with manufacturer recommended intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Utilize “quiet” air compressors and other “quiet” equipment where such technology exists.
- No construction equipment would be delivered and dropped off before 6:00 a.m.
- Maintain all internal combustion engines properly to minimize noise generation.

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 and b) No Impact

The Project would not induce population growth because it does not increase the capacity of SR 1, remove barriers to future growth, or increase population or housing growth (or demand for new housing, utilities, or public services). The Project would not induce substantial population growth, displace housing, or displace people; therefore, 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 Project would not result in the substantial alteration of government facilities in the Project corridor, such as fire and police protection, schools, parks, or other public facilities, nor trigger the need for new government facilities or alter the demand for public services. A TMP would be prepared (PF-TRANS-1 as presented in Section 3.3.17). Therefore, police, fire, and medical services would not be adversely affected by the proposed Project. There would be no impact.

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

The Project corridor crosses and provides access to 10 public parks and beaches including Sonoma Coast State Park, Fort Ross State Historic Park, Stillwater Cove Regional Park, Russian Gulch State Beach, and Salt Point State Park. In addition, the Project corridor includes several natural reserves:

- Jenner Headlands Reserve
- Kruse Rhododendron State Natural Reserve
- Rocky Point – Sonoma Land Trust
- Kashia Coastal Reserve
- Del Mar Landing Ecological Reserve

The Project corridor also includes the following California Marine Protected Areas:

- Russian River State Marine Recreational Management Area
- Gerstle Cove State Marine Reserve
- Salt Point State Marine Conservation Area
- Stewarts Point State Marine Reserve
- Stewarts Point State Marine Conservation Area
- Del Mar Landing State Marine Reserve

a and b) <u>No Impact</u>

The Project would not directly or indirectly increase use of existing recreational facilities such that substantial deterioration of the facilities would occur. The Project would not require the construction of additional recreational facilities. There would be no impacts.

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?	Less Than Significant Impact
b) Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	Less Than Significant Impact
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	No Impact
d) Result in inadequate emergency access?	Less Than Significant Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR TRANSPORTATION

SR 1 is a two-lane, rural conventional highway with 10-foot to 12-foot-wide travel lanes, with existing 0--foot to 2--foot-wide shoulders at most locations. The Project would install centerline rumble strip, install wet-night visibility striping, and widen the shoulders to 6 feet at 50 spot locations along SR 1 within the Project corridor. The Project would not increase SR 1 transportation capacity, nor would it permanently alter the circulation system, and would have no temporary or permanent impact on vehicle miles traveled (VMT).

a) Less Than Significant Impact

The Project would conflict with the *District 4 Pedestrian Plan for the Bay Area* (Pedestrian Plan) (Caltrans 2022a), which analyzed existing pedestrian travel and potential future improvements on SR 1. The Pedestrian Plan identified the entire length of SR 1 within the Project limits as Tier 3 priorities, which are the lowest intensity of need. The Project would not improve pedestrian facilities within the Project corridor and therefore would not address needs identified in the Pedestrian Plan.

The Project would also conflict with Director's Policy (DP) 37, Complete Streets (Caltrans 2021). DP 37 requires that all Caltrans transportation projects provide "complete streets," which is defined as comfortable, convenient, and connected complete streets facilities for people walking, biking, and taking transit or passenger rail unless an exception is documented and approved. The Project, while providing refuge areas for bicyclists, would not provide facilities for people walking or taking

transit or passenger rail, and justification would be documented with final approval by the Caltrans District 4 Director.

The Project would not conflict with other programs, plan, ordinances, or policies regarding the circulation system, public transit, and bicycle or pedestrian facilities. As stated in Section 1.2, the purpose of the Project is to provide safe traffic operations on SR 1 and to also provide refuge areas for bicyclists to use when being passed by motorists. The Project would implement AMM-TRANS-2, presented at the end of this section, to evaluate bicycle-related signage in the areas where bicyclists may be re-entering the lane from the widened shoulder.

To protect construction workers and the traveling public, traffic control would be in place while construction-related activities are underway. A detailed TMP (PF-TRANS-1, presented at the end of this section) would be developed prior to the beginning of construction to aid in coordinating and providing further safety measures for those accessing the Project corridor during construction. In addition, the Project would implement AMM-TRANS-1, presented at the end of this section, to ensure Caltrans coordinates with Sonoma County Regional Parks prior to construction. This would allow Caltrans and Sonoma County Regional Parks to coordinate construction activities if overlap exists between the Project and the North Coast Trails Project efforts. Therefore, impacts would be less than significant.

b) Less Than Significant Impact

The Project would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). The Project would have less than significant impacts on VMT and transportation during construction because of temporary traffic control, including rolling one-lane closures. The Project would have no permanent impact on VMT and would cause no permanent impacts on transportation. The impact would be less than significant.

c) No Impact

The Project would not increase hazards because of a geometric design feature. The Project does not include design features or Project components that would substantially increase hazards. There would be no impact.

d) Less Than Significant Impact

The Project would not result in inadequate emergency access. With implementation of PF-TRANS-1, medical and emergency vehicles would be able to continue to use SR 1 for fire, medical, emergency, and law enforcement purposes. The Project has the potential to cause short-term, localized traffic congestion and delays resulting from rolling one-lane closures during construction. Detours are not anticipated to be required during construction. Therefore, impacts would be less than significant.

PROJECT FEATURES

Caltrans would incorporate the following PF to reduce potential impacts to transportation:

- **PF-TRANS-1, Transportation Management Plan:** A TMP would be prepared by Caltrans prior to the beginning of construction and in consultation with the appropriate agencies to aid in coordinating and providing further safety measures for those accessing the Project corridor during construction. The TMP would identify traffic delays and alternative routes for emergency and medical vehicles associated with essential services, thereby avoiding or minimizing short-term, localized traffic congestions and delays. Notifications and instructions for rapid response or evacuation in the event of an emergency would be provided.

AVOIDANCE AND MINIMIZATION MEASURES

Caltrans would incorporate the following AMMs to avoid and/or minimize potential impacts to transportation:

- **AMM-TRANS-1, Coordinate Construction Schedules:** Caltrans will contact Sonoma County Regional Parks as construction of the Project approaches, to ensure Sonoma County Regional Parks can review and provide input on the Caltrans improvement plans during the design phase, and to ensure Sonoma County Regional Parks and Caltrans can coordinate construction activities if overlap exists between the Project and Sonoma County Regional Parks efforts related to the North Coast Trails Project.
- **AMM-TRANS-2, Bicycle-Related Signage:** During the design phase, Caltrans will evaluate bicycle-related signage in areas where the shoulder tapers and narrows again where bicyclists may be re-entering the lane from the widened shoulder.

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.	Less Than Significant Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR TRIBAL CULTURAL RESOURCES

a) No Impact

Under AB 52 and as part of Section 106 of the National Historic Preservation Act process, Caltrans' Office of Cultural Resource Studies initiated consultation with the identified Tribes and individuals from the list provided by the NAHC. THPO Macias noted that there are four sites of importance to the Kashia Pomo located along the project corridor within the APE and one of these sites is eligible for listing on the California Register of Historical Resources; however, none of the four sites are located in the ADI and they will not be impacted by the Project.

b) Less Than Significant Impact

One site was previously determined eligible for listing on the NRHP and that determination was concurred with by the California State Historic Preservation Officer on February 13, 2002. Three additional sites are considered eligible for inclusion in the NRHP for the purposes of the Project only. Implementation of PF-CULT-1 as discussed in Section 3.3.5 would reduce the impact to less than significant.

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

Utility providers along the Project corridor include PG&E, AT&T, Frontier Communications, Sea Ranch Fiber Optic Network, Sea Ranch Water District, Russian River Utility, and Timber Cove Water. There are existing overhead PG&E and AT&T utility lines that are anticipated to be relocated at some of the shoulder widening locations. There is also an existing optical fiber conduit running under portions of SR 1, close to the centerline of the highway within the Project limits that is anticipated to be protected in place. In addition, it is anticipated that water lines are also present, and would be protected in place. However, the need for potholing and relocation of existing utilities, if any, would be ascertained during the Project's design phase, and following the completion of the verification process. Utility relocations would occur prior to the beginning of construction and in consultation with the utility providers.

a) Less Than Significant Impact

The Project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electrical power, or natural gas facilities. The Project is not anticipated to require utility relocations for gas, water, and sewer systems. However, the Project is anticipated to require the

relocation of telephone and electric power poles that are within some of the shoulder widening locations. Utility verification is anticipated to be required for the Project and would occur during the design phase to confirm the need for utility relocations, and if needed, utility relocations would occur prior to the beginning of construction and in consultation with utility providers (AMM-UTIL-1, presented at the end of this section). Therefore, impacts to utilities would be less than significant.

b, c, d, and e) No Impact

The Project would not require the services of a landfill where the Project would impact its capacity. The Project would not exceed wastewater treatment requirements. The Project would not require water supplies to serve the Project from existing entitlements or where the Project would impact new or expanded entitlements. The Project would not require the services of a wastewater treatment provider where the Project would impact the provider's capacity. All construction-related waste would be properly disposed of, or recycled, at an approved facility in compliance with both Caltrans Standard Specification 14-11, Hazardous Waste and Contamination (PF-HAZ-1 [Section 3.3.9]), and the requirements of the facility to which the construction-related waste is hauled. Construction-related activities would comply with all federal, state, and local management and reduction statutes and regulations related to solid waste. Therefore, there would be no impact.

AVOIDANCE AND/OR MINIMIZATION MEASURES

Caltrans would incorporate the following AMM to avoid and/or minimize potential impacts to utilities and service systems:

AMM-UTIL-1, Utility Notifications: During design phase, Caltrans would coordinate with all affected utility companies regarding the construction schedule for the Project so that relocations can be conducted by each utility company as necessary prior to the start of construction.

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?	Less Than Significant Impact

CEQA Significance Determinations for Wildfire

The four Sub-Areas of the Project corridor are all located within Sonoma County and are within a State Responsibility Area, each with varying types of fire hazard severity according to CAL FIRE (Figure 3-1). The shoulder widening locations and staging areas are located within either a Moderate, High, or Very High Fire Hazard Severity Zone (Table 3-6 and Figure 3-1).

Table 3-6. Fire Hazard Severity Zones

Shoulder Widening Location and/or Staging Area	Project Sub-Area	Fire Hazard Severity Zone
NB #02 (Location 2)	Sub-Area 1	Moderate
SB #01 (Location 3)	Sub-Area 1	Moderate
Staging Area A	Sub-Area 1	Moderate
NB #04 (Location 5)	Sub-Area 1	Moderate
SB #02 (Location 6)	Sub-Area 1	Moderate
Staging Area B	Sub-Area 1	Moderate
SB #03 (Location 9)	Sub-Area 1	Moderate
SB #04 (Location 10)	Sub-Area 1	Moderate
Staging Area C	Sub-Area 1	Moderate
SB #05 (Location 11)	Sub-Area 1	Moderate
Staging Area D	Sub-Area 1	Moderate

Shoulder Widening Location and/or Staging Area	Project Sub-Area	Fire Hazard Severity Zone
NB #07 (Location 13)	Sub-Area 2	Moderate
Staging Area E	Sub-Area 2	Moderate
SB #08 (Location 15)	Sub-Area 2	Moderate
SB #10 (Location 17)	Sub-Area 2	Moderate
SB #11 (Location 18)	Sub-Area 2	Moderate
SB #12 (Location 19)	Sub-Area 2	Moderate
SB #13 (Location 20)	Sub-Area 2	Moderate
Staging Area F	Sub-Area 2	Moderate
SB #15 (Location 23)	Sub-Area 2	Moderate and High
SB #16 (Location 24)	Sub-Area 2	Moderate and High
Staging Area G	Sub-Area 3	Moderate
SB #17 (Location 25)	Sub-Area 3	Moderate
SB #18 (Location 26)	Sub-Area 3	Moderate
Staging Area H	Sub-Area 3	Moderate
SB #19 (Location 27)	Sub-Area 3	Moderate
NB #09 (Location 28)	Sub-Area 3	Moderate
NB #10 (Location 29)	Sub-Area 3	Moderate
SB #20 (Location 30)	Sub-Area 3	Moderate
NB #11 (Location 31)	Sub-Area 3	Moderate
SB #21 (Location 32)	Sub-Area 3	High
Staging Area I	Sub-Area 3	High
SB #22 (Location 33)	Sub-Area 3	High
SB #23 (Location 34)	Sub-Area 3	High
SB #24 (Location 35)	Sub-Area 3	Moderate
SB #25 (Location 36)	Sub-Area 4	Moderate
SB #26 (Location 37)	Sub-Area 4	Moderate
NB #12 (Location 38)	Sub-Area 4	Moderate
SB #28 (Location 41)	Sub-Area 4	Moderate
SB #29 (Location 42)	Sub-Area 4	Moderate
SB #30 (Location 43)	Sub-Area 4	Moderate
NB #14 (Location 44)	Sub-Area 4	Moderate
SB #31 (Location 45)	Sub-Area 4	High
NB #15 (Location 46)	Sub-Area 4	High
SB #32 (Location 47)	Sub-Area 4	Very High
SB #33 (Location 48)	Sub-Area 4	High and Very High
Staging Area J	Sub-Area 4	High

Shoulder Widening Location and/or Staging Area	Project Sub-Area	Fire Hazard Severity Zone
SB #34 (Location 49)	Sub-Area 4	High
SB #35 (Location 50)	Sub-Area 4	High and Very High
NB #16 (Location 51)	Sub-Area 4	Very High
SB #36 (Location 52)	Sub-Area 4	Very High
SB #37 (Location 53)	Sub-Area 4	High
Staging Area K	Sub-Area 4	High
SB #38 (Location 54)	Sub-Area 4	High
SB #39 (Location 55)	Sub-Area 4	High
SB #40 (Location 56)	Sub-Area 4	High and Very High
SB #41 (Location 57)	Sub-Area 4	High
SB #42 (Location 58)	Sub-Area 4	Moderate and High
SB #43 (Location 59)	Sub-Area 4	High
Staging Area L	Sub-Area 4	High
NB #17 (Location 60)	Sub-Area 4	High
SB #44 (Location 61)	Sub-Area 4	High

Notes:

NB = northbound
SB = southbound

The County of Sonoma Emergency Readiness, Response and Recovery, along with incorporated cities, have established standardized evacuation zones that will remain consistent for multiple incidents (Sonoma County 2022b). The "Evacuation" annex to the Sonoma County Operational Area Emergency Operations Plan (Sonoma County 2021) notes that evacuation routes would be selected by law enforcement officials and approved at the time of the evacuation decision. Evacuation routes may include interstate, state and surface roads (like SR 1) and would be chosen based on the relative safety of highway infrastructure and current traffic conditions (Sonoma County 2021). The Sonoma County Fire District and volunteer fire companies operating through the County of Sonoma Emergency Readiness Response and Recovery, as well as CAL FIRE, provide fire suppression, rescue, and emergency services within the Project corridor (Sonoma County 2022a).

a and d) Less Than Significant Impact

A TMP (PF-TRANS-1), as discussed in Section 3.3.17, would be prepared prior to the beginning of construction and in consultation with the appropriate agencies to avoid or minimize potential impacts to transportation, and to aid in coordinating and providing safety measures for those accessing SR 1 within the Project limits during

construction. Such agencies can include the Sonoma County Transportation Authority (SCTA), SCTA Paratransit Services, Sonoma County School Districts, the Sonoma County Office of Education, public transportation providers from neighboring jurisdictions including cities and counties, Golden Gate Highway and Transportation District, and/or private sector transportation providers (Sonoma County 2021).

The TMP would include public information and press releases to notify and inform motorists, local businesses, community groups, local entities, emergency services, and local officials of upcoming closures and detours (if needed). Additionally, the TMP would include various elements such as portable message signs, ground-mounted signs, and a Construction Zone Enhanced Enforcement Program (COZEEP) to minimize delays and alleviate inconveniences to the traveling public. Emergency and medical vehicles associated with essential public services would be prioritized, and notifications and instructions for rapid response or evacuation in the event of an emergency would be provided to them. The Project would require rolling one-lane closures to install the ground-in centerline rumble strips and widen the shoulders.

In the event of a wildfire, the TMP would be implemented. The Project would not exacerbate wildfire risks or expose people or structures to significant risks. Therefore, the Project would have a less than significant impact.

b and c) <u>No Impact</u>

The Project would be entirely within Caltrans ROW and therefore would not expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, nor would it require the installation of associated infrastructure that would exacerbate fire 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)?	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Less Than Significant Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR MANDATORY FINDINGS OF SIGNIFICANCE

a) Less Than Significant Impact

As determined in Section 3.3.4, Biological Resources, 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 generate temporary and permanent impacts to both terrestrial ESHAs and aquatic ESHAs. AMMs will be implemented to avoid and/or minimize impacts on terrestrial and aquatic features. Coordination with the appropriate regulatory agencies will also be conducted in the later stages of the Project. During construction, ground-disturbing activities are anticipated; PFs and AMMs would reduce, avoid and/or minimize impacts to special-status species.

Thirty-six archaeological sites were identified within the APE, it was determined that all construction-related activities have been placed outside the boundaries of sites with known cultural resources. However, certain Project locations were adjacent to known resources; therefore, ESAs will be established to protect these resources in addition to monitoring the ESAs to ensure compliance. Consultation with the Kashia Pomo and Graton Rancheria is ongoing throughout the life of the Project.

The Project would also result in other temporary, minor, and construction-related impacts. PFs, and AMMs (Appendix C), would reduce, avoid, and/or minimize impacts to less than significant levels.

b) No Impact

A review of projects in the vicinity of the Project determined that no past, present, or future projects would pose a cumulative effect together with implementation of the Project. For biological resources, no cumulative impacts are anticipated due to the implementation of the PFs, and AMMs as summarized in Appendix C.

With respect to population and housing, the Project would not be growth inducing. With respect to land use and planning, the Project is generally consistent with State Scenic Highway Program, Sonoma County General Plan 2020, Sonoma County Local Coastal Program, the Coastal Zone Management Act, and the Guidelines. With these considerations, the Project would not have cumulative impacts, therefore there would be no impact.

c) Less Than Significant Impact

The Project would have no impact on agriculture and forest resources, mineral resources, population and housing, public services, and recreation. The Project would potentially affect aesthetics, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, transportation, tribal cultural resources, utilities and service systems, and wildfire. However, with implementation of PFs, and AMMs these potential impacts would be reduced, avoided, and/or minimized to a less than significant level. Construction-related activities would temporarily increase criteria air pollutant emissions, ambient noise levels, and emergency response times and the Project would incorporate PFs and AMMs to reduce, avoid, or minimize potentially adverse effects to humans. Therefore, the Project would not have a substantial direct or indirect impact on the human environment. Impacts would be less than significant.

Chapter 4 Community Outreach and Consultation and Coordination with Public Agencies

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

4.1 Community Outreach

This IS/ND, maps, and Project information are available to download at the District 4 Environmental Documents by County website (https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs). In addition, hard copies of the IS/ND were made available at the Sonoma County Regional Library, the Guerneville Regional Library, and the Cotati Regional Library. Flyers were sent to residents' mailboxes along the corridor, notifying the public of availability of the IS/ND and ways to submit formal comments on the IS/ND. This same information was also published in a newspaper advertisement in the Marin Independent Journal, and the Project was presented at the Sonoma County Coastal Municipal Advisory Council meeting on January 19, 2023, and at the Sonoma County Bicycle Coalition meeting on January 24, 2023.

4.2 Consultation and Coordination with Public Agencies

Consultation with agencies occurred during the PA&ED phase. A list of coordination activities and contacts is provided in Table 4-1.

Table 4-1. Agency Coodination Meetings and Contacts

Organization(s)	Date	Topic
Native American Heritage Commission (NAHC)	June 22, 2021	Caltrans contacted the NAHC requesting a review of the Sacred Lands File (SLF). The results of the SLF were positive and a list of Native American contacts with potential interest or information regarding the APE was provided.
USFWS	June 13, 2022	Caltrans biologist emailed the Caltrans District 4 Liaison/USFWS to request technical assistance for the Project.
USFWS	September 13, 2022	Jacobs biologist shared the draft figures with Mr. Cleckler/USFWS.

Organization(s)	Date	Topic
USFWS	September 20, 2022	Jacobs biologists received an email from the Caltrans District 4 Liaison /USFWS explaining that it is reasonable to assume SNPL could be located in the range of the proposed Project's disturbance area.
Local Native American Contacts provided by the NAHC	September 21, 2021	Caltrans sent consultation initiation letters, under AB 52 and Section 106 of the National Historic Preservation Act, regarding the Project, to all NAHC contacts that were provided.
USFWS	November 14 and 16, 2022	Jacobs biologist and the Caltrans District 4 Liaison /USFWS corresponded via email on where the suitable habitat was for NSO in relation to the Project and Jacobs wanted to get technical assistance on potential auditory impacts to NSO. Mr. Cleckler responded with some questions that the Jacobs biologist answered.
California Coastal Commission and Sonoma County	December 19, 2022	Caltrans Senior Environmental Planner and Jacobs Environmental Planner held an informal early coordination call with California Coastal Commission and Sonoma County to introduce the Project.

Chapter 5 List of Preparers and Reviewers

The primary people responsible for preparing and reviewing this IS/ND are summarized in Table 5-1.

Table 5-1. List of Preparers and Reviewers

Organization	Name	Role
Caltrans	Maxwell Lammert	Office Chief (Acting), Office of Environmental Analysis
Caltrans	Melanie Brent	Deputy District Director, Environmental Planning and Engineering
Caltrans	Lawrence Loi	Regional Project Manager (Acting), Sonoma County
Caltrans	Gezahegn Tizazu	Regional Project Manager, Sonoma County
Caltrans	Arnica MacCarthy	Senior Environmental Planner, Office of Environmental Analysis
Caltrans	Chris Pincetich	Branch Chief (Acting), Office of Biological Sciences and Permits
Caltrans	Robert Blizard	Branch Chief, Office of Environmental Studies and Permits
Caltrans	Lindsay Vivian	Office Chief (Acting), Office of Biological Sciences and Permits
Caltrans	Grant Samaniego	Environmental Scientist, Office of Biological Sciences and Permits
Caltrans	Alicia Sanhueza	Branch Chief (Acting), Office of Cultural Resource Studies
Caltrans	Ingrid Pena	Associate Environmental Planner (Architectural History), Office of Cultural Resource Studies
Caltrans	Frances Schierenbeck	Senior Environmental Planner (Architectural History), Office of Cultural Resource Studies
Caltrans	Althea Asaro	Branch Chief (Acting), Office of Cultural Resource Studies
Caltrans	Shilpa Mareddy	Branch Chief, Office of Environmental Engineering
Caltrans	Radhika Mothkuri	Transportation Engineer, Office of Environmental Engineering
Caltrans	Chris Wilson	District Branch Chief, Office of Environmental Engineering
Caltrans	Chris Risden	Branch Chief, Office of Geotechnical Design – West
Caltrans	Kathleen Reilly	District Branch Chief, Office of Hydraulic Engineering
Caltrans	Tom Jiang	Hydraulic Engineer, Office of Hydraulic Engineering
Caltrans	Joaquin Pedrin	Branch Chief, Office of Landscape Architecture – North
Caltrans	Chris Else	Landscape Architecture Associate, Office of Landscape Architecture

Organization	Name	Role
Caltrans	Diana Pink	Landscape Architecture Associate, Office of Landscape Architecture
Caltrans	Mojgan Osooli	Branch Chief, Office of Water Quality
Caltrans	Brian Rowley	Branch Chief, Office of Water Quality
Caltrans	Melvin Dumlao	Water Quality Engineer, Office of Water Quality
Caltrans	Jim Murphy	Right of Way Agent, Office of Right of Way Acquisitions & Project Management Services
Caltrans	Yetendra Jangid	Project Manager, Project Management North
Caltrans	Jaime Gutierrez	Senior Transportation Engineer, Office of Design Support
Caltrans	Luis Hernandez	Project Engineer, Office of Design Support
Caltrans	Joy Cheung	Construction Manager, Office of North Bay Construction
Jacobs	Rachel Cotroneo	Senior Biologist
Jacobs	Stephanie Owens	Biologist
Jacobs	Patricia Ambacher	Senior Cultural Resources Specialist
Jacobs	Hong Zhuang	Senior Environmental Engineer
Jacobs	Yassaman Sarvian	Senior Environmental Planner
Jacobs	Joe Aguirre	Environmental Planner
Jacobs	Erik Lauritzen	Environmental Planner
Jacobs	Joza Burnam	Senior Environmental Planner
Jacobs	Will Packard	Environmental Planner
Jacobs	Sam Schoevaars	Environmental Planner
Jacobs	Hannah Minderhout	Environmental Planner
Jacobs	Tara Zuroweste	Environmental Planner
Jacobs	Loretta Meyer	Senior Environmental Planner
Jacobs	Chris Archer	Geospatial Professional
Jacobs	Clarice Ericsson	Publications Technician
Jacobs	Bryan Bell	Senior Technical Editor

Chapter 6 Distribution List

The IS/ND was circulated by transmittal letter via email on January 20, 2023, to the agencies and elected officials listed in the following sections.

6.1 Agencies

Bay Area Air Quality Management District
375 Beale Street, Suite 660
San Francisco, CA 94105

California Coastal Commission
455 Market Street, Suite 300
San Francisco, CA 94105

California Department of Fish and Wildlife
Bay Delta Region, Region 3
2825 Cordelia Road, Suite 100
Fairfield, CA 94534

California Department of Forestry and Fire Protection (LNU Unit)
1199 Big Tree Road
St. Helena, CA 94574

California Department of Parks and Recreation
Sonoma – Mendocino Coast District
P.O. Box 123
Duncan Mills, CA 95430

California Transportation Commission
1120 N Street MS 52
Sacramento, CA 95814

Governor's Office of Planning and Research
State Clearing House Unit
1400 Tenth Street
Sacramento, CA 95814

North Coast Regional Water Quality Control Board
5550 Skylane Boulevard, Suite A

Santa Rosa, CA 95403

Sonoma County Planning Division
2550 Ventura Avenue
Santa Rosa, CA 95403

Sonoma County Sheriff's Office
2796 Ventura Avenue
Santa Rosa, CA 95403

Sonoma County Transportation Authority
411 King Street
Santa Rosa, CA 95404

State Water Resources Control Board, Division of Water Quality
P.O. Box 100
Sacramento, CA 95812

U.S. Fish and Wildlife Service
2800 Cottage Way, Suite W-2605
Sacramento, CA 95825

U.S. Army Corps of Engineers, San Francisco District
450 Golden Gate Avenue, 4th Floor
San Francisco, CA 94102

6.2 Elected Officials

The Honorable Dianne Feinstein
United States Senate
One Post Street, Suite 2450
San Francisco, CA 94104

The Honorable Alex Padilla
United States Senate
333 Bush Street, Suite 3225
San Francisco, CA 94104

The Honorable Jared Huffman
United States Congress (CA-2)

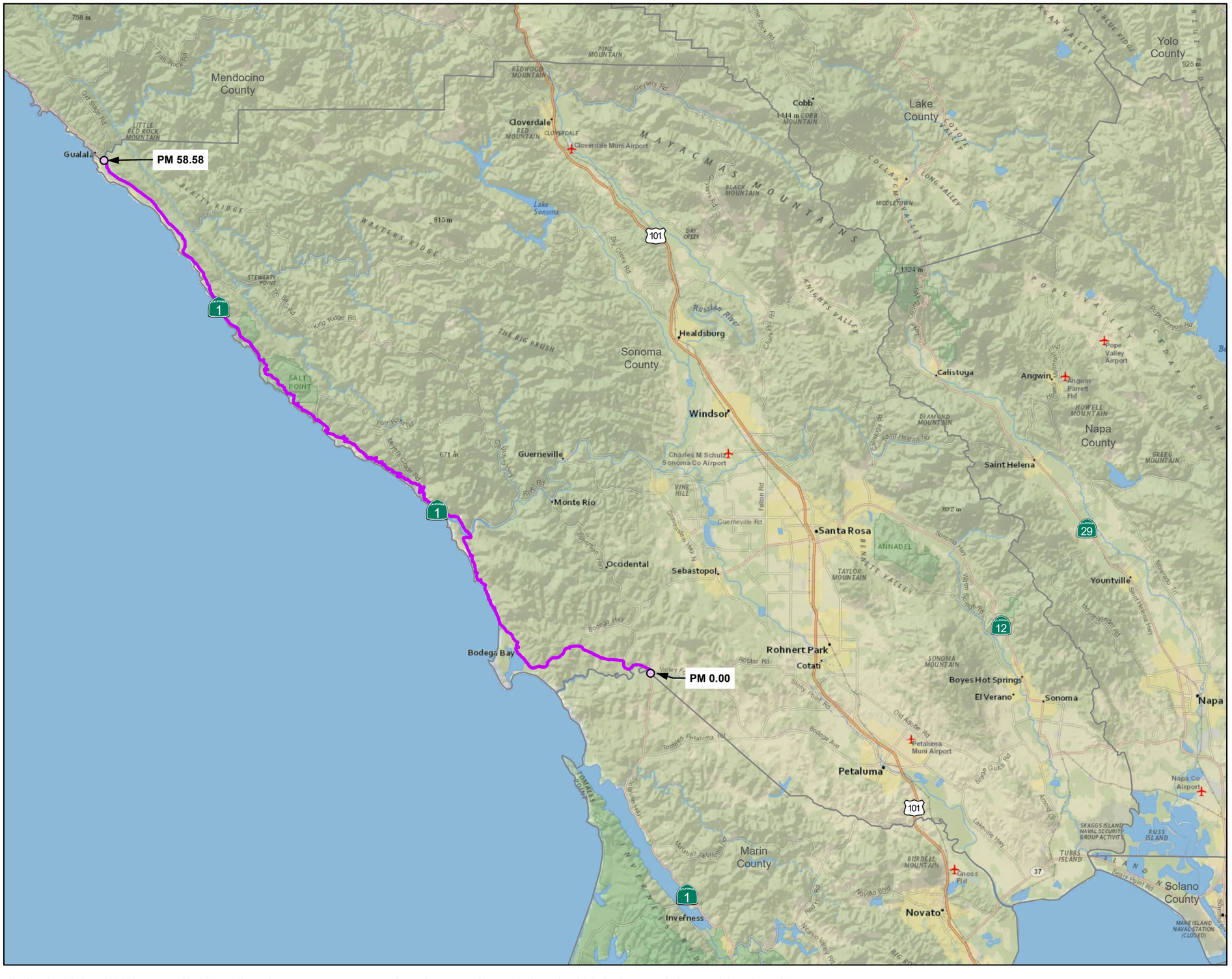
999 Fifth Avenue, Suite 290
San Rafael, CA 94901

The Honorable Mike McGuire
California State Senate, District 2
50 D Street, Suite 120A
Santa Rosa, CA 95404

The Honorable Jim Wood
California State Assembly, District 2
50 D Street, Suite 450
Santa Rosa, CA 95404

The Honorable Lynda Hopkins
Sonoma County Board of Supervisors, District 5
575 Administration Drive, Room 100-A
Santa Rosa, CA 95403

Appendix A Figures



Legend

- Post Mile
- Project Limits

N

0 6 12

Miles

Caltrans

FIGURE 1-1
Regional Location
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2022\PD\OCT\FIG1-1_REGIONAL_LOCATION_4G780.MXD

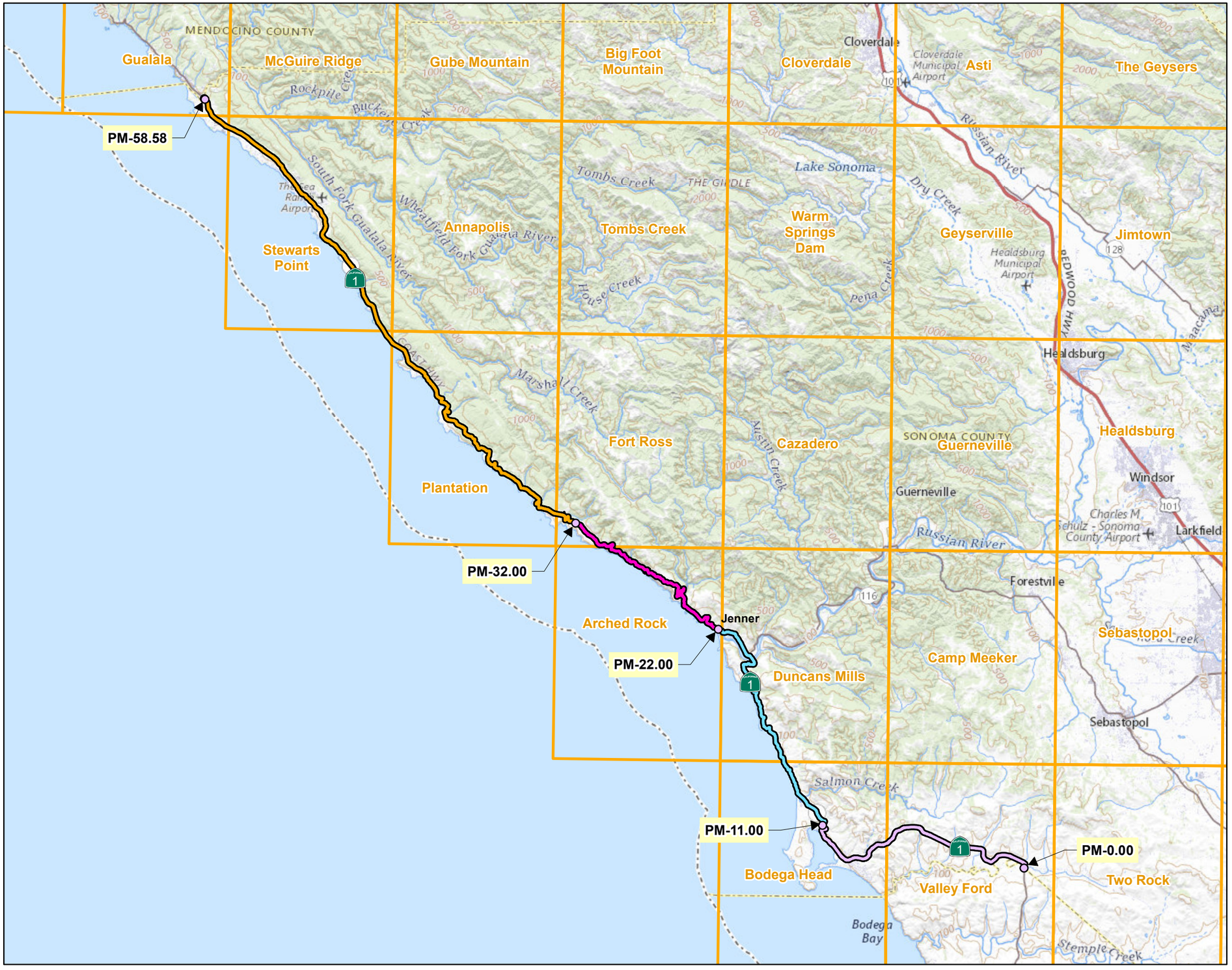
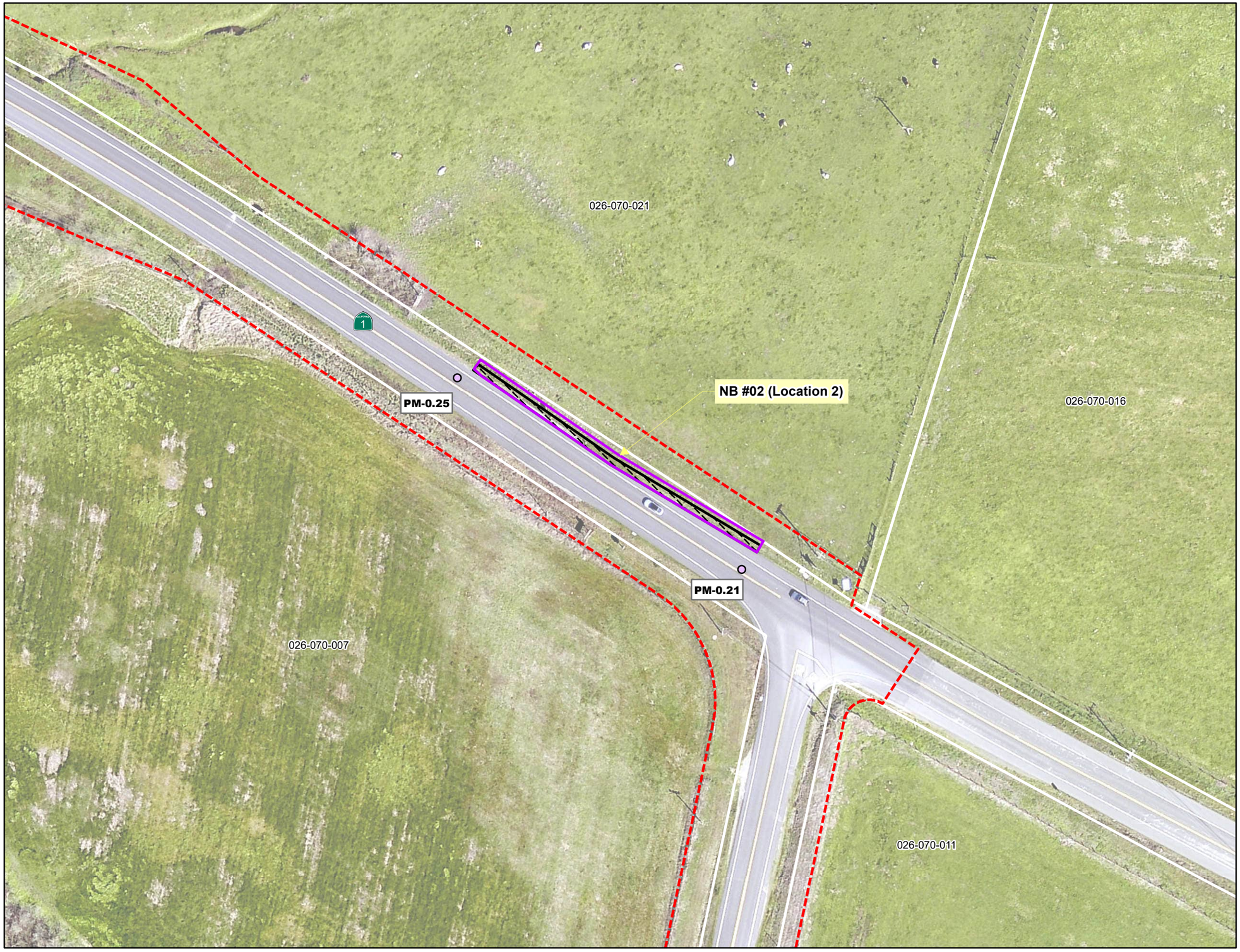


FIGURE 1-2
Project Location
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2022\DED\OCT\FIG1-2_PROJECT_LOCATION_4G780.MXD



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

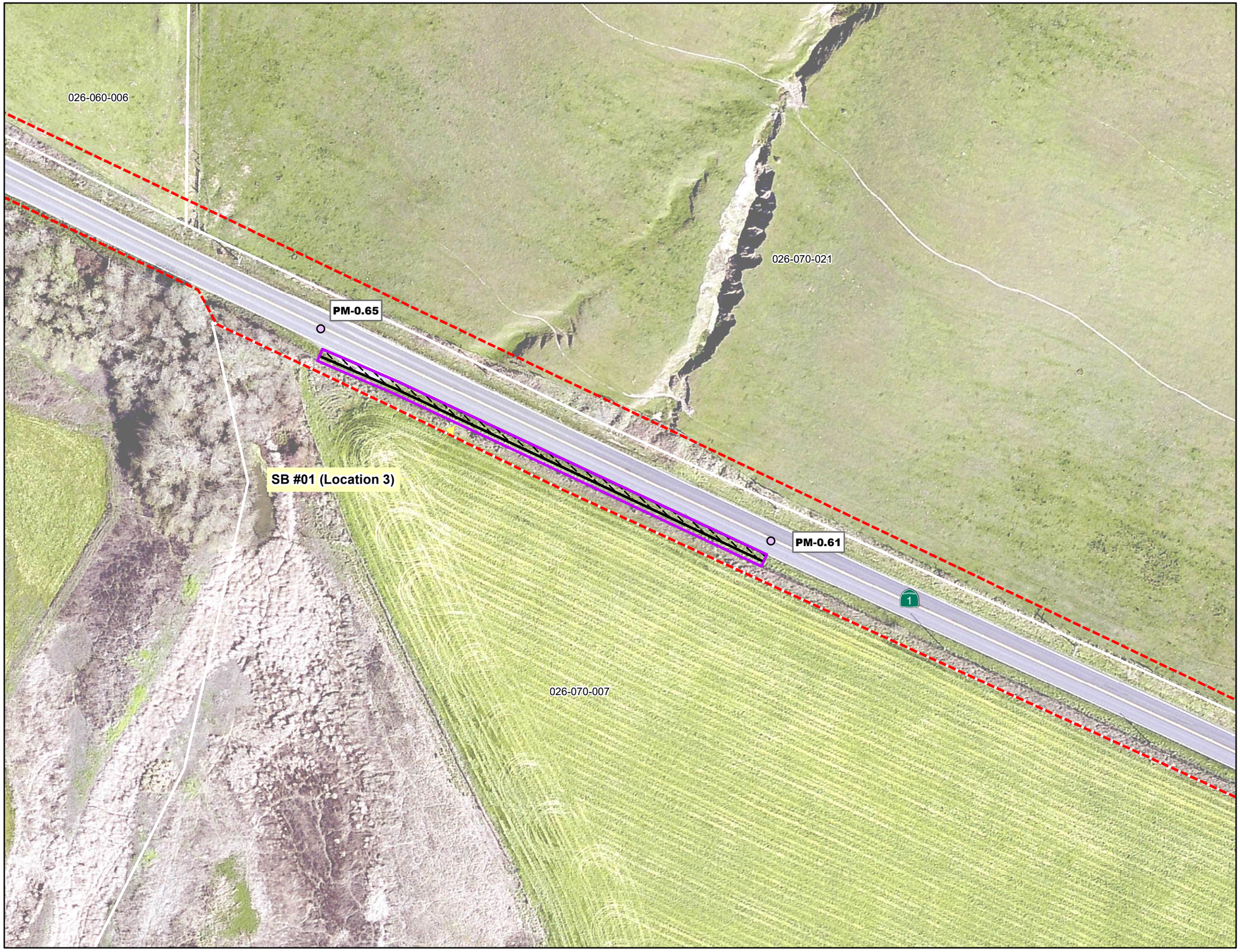
N

0 75 150
Feet

Caltrans

Figure 1-3
Map 01 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Caltrans

Figure 1-3
Map 02 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM

LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Staging Area

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Caltrans

Figure 1-3
Map 03 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM

LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Caltrans

Figure 1-3
Map 04 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM

LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 1)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

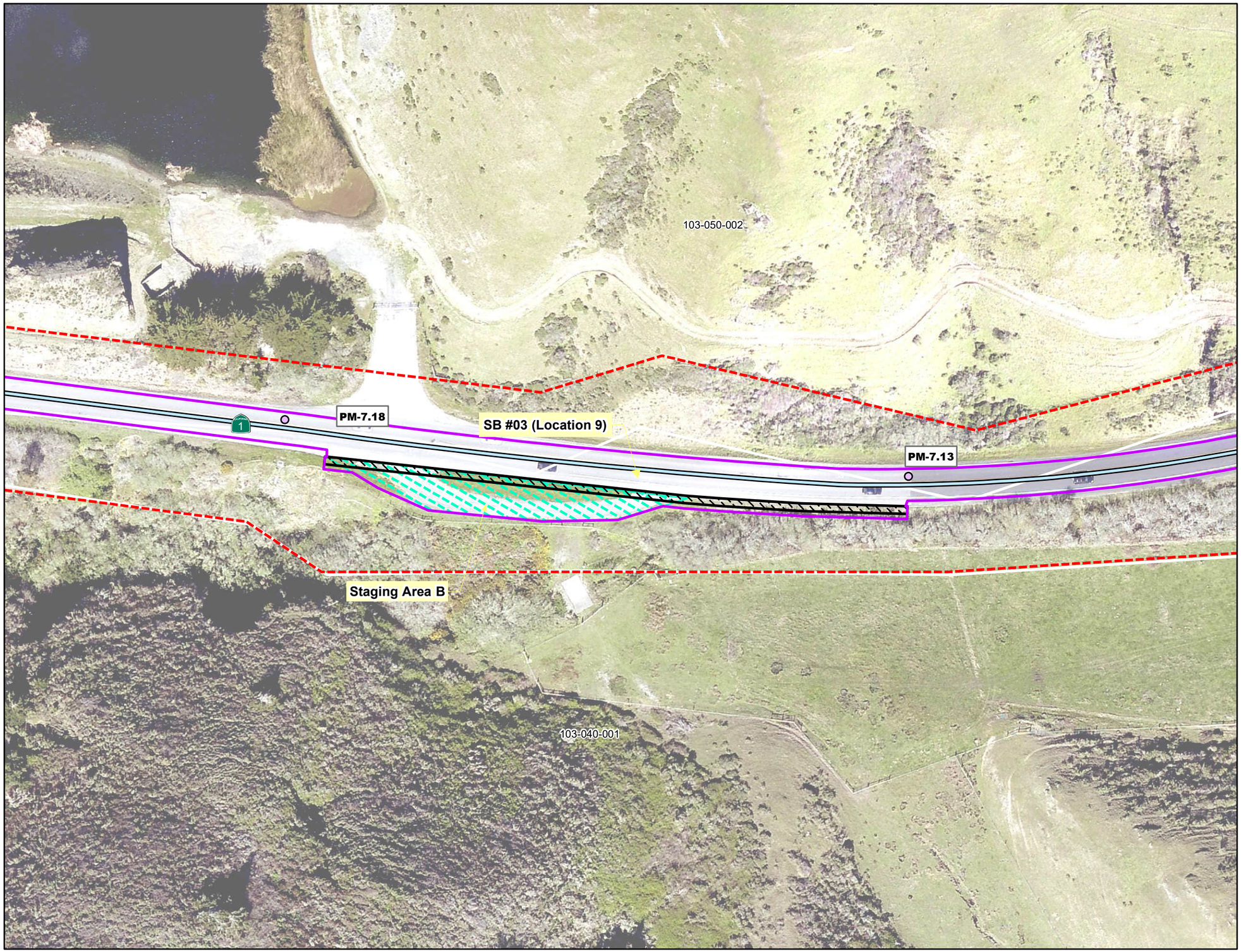
N

0 75 150
Feet

Caltrans

Figure 1-3
Map 05 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 1)
- Widen Shoulder
- Staging Area

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

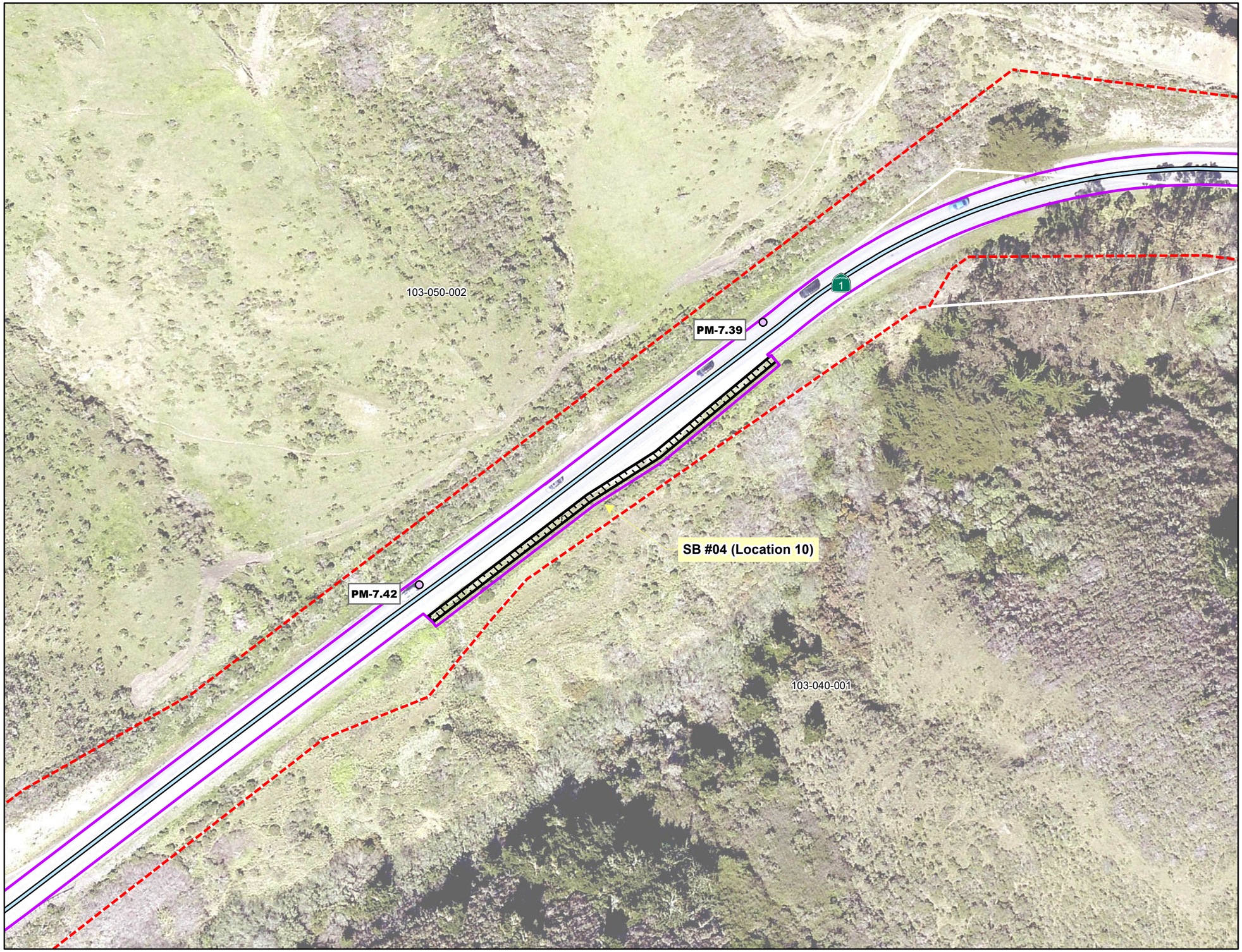
Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Figure 1-3
Map 06 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 1)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

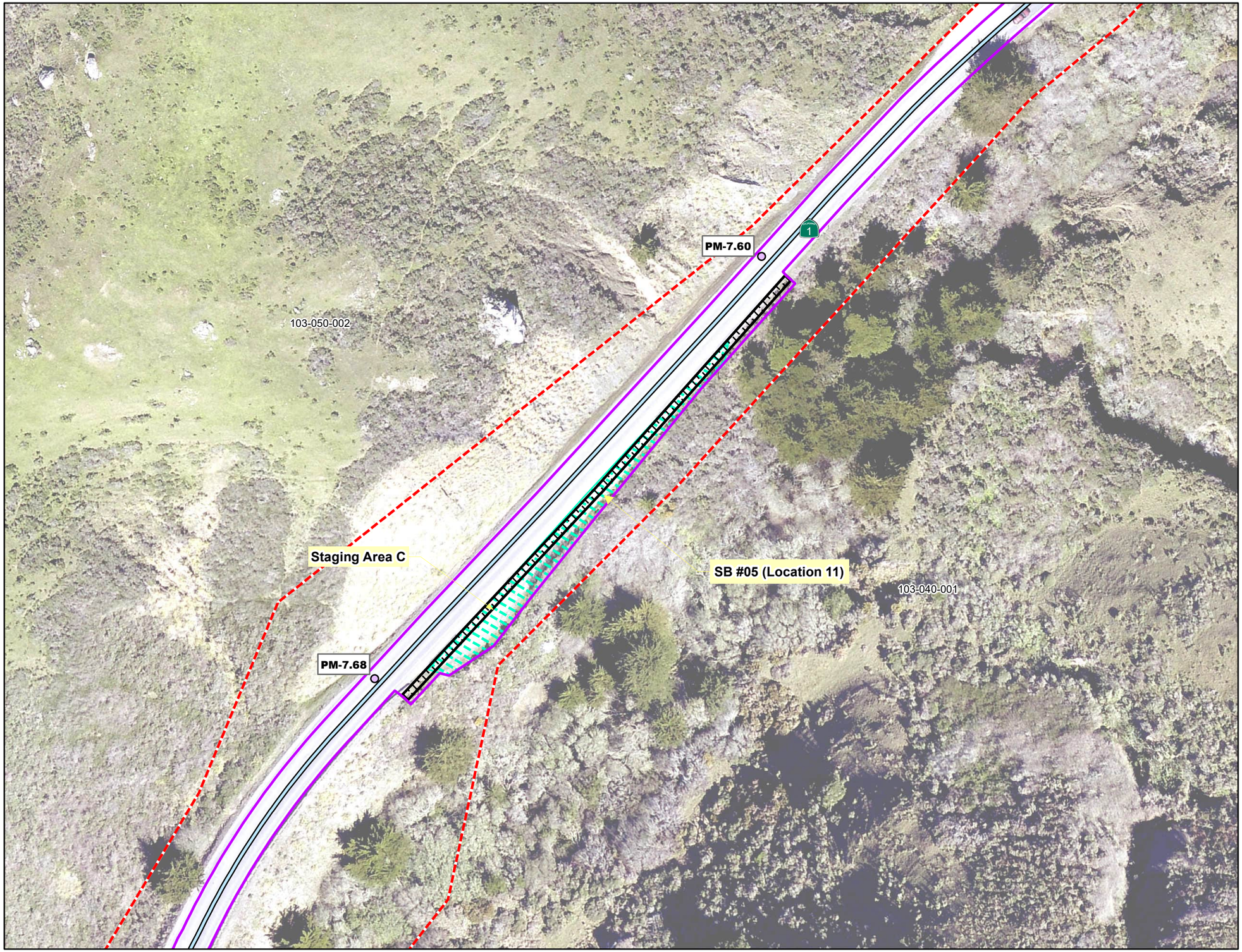
N

0 75 150
Feet

Caltrans

Figure 1-3
Map 07 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 1)
- Widen Shoulder
- Staging Area

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

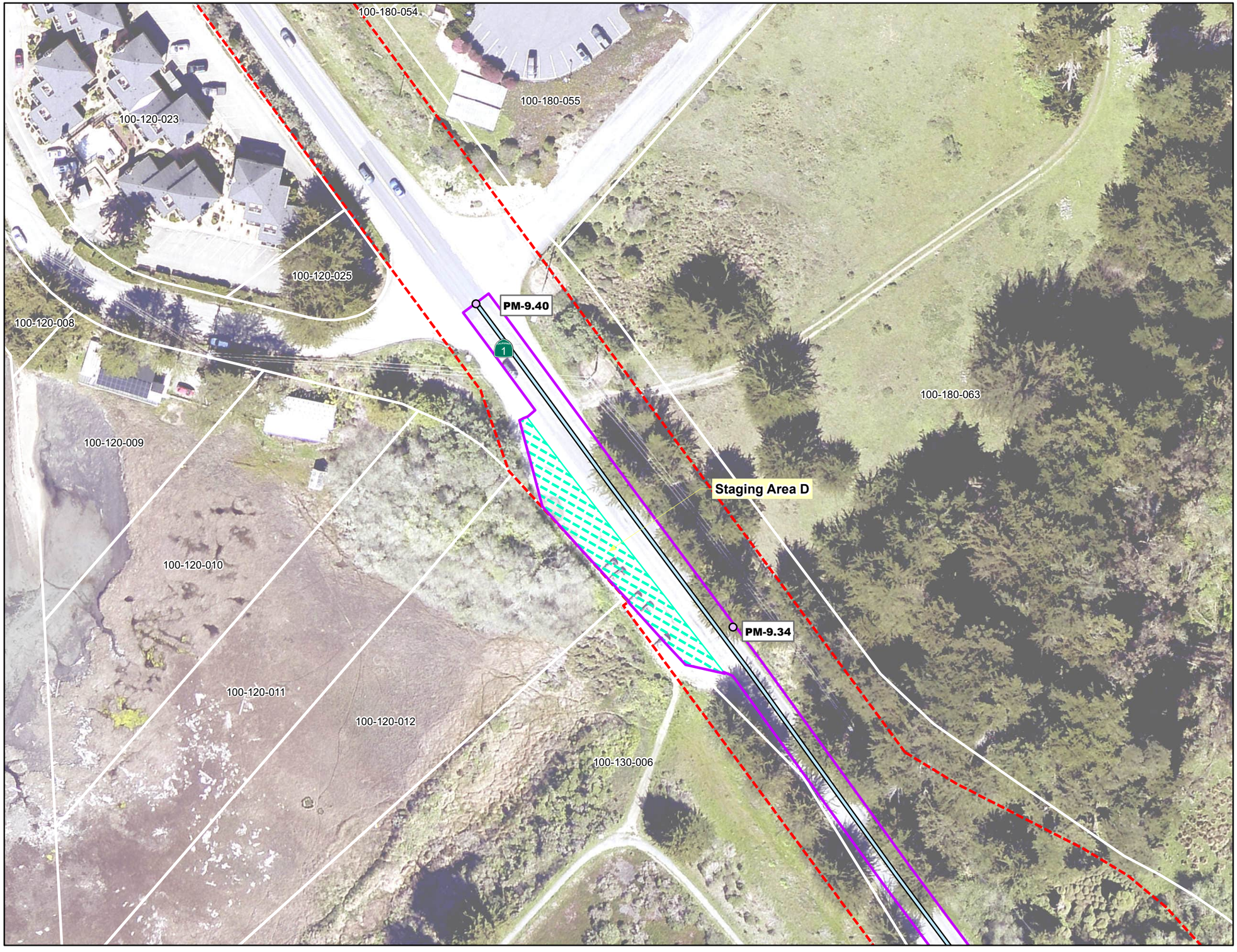
N

0 75 150
Feet

Caltrans

Figure 1-3
Map 08 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 1)
- Staging Area

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Caltrans

Figure 1-3
Map 09 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM

LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 2)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

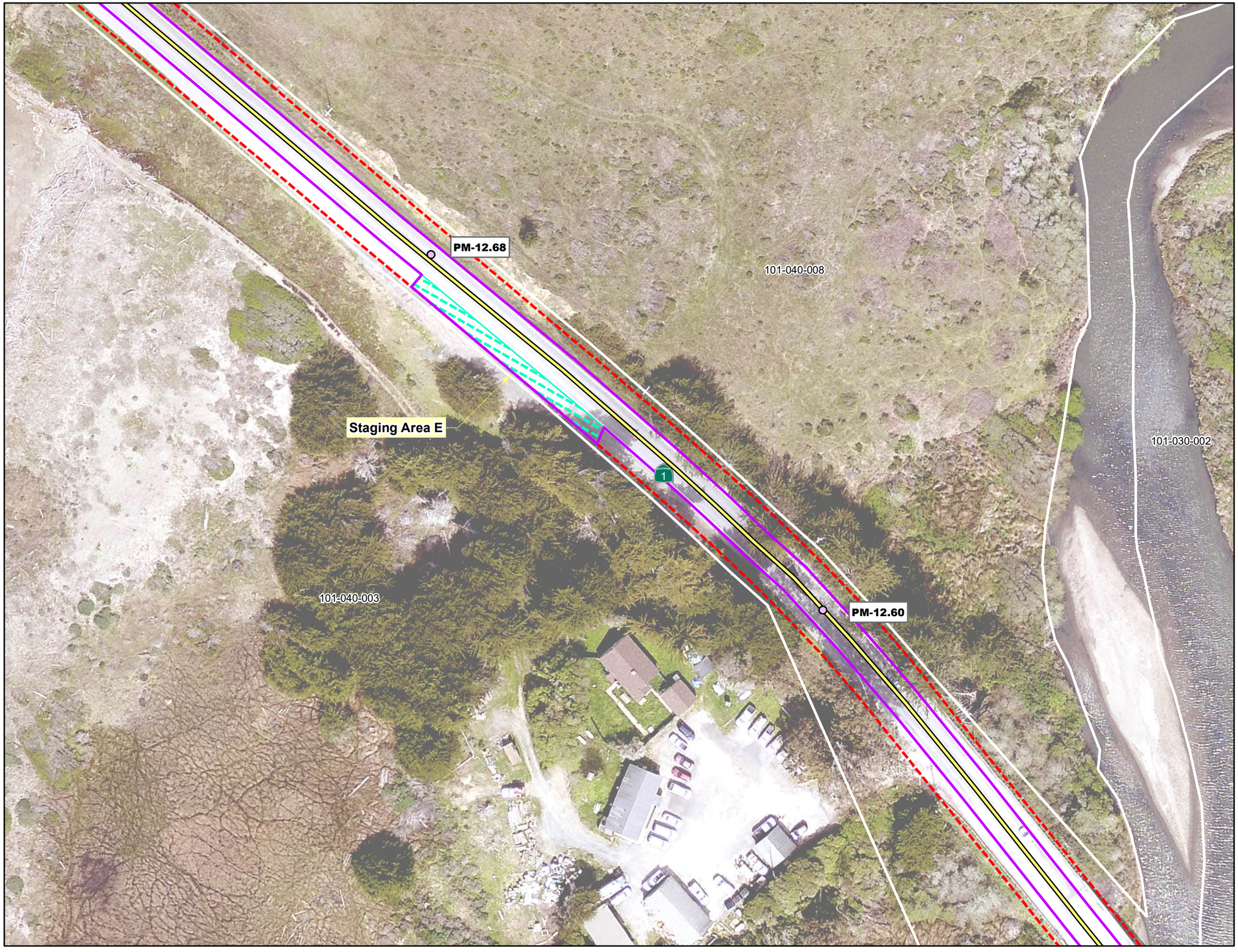
Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Figure 1-3
Map 10 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 2)
- Staging Area

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Caltrans

Figure 1-3
Map 11 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM

LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 2)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Caltrans

Figure 1-3
Map 12 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM

LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 2)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Caltrans

Figure 1-3
Map 13 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM

LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 2)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

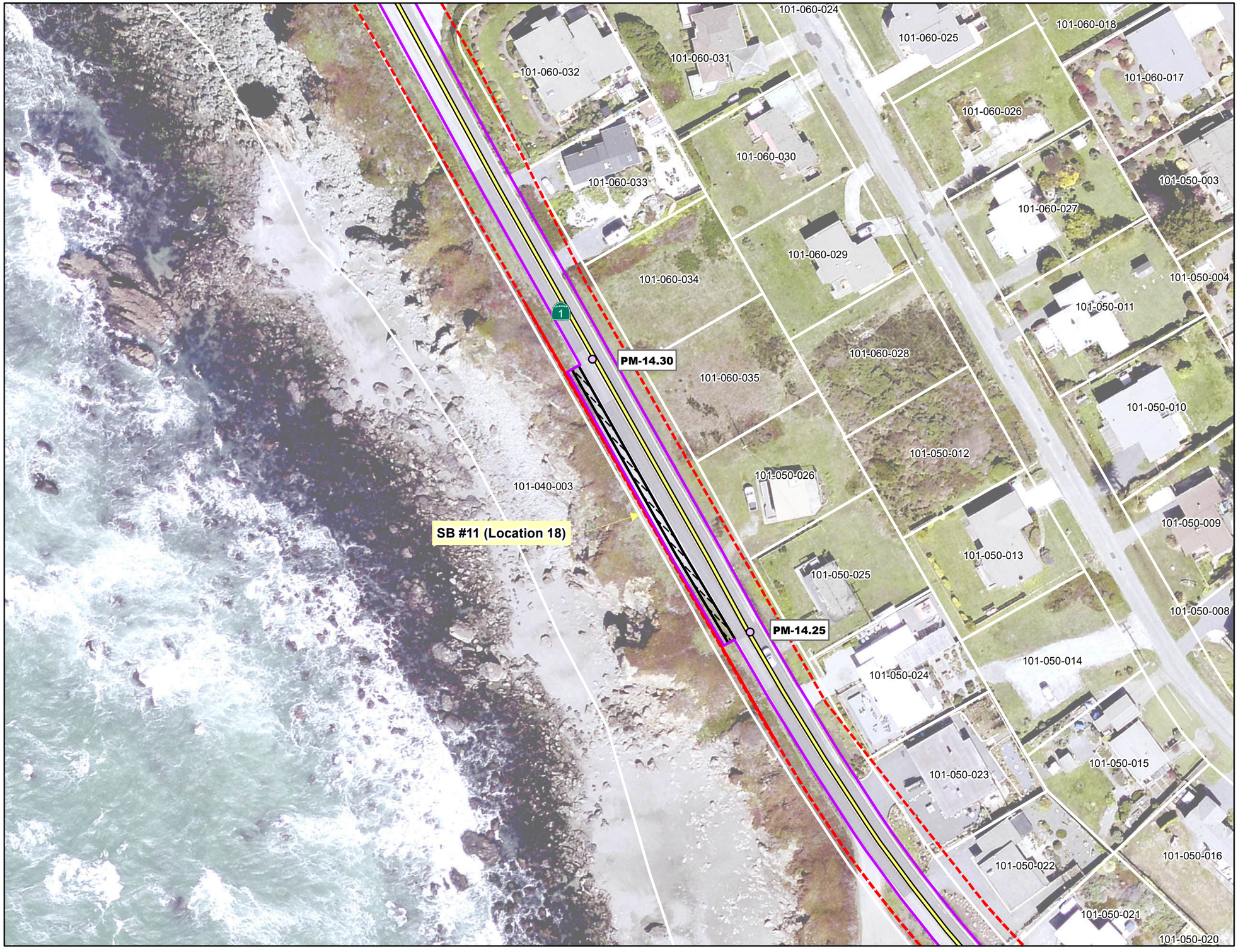
N

0 75 150
Feet

Caltrans

Figure 1-3
Map 14 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 2)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Figure 1-3
Map 15 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM

LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 2)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Figure 1-3
Map 16 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM

LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 2)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Figure 1-3
Map 17 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM

LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 2)
- Staging Area

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Caltrans

Figure 1-3
Map 18 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM

LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 2)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Figure 1-3
Map 19 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM

LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 2)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Figure 1-3
Map 20 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM

LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 2)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

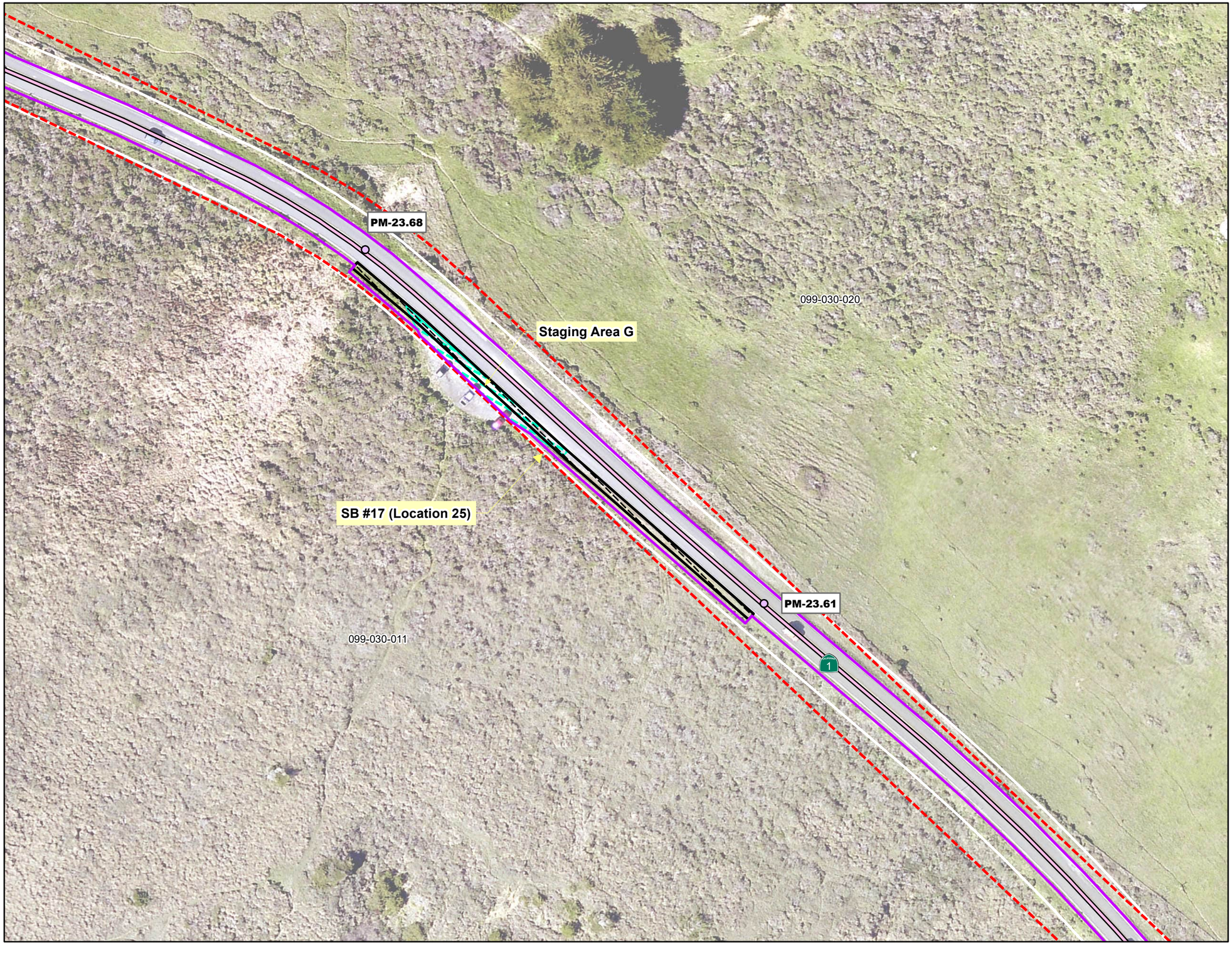
N

0 75 150
Feet

Caltrans

Figure 1-3
Map 21 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 3)
- Widen Shoulder
- Staging Area

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

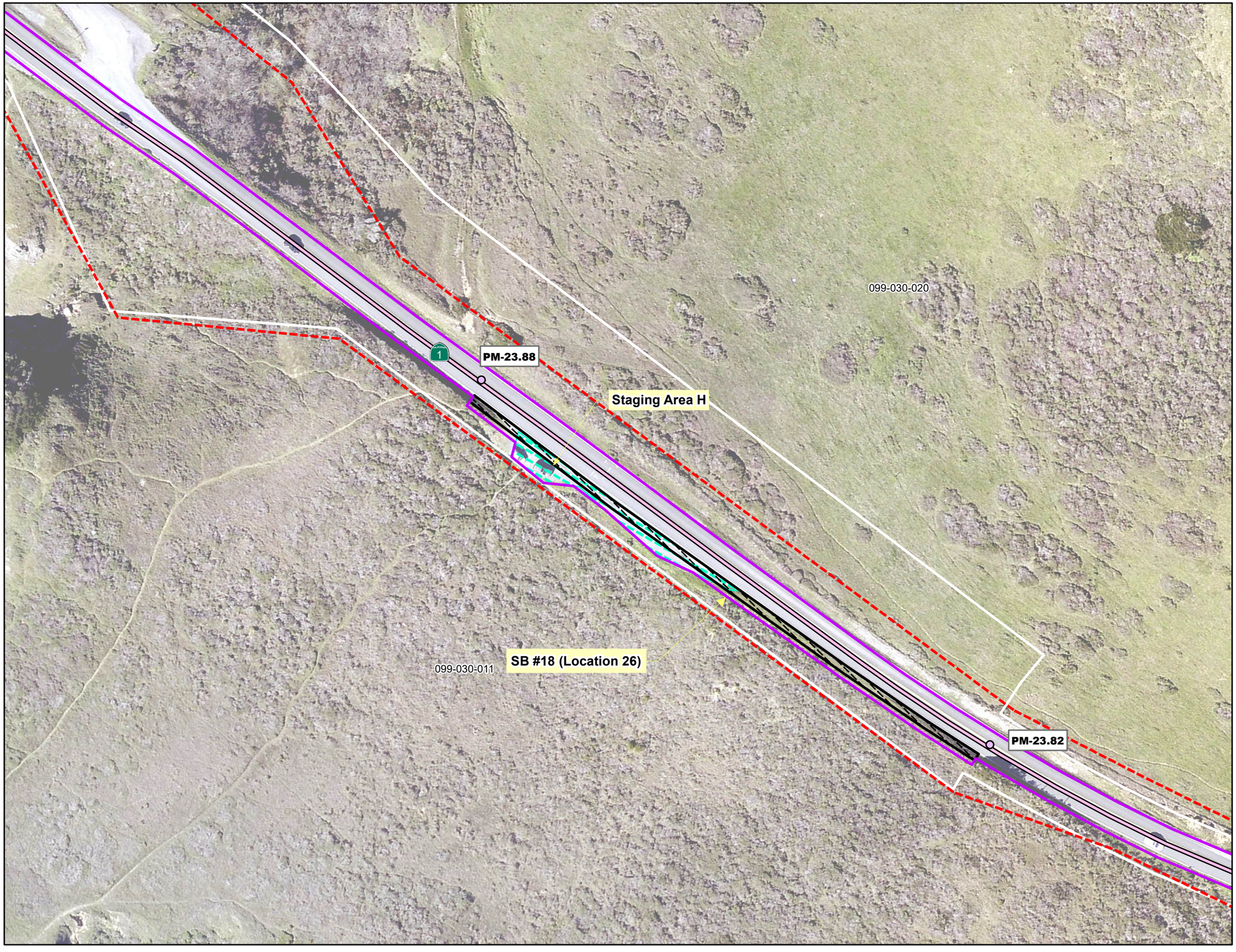
N

0 75 150
Feet

Caltrans

Figure 1-3
Map 22 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 3)
- Widen Shoulder
- Staging Area

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

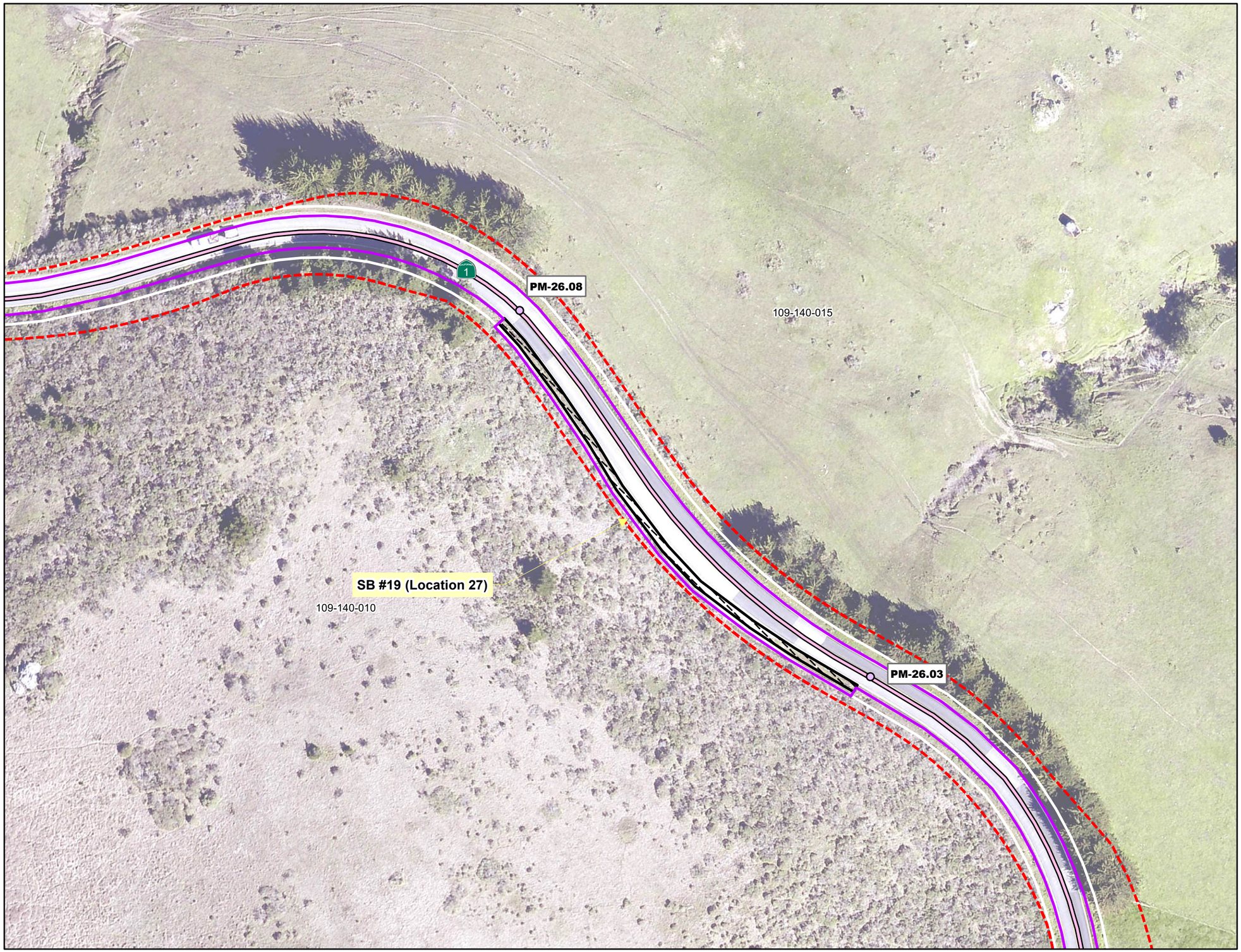
Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Figure 1-3
Map 23 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 3)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

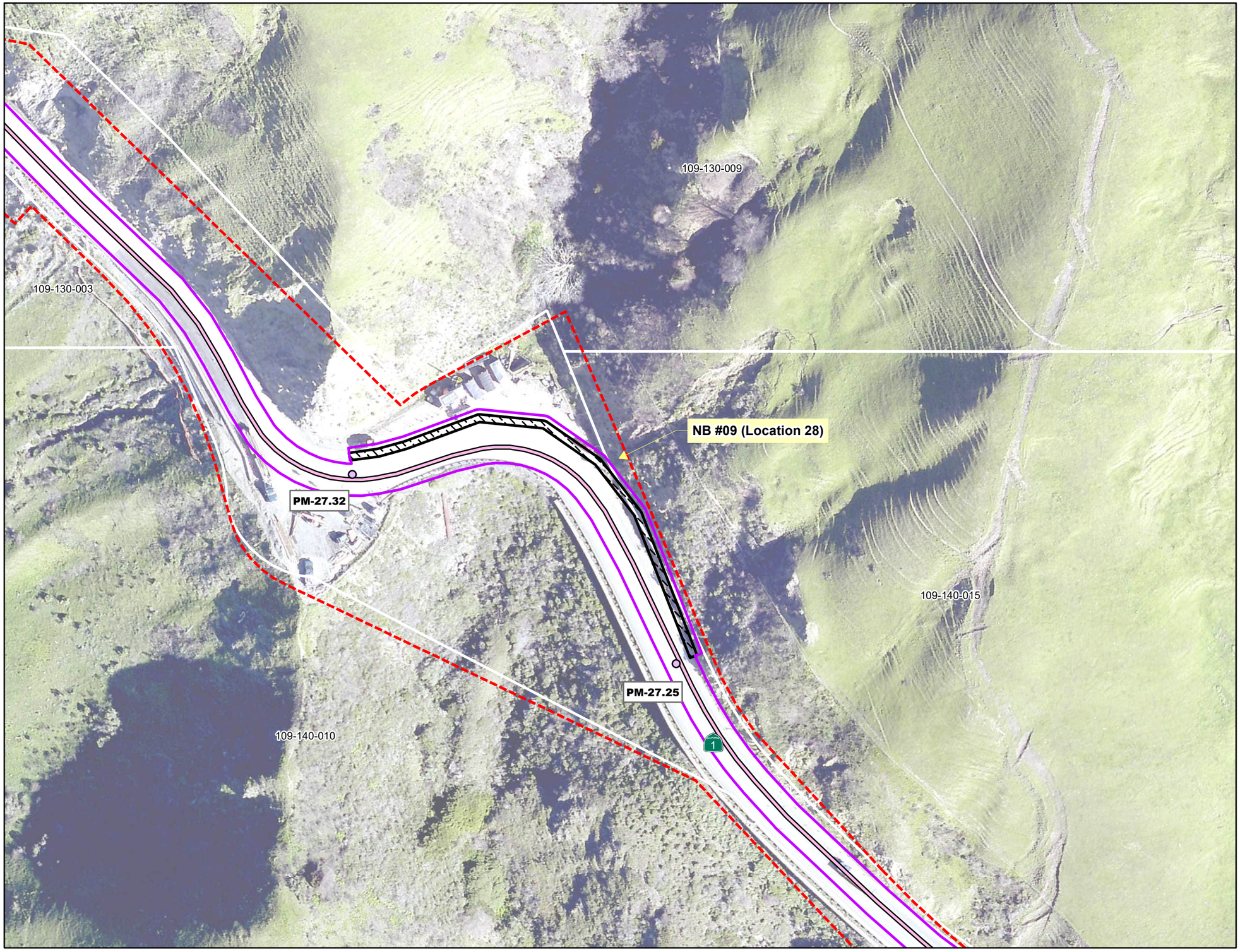
N

0 75 150
Feet

Caltrans

Figure 1-3
Map 24 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 3)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

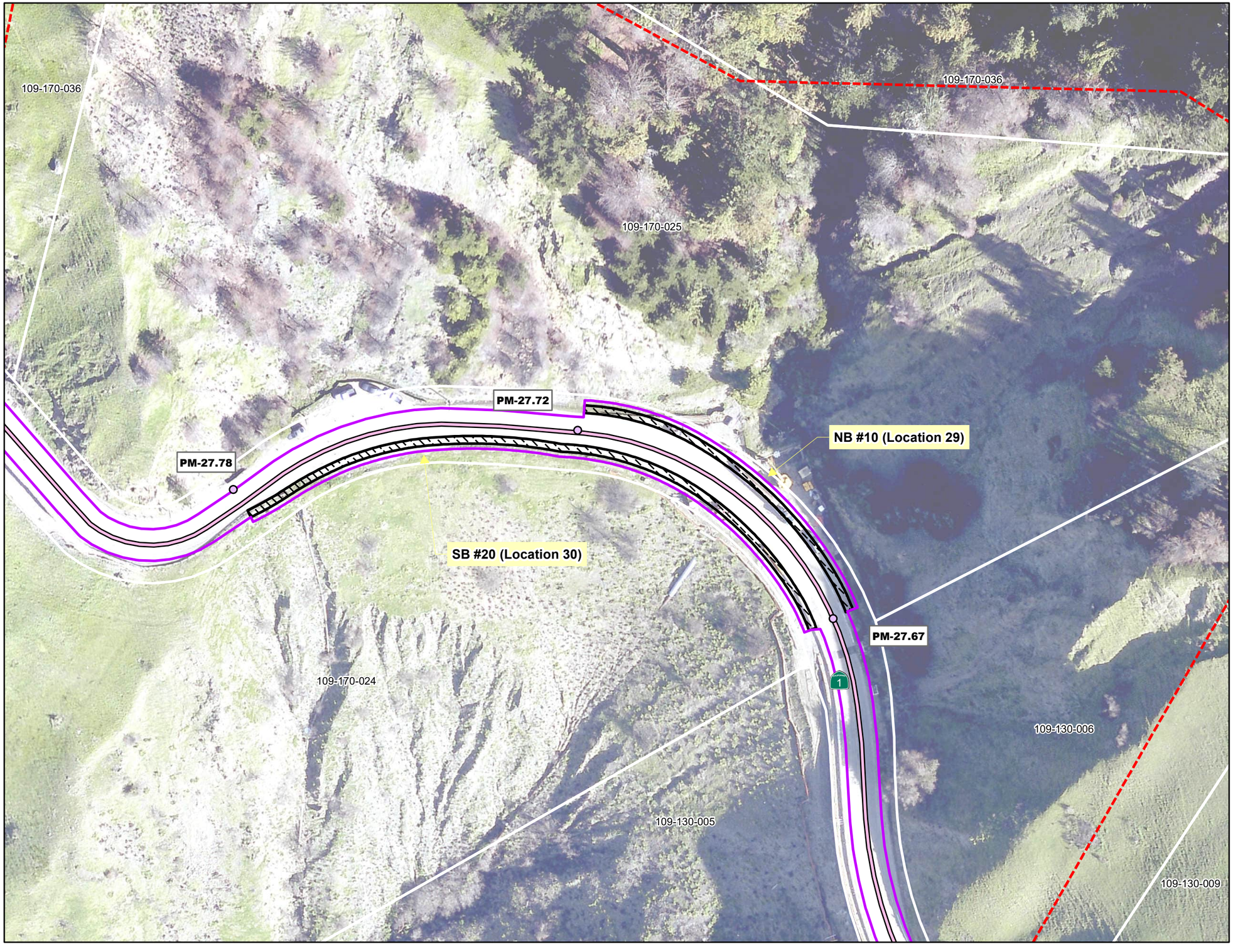
Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Figure 1-3
Map 25 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 3)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

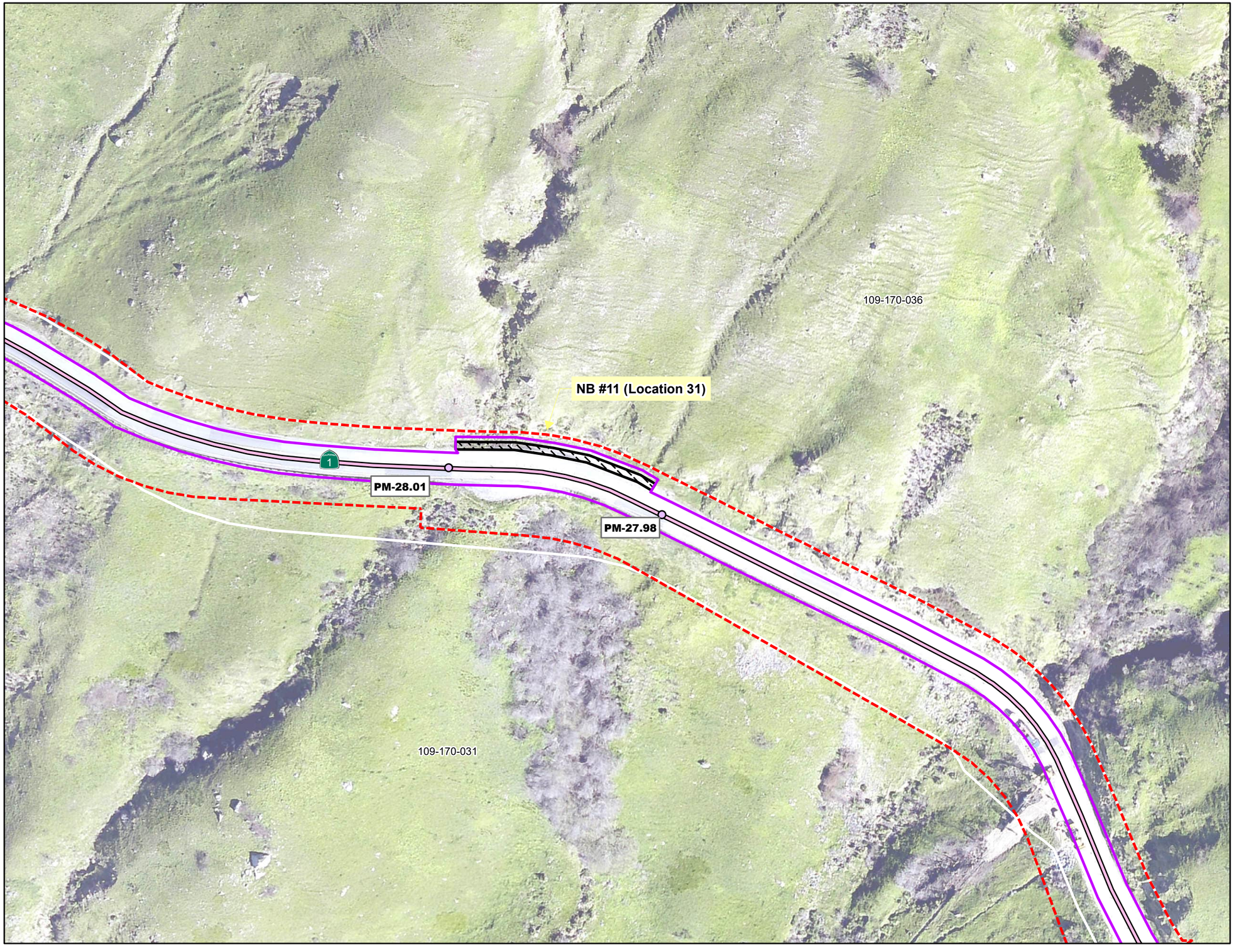
N

0 75 150
Feet

Caltrans

Figure 1-3
Map 26 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 3)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

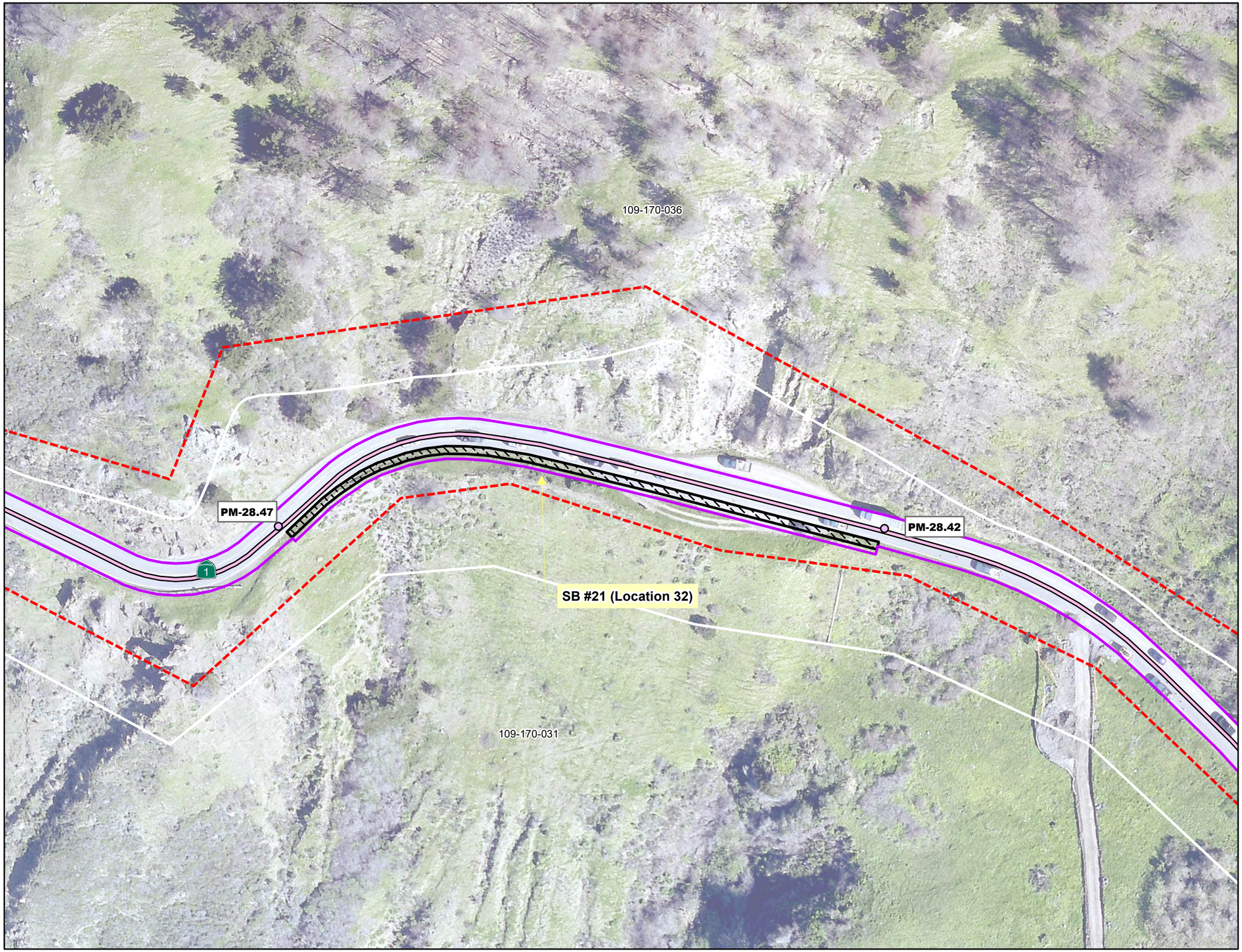
N

0 75 150
Feet

Caltrans

Figure 1-3
Map 27 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 3)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

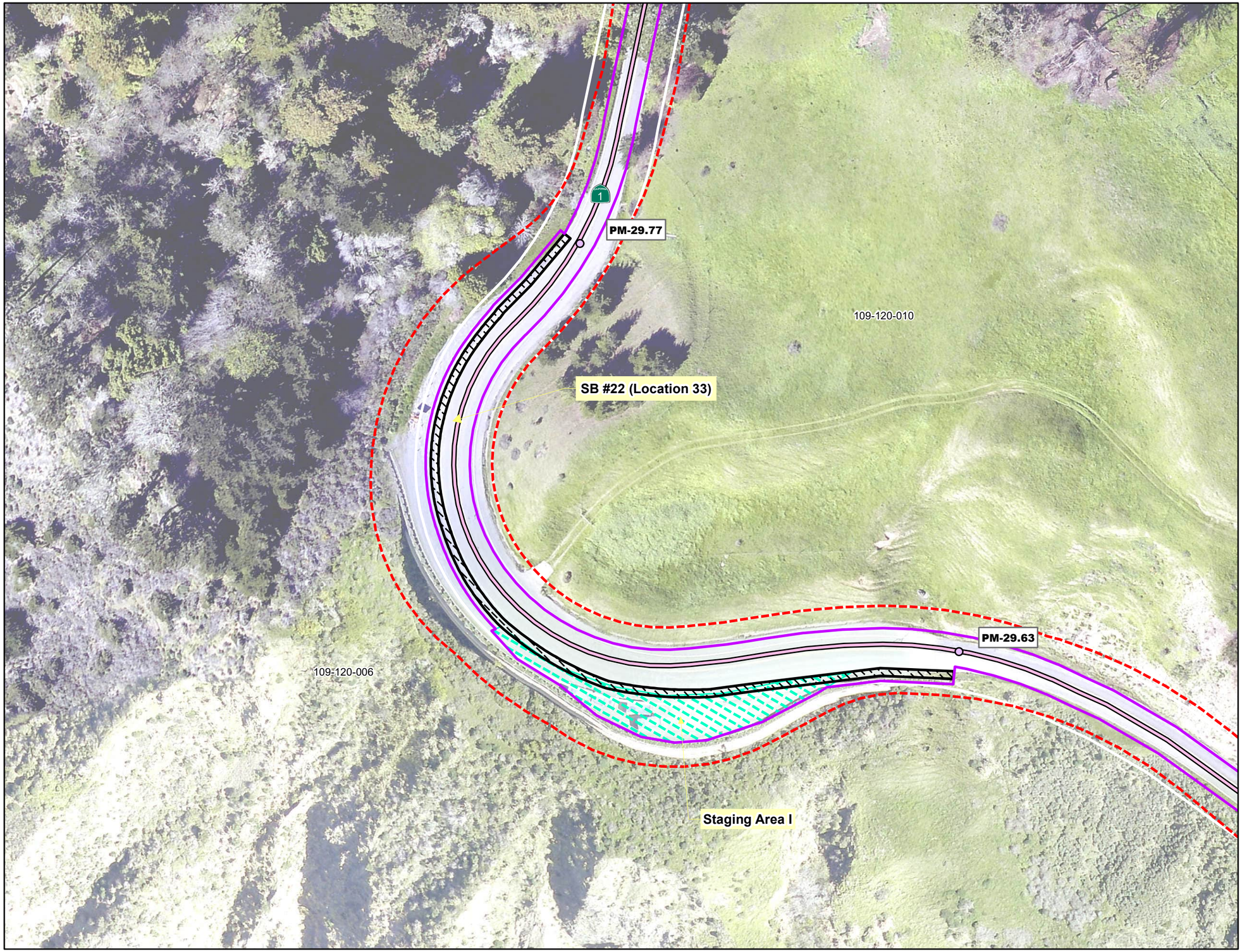
N

0 75 150
Feet

Caltrans

Figure 1-3
Map 28 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 3)
- Widen Shoulder
- Staging Area

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

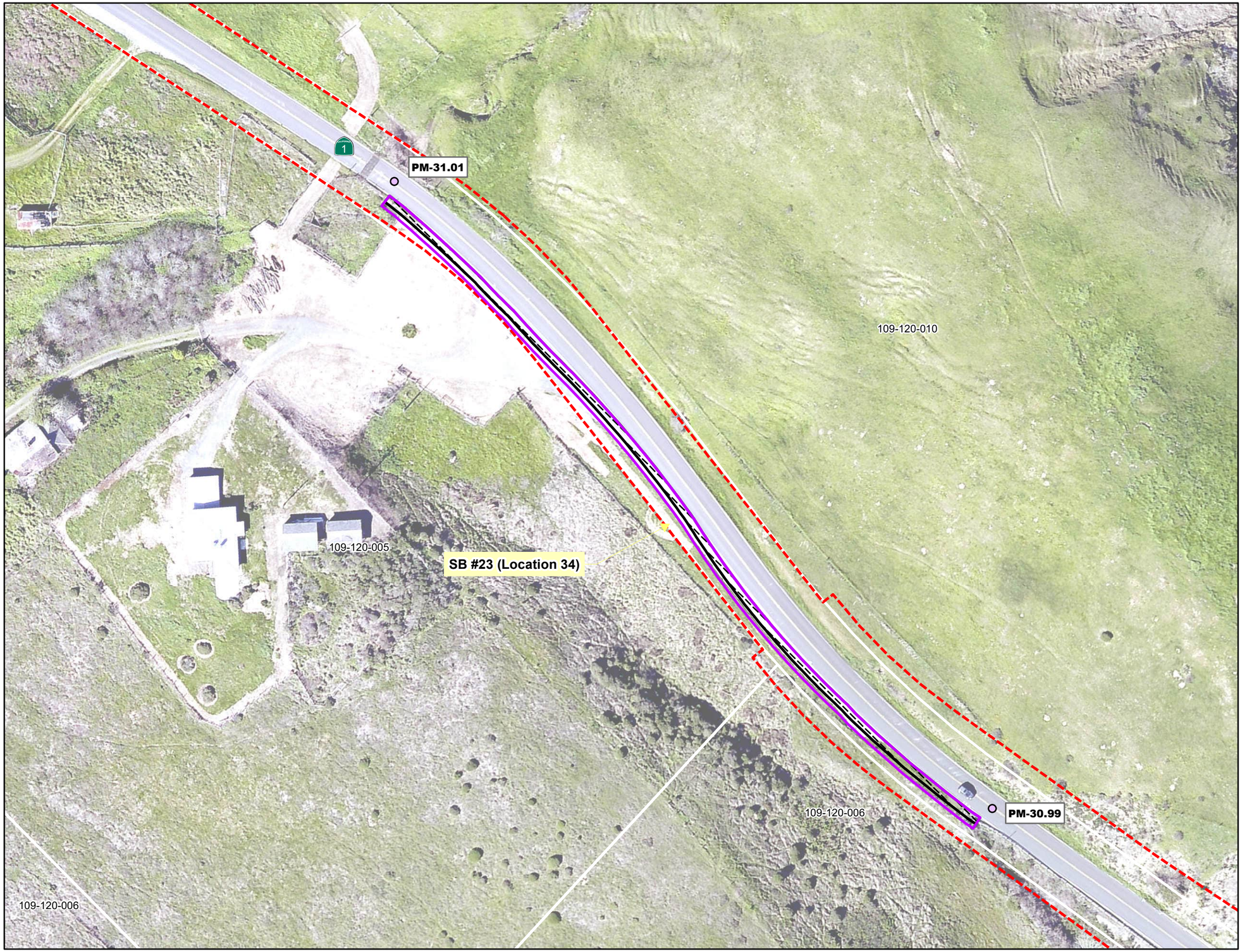
Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Figure 1-3
Map 29 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

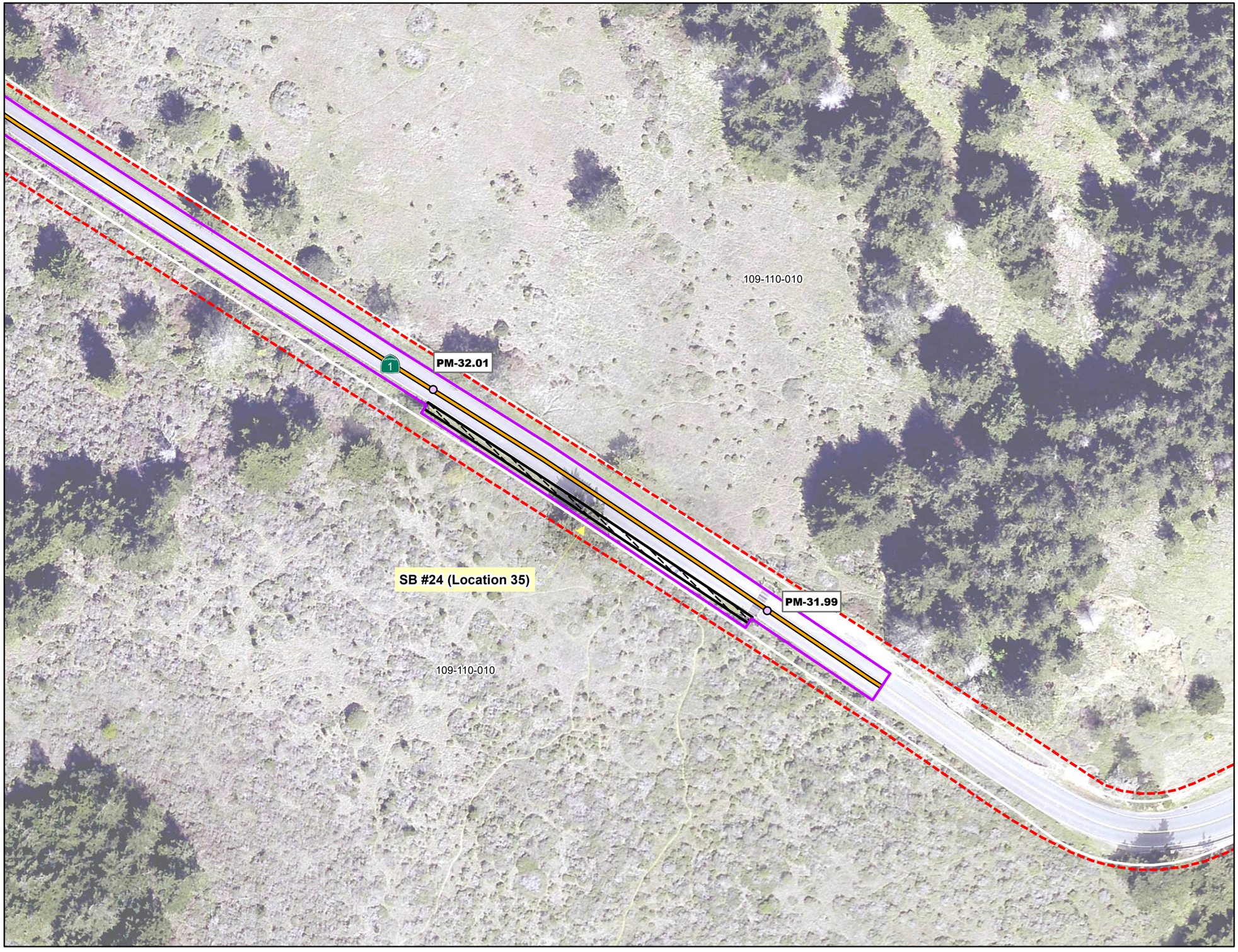
Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Figure 1-3
Map 30 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

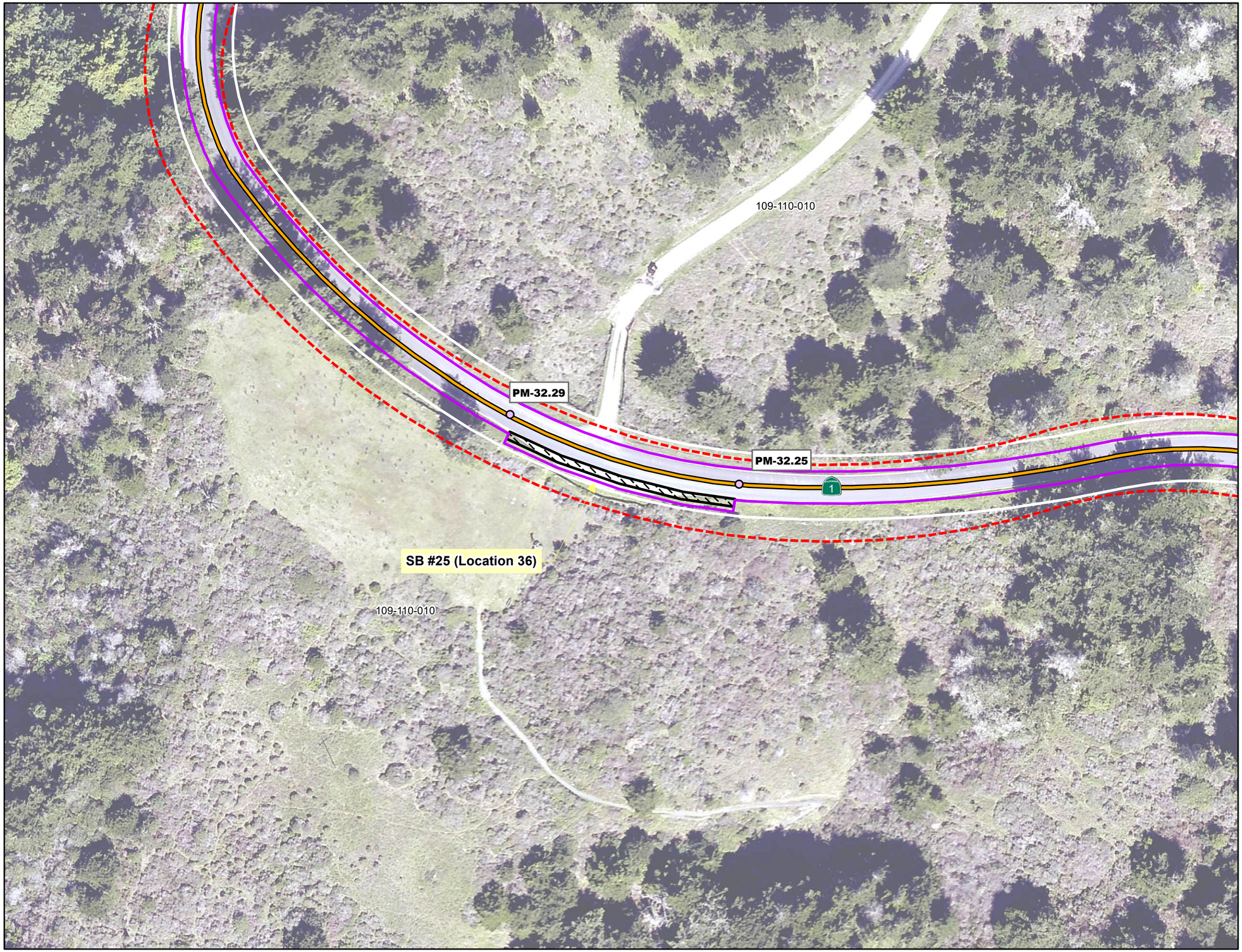
Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Figure 1-3
Map 31 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Figure 1-3
Map 32 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM

LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Caltrans

Figure 1-3
Map 33 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM

LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

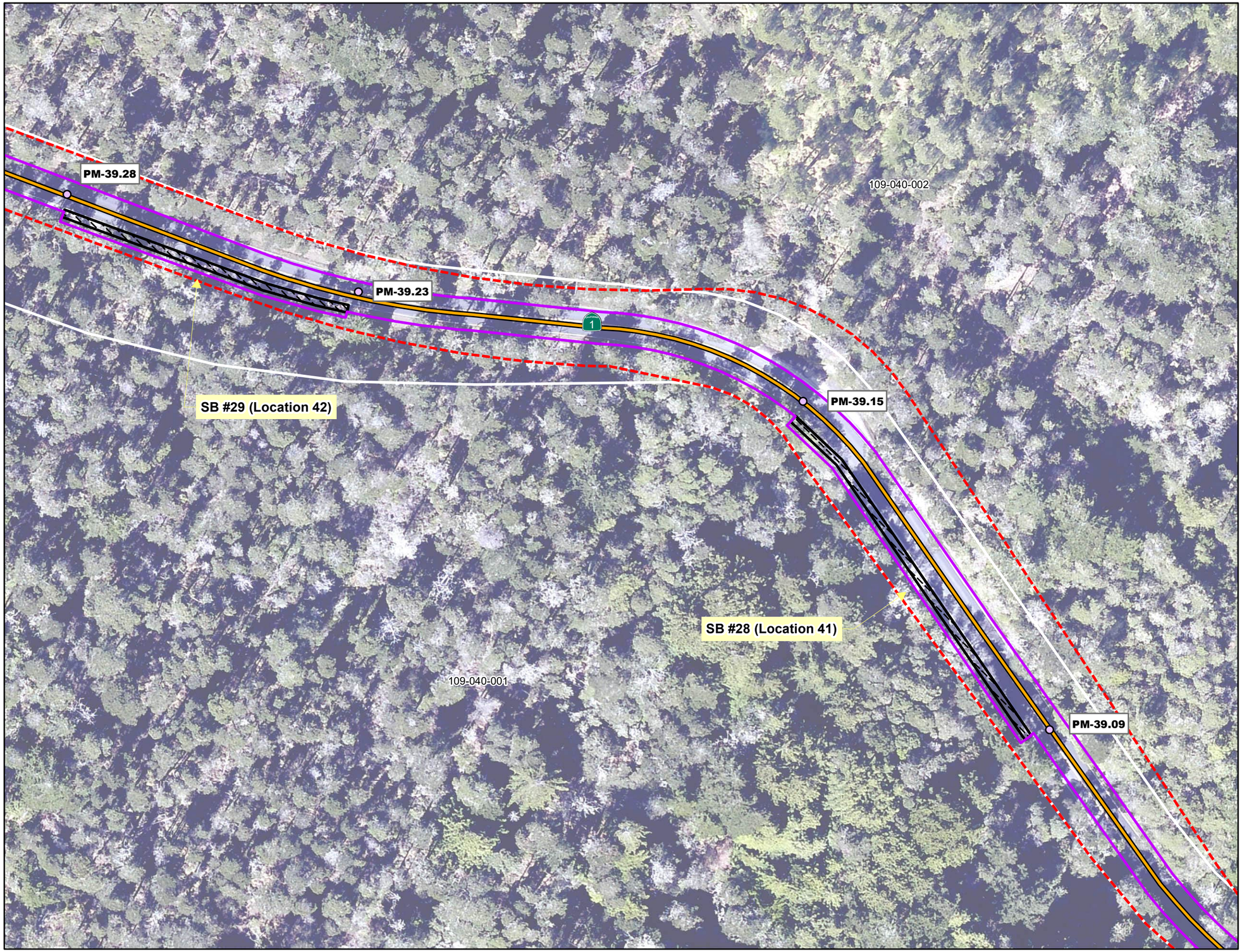
N

0 75 150
Feet

Caltrans

Figure 1-3
Map 34 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Figure 1-3
Map 35 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM

LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

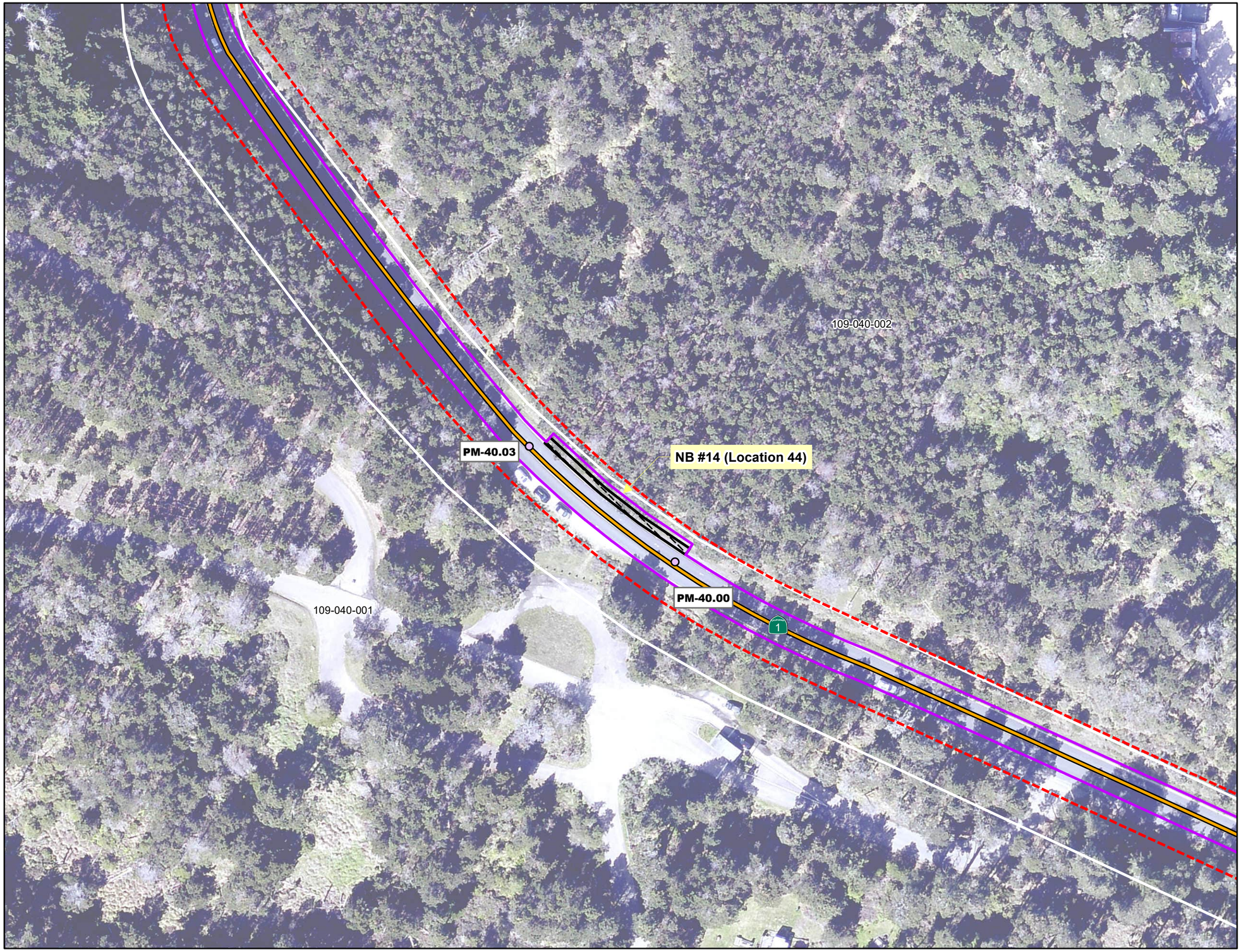
N

0 75 150
Feet

Caltrans

Figure 1-3
Map 36 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

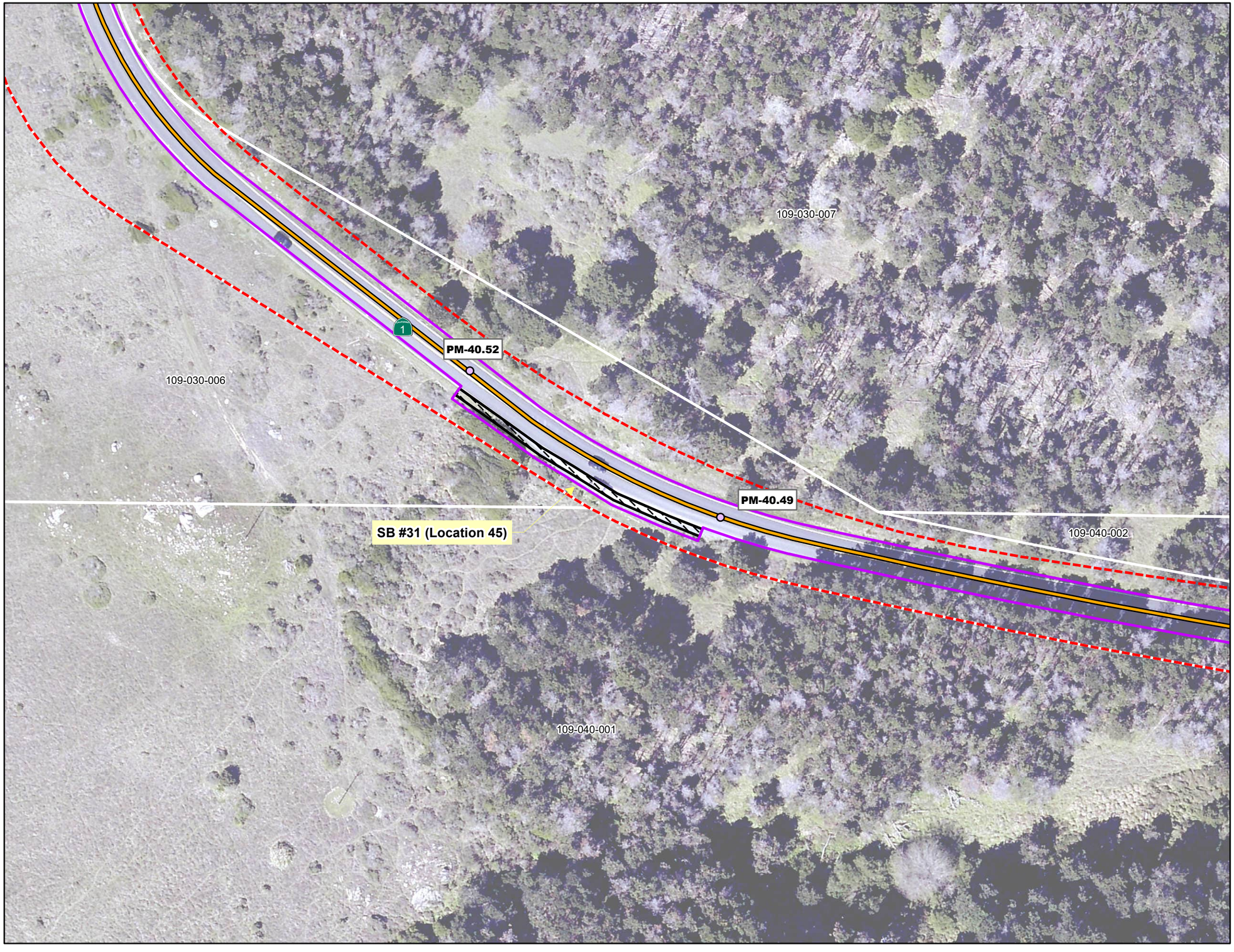
N

0 75 150
Feet

Caltrans

Figure 1-3
Map 37 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Caltrans

Figure 1-3
Map 38 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM

LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

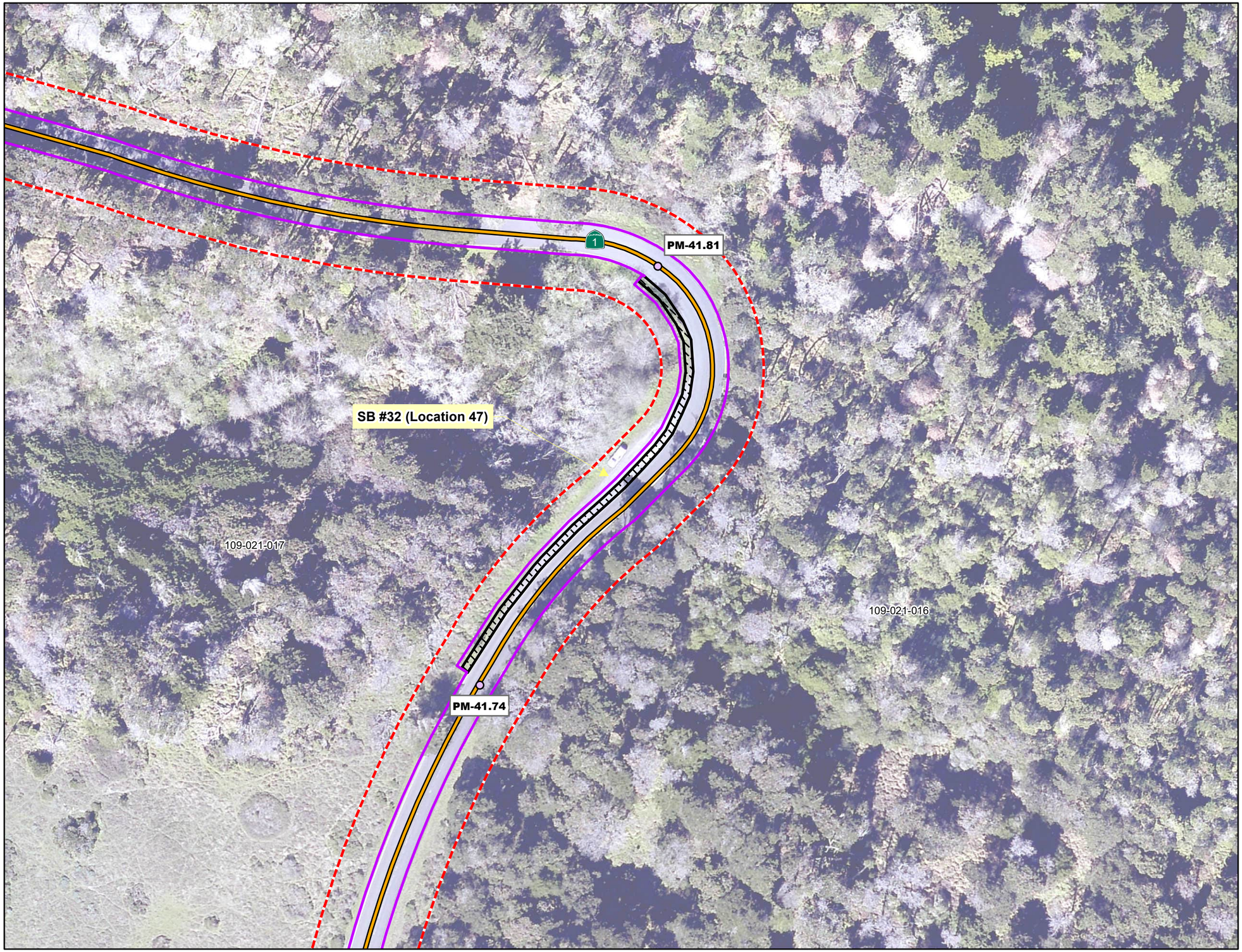
Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Figure 1-3
Map 39 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Caltrans

Figure 1-3
Map 40 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM

LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

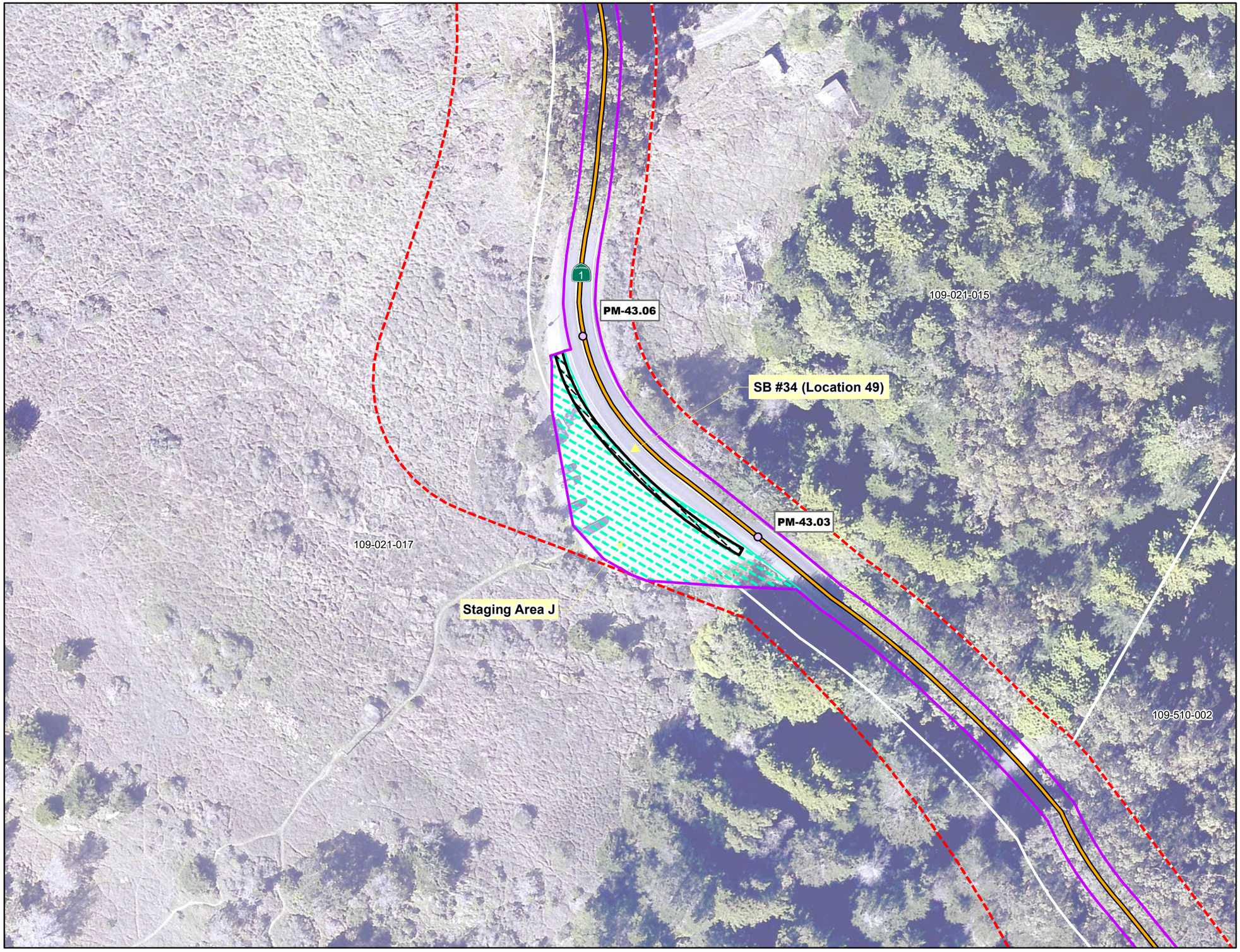
N

0 75 150
Feet

Caltrans

Figure 1-3
Map 41 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder
- Staging Area

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

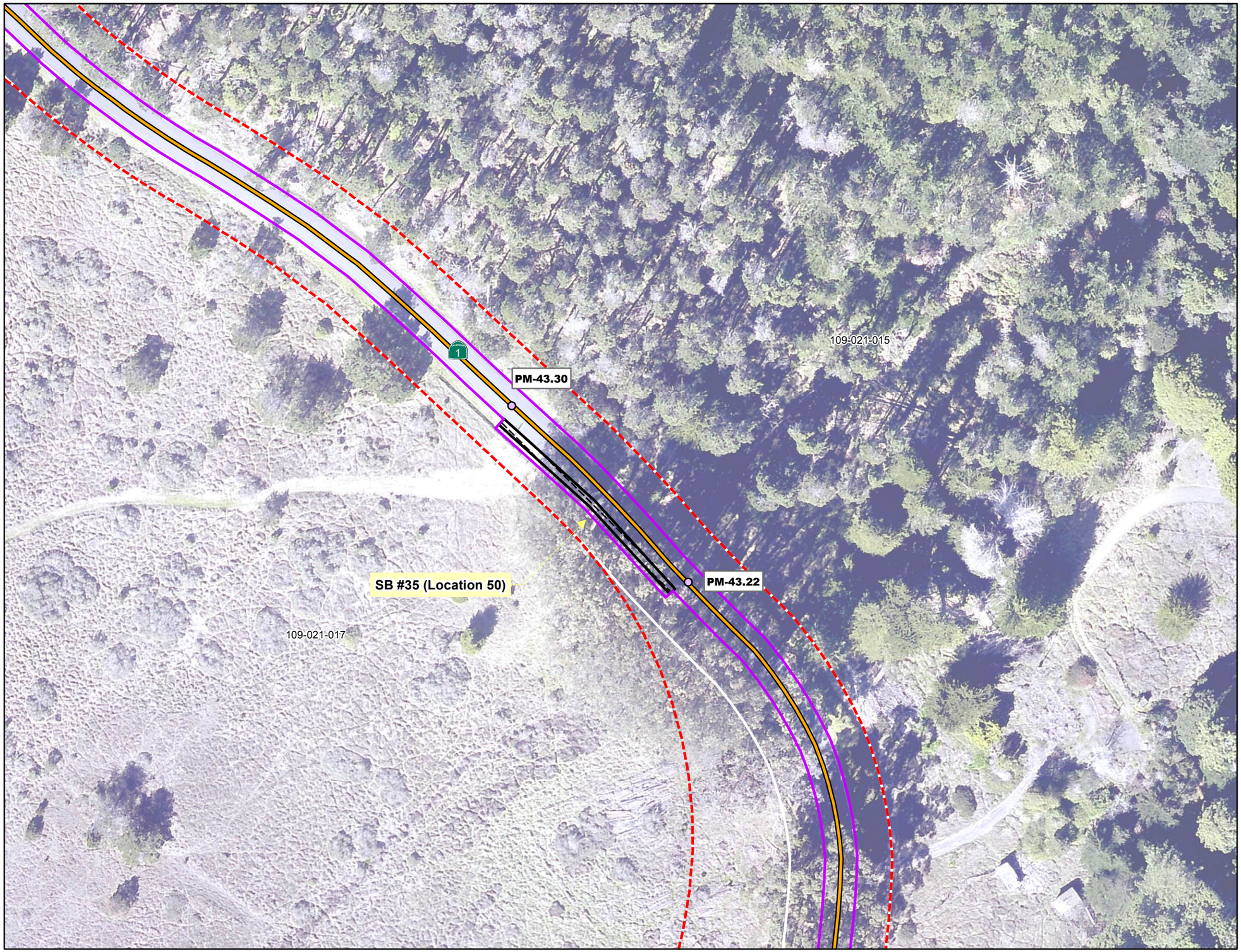
Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Figure 1-3
Map 42 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

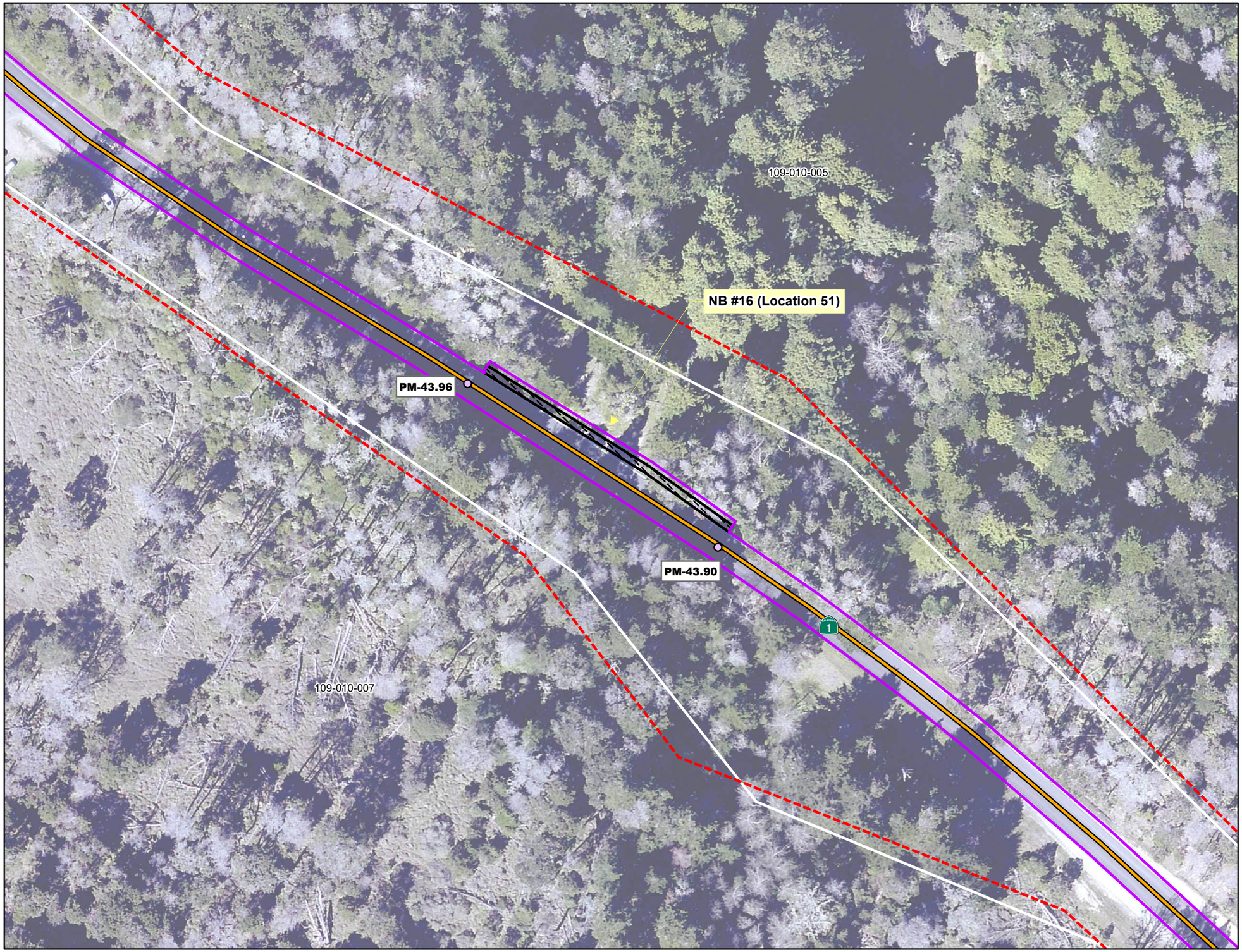
N

0 75 150
Feet

Caltrans

Figure 1-3
Map 43 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

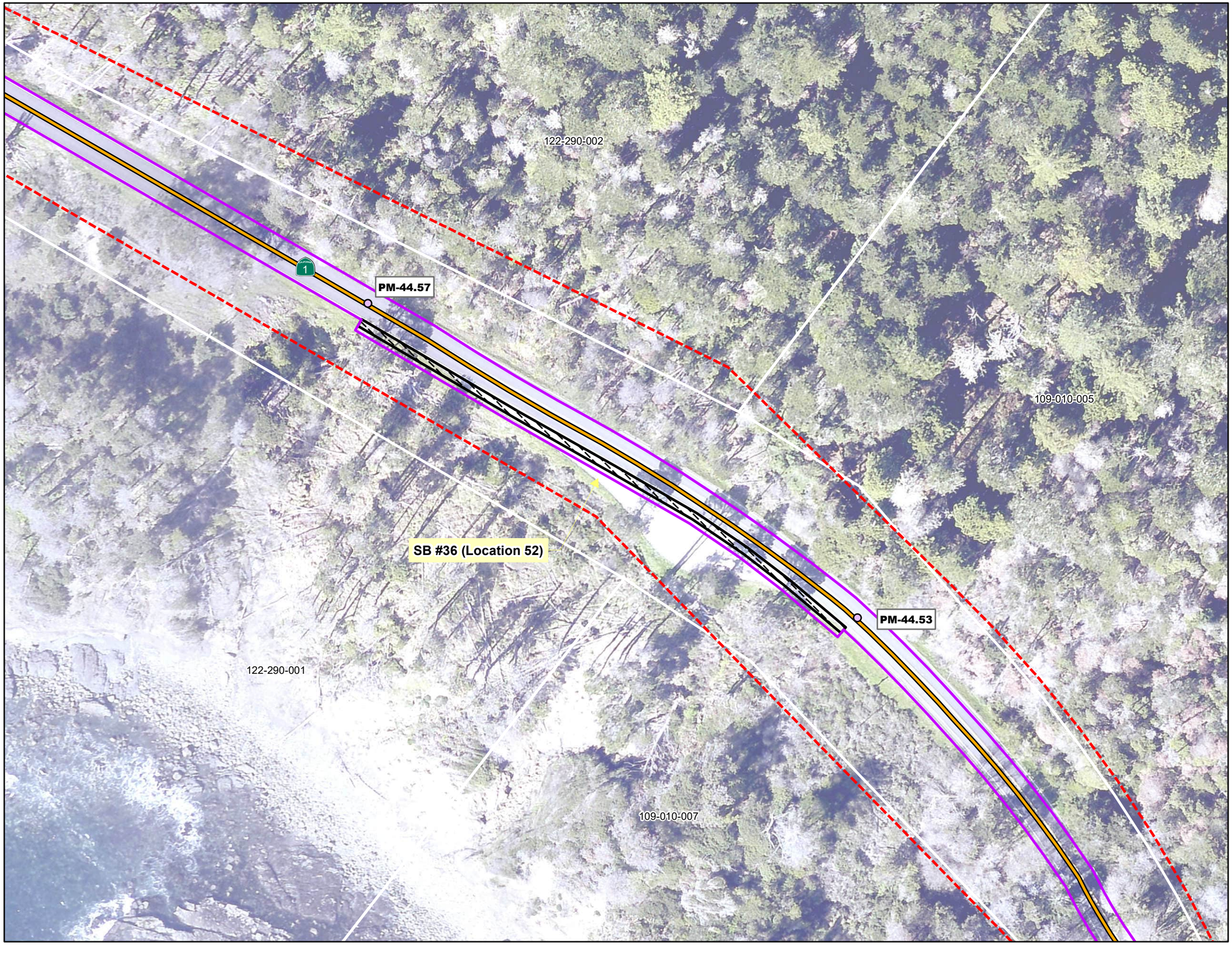
N

0 75 150
Feet

Caltrans

Figure 1-3
Map 44 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

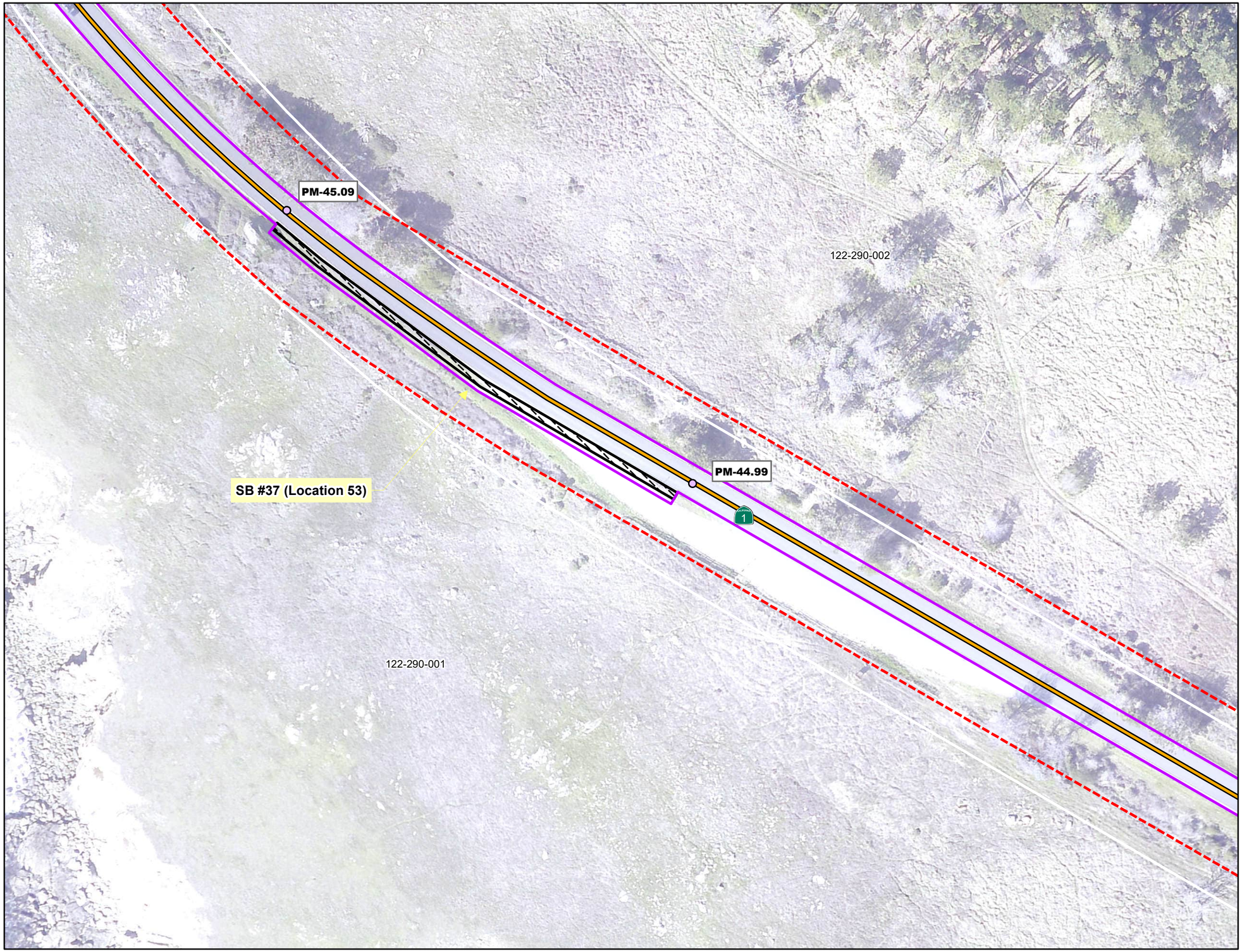
N

0 75 150
Feet

Caltrans

Figure 1-3
Map 45 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

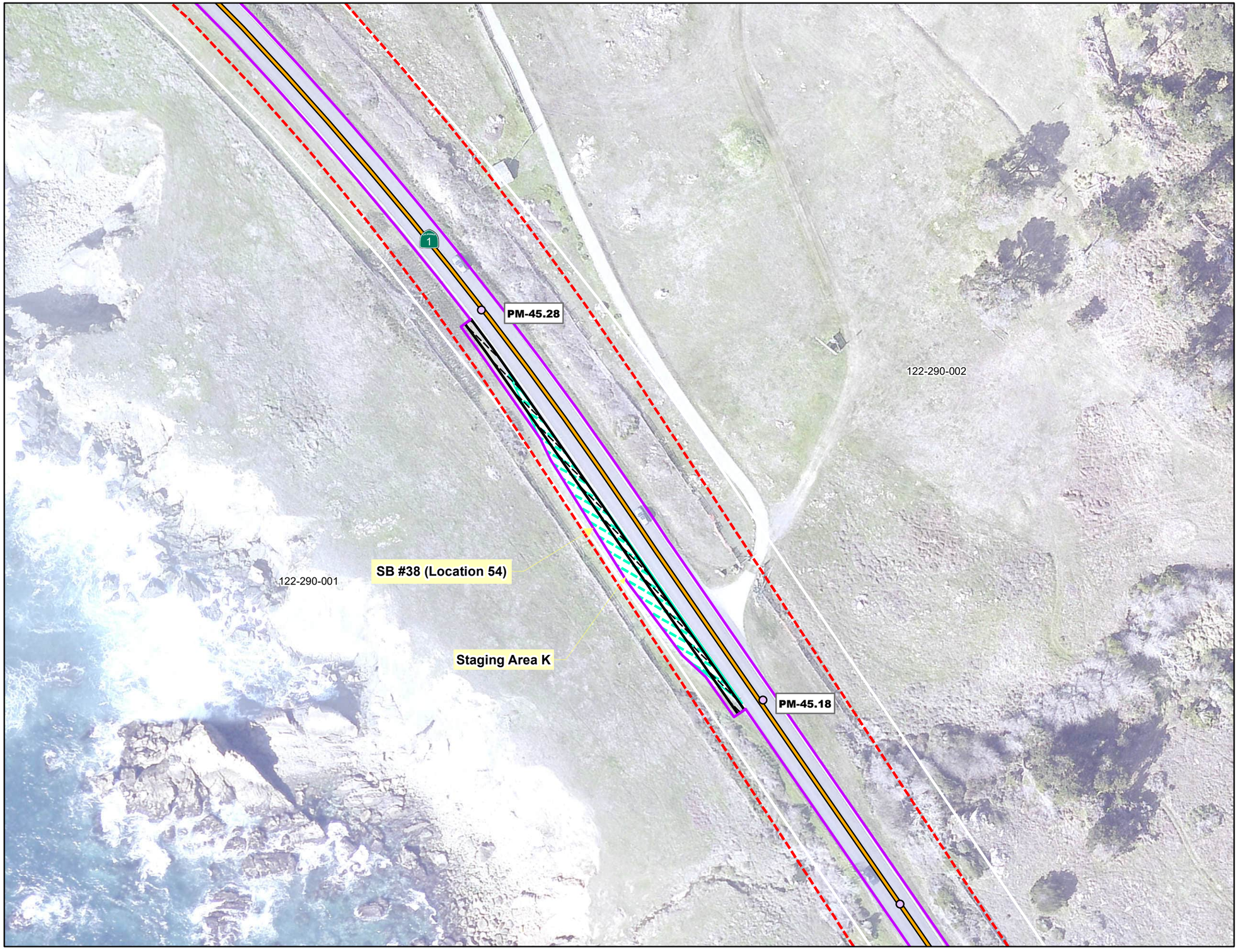
Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Figure 1-3
Map 46 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder
- Staging Area

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

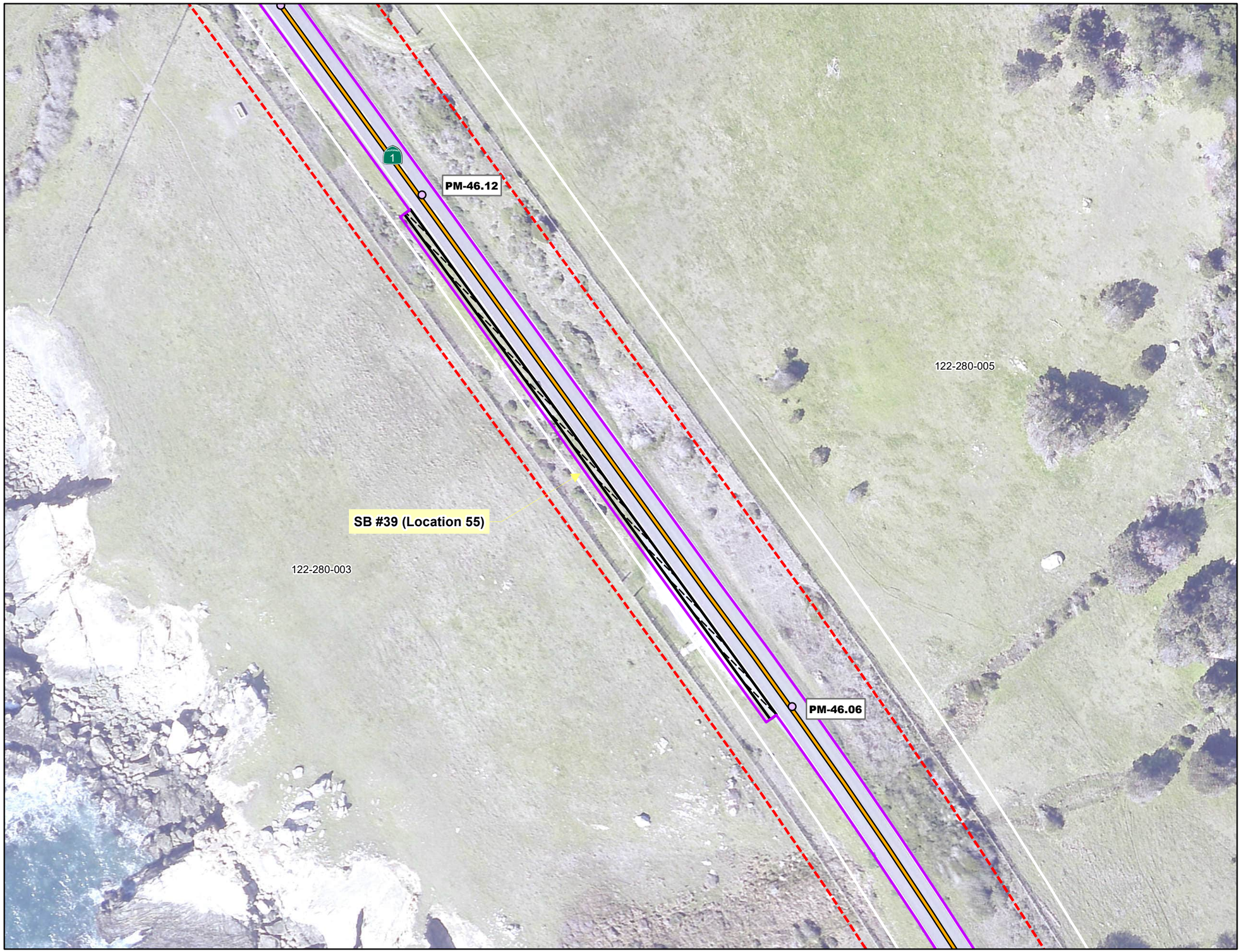
N

0 75 150
Feet

Caltrans

Figure 1-3
Map 47 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Figure 1-3
Map 48 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM

LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Caltrans

Figure 1-3
Map 49 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM

LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

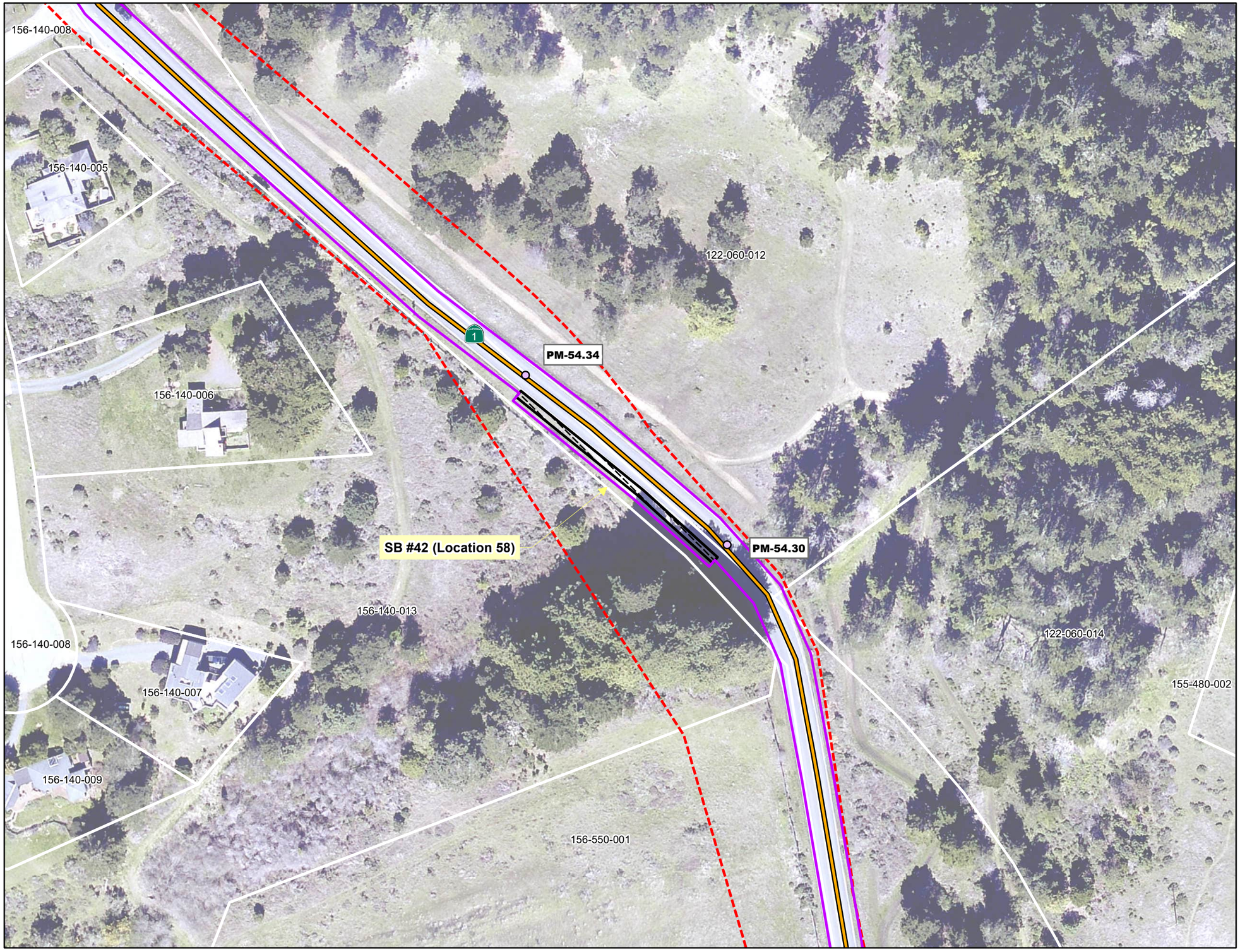
Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Figure 1-3
Map 50 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

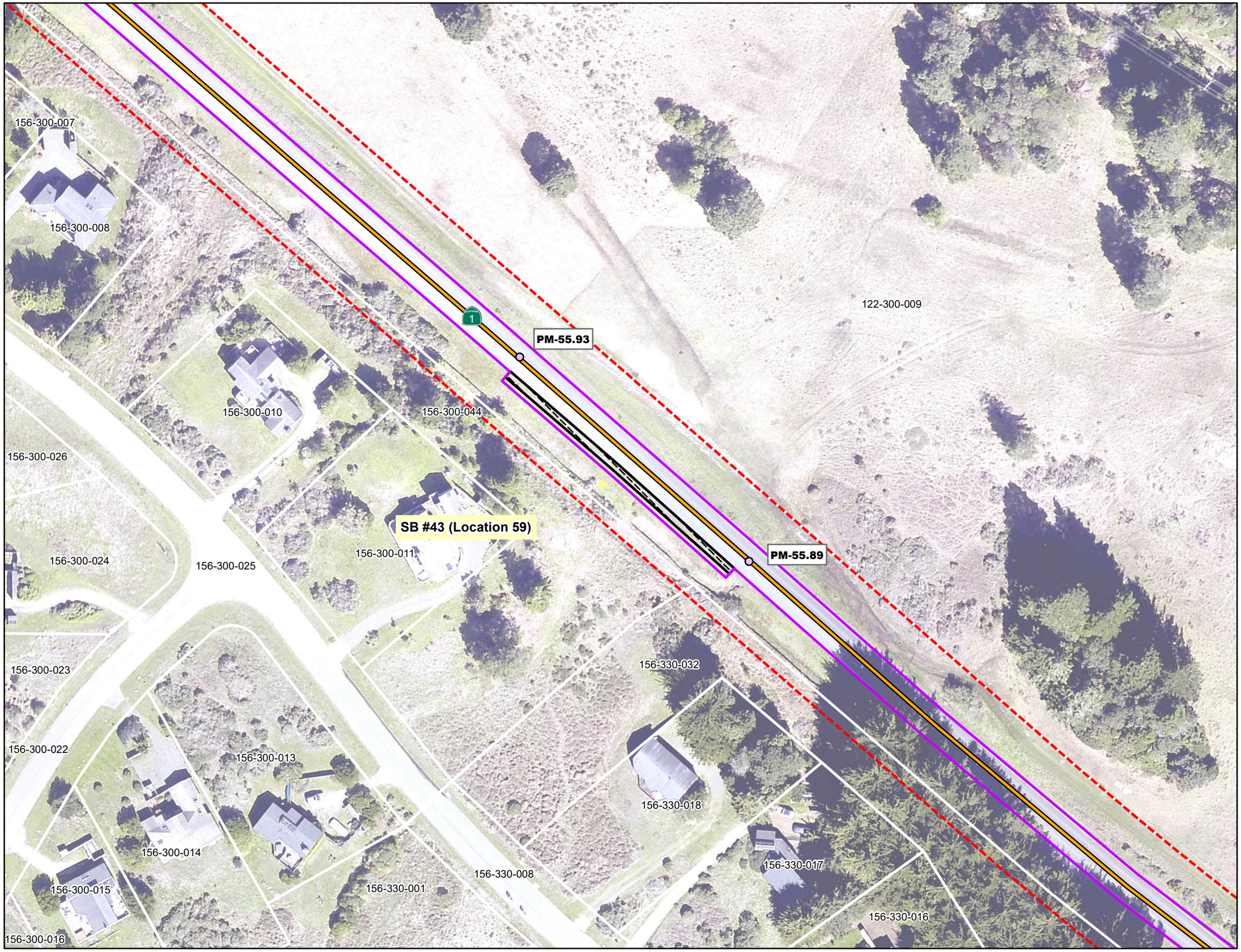
Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Figure 1-3
Map 51 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

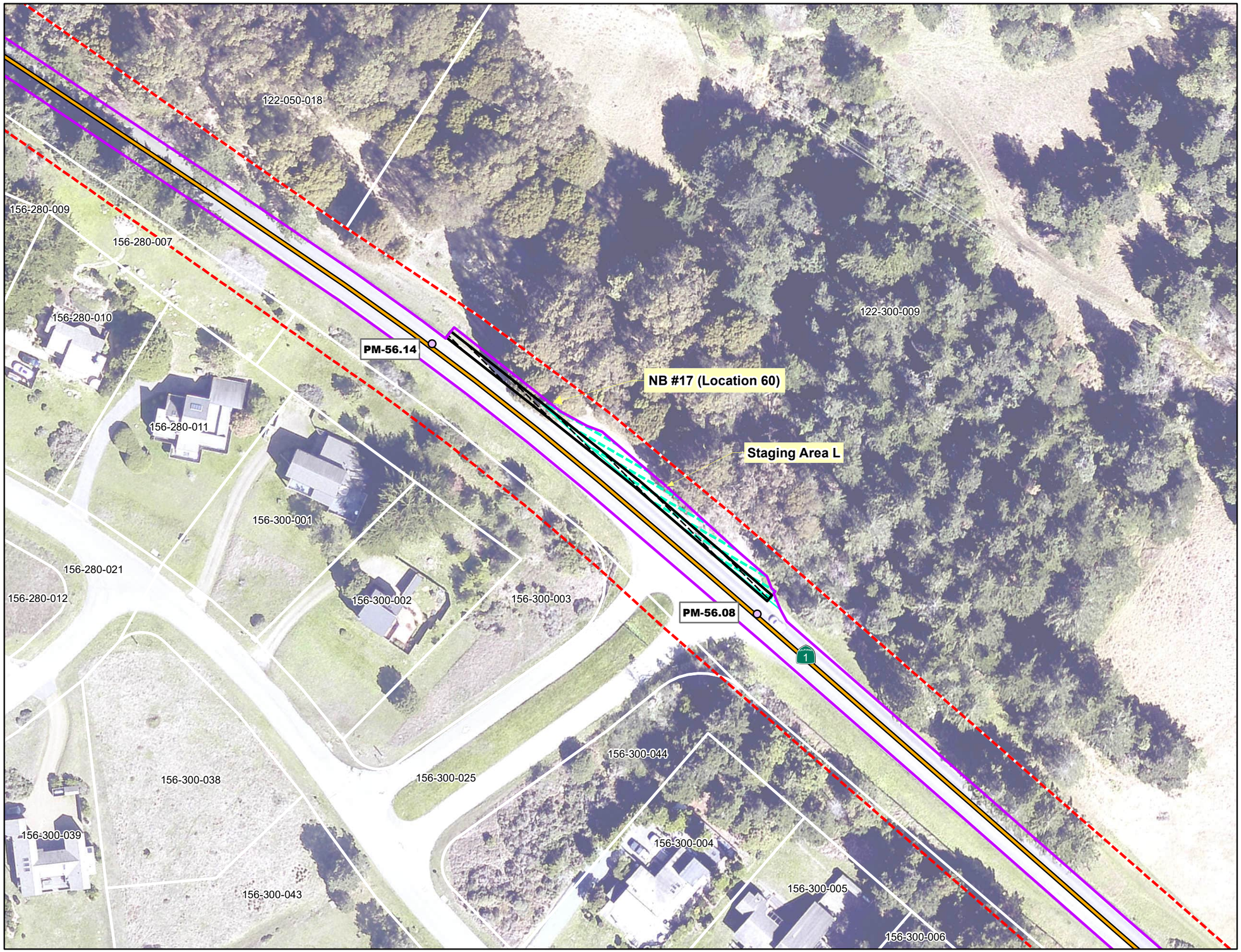
N

0 75 150
Feet

Caltrans

Figure 1-3
Map 52 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM



LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder
- Staging Area

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

N

0 75 150
Feet

Caltrans

Figure 1-3
Map 53 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM

LEGEND

- Post Mile
- Caltrans Right of Way
- Sonoma County Parcels
- Project Footprint
- Install Centerline Rumble Strip (Segment 4)
- Widen Shoulder

Disclaimer:
The geographic placement of the right of way boundaries within this map are approximate and subject to change, and Caltrans makes no representations or warranties as to their accuracy or fitness for any particular use. Therefore, the user should NOT rely upon this data to determine the actual State Right of Way or for other decision making purposes.

Imagery Source:
Sonoma County 2021

N

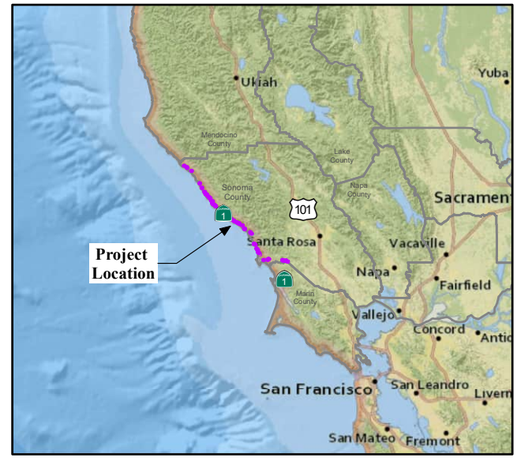
0 75 150
Feet

Caltrans

Figure 1-3
Map 54 of 54
Project Components
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG1-3_PROJECT_COMPONENETS_4G780.MXD CARCHER 1/4/2023 10:29:50 AM

SB #45 (Location 61)
NB #17 (Location 60)
Staging Area M
SB #43 (Location 59)
SB #42 (Location 58)
SB #41 (Location 57)
SB #40 (Location 56)
SB #39 (Location 55)
SB #38 (Location 54)
SB #37 (Location 53)
SB #36 (Location 52)
NB #16 (Location 51)
SB #35 (Location 50)
SB #34 (Location 49)
SB #33 (Location 48)
SB #32 (Location 47)
NB #15 (Location 46)
SB #31 (Location 45)
NB #14 (Location 44)
SB #30 (Location 43)
SB #29 (Location 42)
SB #28 (Location 41)
NB #12 (Location 38)
SB #26 (Location 37)
SB #25 (Location 36)
SB #24 (Location 35)
SB #23 (Location 34)
SB #20 (Location 30)
NB #10 (Location 29)
NB #09 (Location 28)
SB #19 (Location 27)
SB #18 (Location 26)
SB #17 (Location 25)
SB #16 (Location 24)
SB #15 (Location 23)
SB #13 (Location 20)
SB #12 (Location 19)
SB #11 (Location 18)
SB #10 (Location 17)
SB #08 (Location 15)
NB #07 (Location 13)
SB #05 (Location 11)
SB #04 (Location 10)
SB #03 (Location 9)
Staging Area L
Staging Area K
Staging Area J
Staging Area I
SB #22 (Location 33)
SB #21 (Location 32)
NB #11 (Location 31)
Staging Area H
Staging Area G
Staging Area F
Staging Area E
Staging Area D
Staging Area C
Staging Area B
Staging Area A
NB #02 (Location 2)
SB #01 (Location 3)
NB #04 (Location 5)
SB #02 (Location 6)
Jenner
Bodega Bay
Sebastopol
Healdsburg
Windsor
Cloverdale
Monte Rio
Guerneville
Occidental
Lake Sonoma



Legend

- Project Footprint

Project Sub Areas

- Sub Area 1
- Sub Area 2
- Sub Area 3
- Sub Area 4
- Local Responsibility Area (LRA)
- State Responsibility Area (SRA)

CDF Fire Hazard Severity Zones

- Moderate
- High
- Very High

Sources:
CAL FIRE-FRAP

N

0 4 8
Miles

Caltrans

FIGURE 3-1
Map 01 of 15
Fire Hazard Severity Zones
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2022\DED\OCT\FIG3-1_FIRE_HAZARD_SEVERITY_ZONES_OVERVIEW_4G780.MXD

Legend

- Project Footprint

Project Sub Areas

- Sub Area 1
- State Responsibility Area (SRA)

CDF Fire Hazard Severity Zones

- Moderate

Sources:
CAL FIRE-FRAP

N

0 1,000 2,000
Feet

Caltrans

FIGURE 3-1
Map 02 of 15
Fire Hazard Severity Zones
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG3-1_FIRE_HAZARD_SEVERITY_ZONES_MAPBOOK_4G780.MXD

Legend

- Project Footprint
- **Project Sub Areas**
- Sub Area 1
- State Responsibility Area (SRA)
- **CDF Fire Hazard Severity Zones**
- Moderate

Sources:
CAL FIRE-FRAP

N

0 1,000 2,000
Feet

Caltrans

FIGURE 3-1
Map 03 of 15
Fire Hazard Severity Zones
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG3-1_FIRE_HAZARD_SEVERITY_ZONES_MAPBOOK_4G780.MXD

Legend

- Project Footprint

Project Sub Areas

- Sub Area 2
- State Responsibility Area (SRA)

CDF Fire Hazard Severity Zones

- Moderate

Sources:
CAL FIRE-FRAP

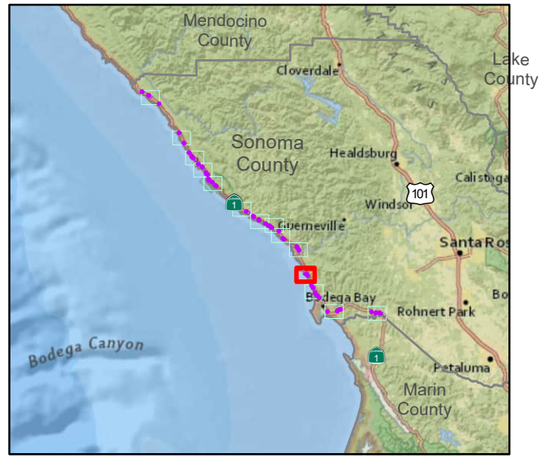
N

0 1,000 2,000
Feet

Caltrans

FIGURE 3-1
Map 04 of 15
Fire Hazard Severity Zones
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG3-1_FIRE_HAZARD_SEVERITY_ZONES_MAPBOOK_4G780.MXD



Legend

- Project Footprint

Project Sub Areas

- Sub Area 2
- State Responsibility Area (SRA)

CDF Fire Hazard Severity Zones

- Moderate
- Very High

Sources:
CAL FIRE-FRAP

N

0 1,000 2,000
Feet

Caltrans

FIGURE 3-1
Map 05 of 15
Fire Hazard Severity Zones
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG3-1_FIRE_HAZARD_SEVERITY_ZONES_MAPBOOK_4G780.MXD

Jenner

SB #16 (Location 24)

SB #15 (Location 23)

Legend

- Project Footprint

Project Sub Areas

- Sub Area 2
- Sub Area 3
- State Responsibility Area (SRA)

CDF Fire Hazard Severity Zones

- Moderate
- High
- Very High

Sources:
CAL FIRE-FRAP

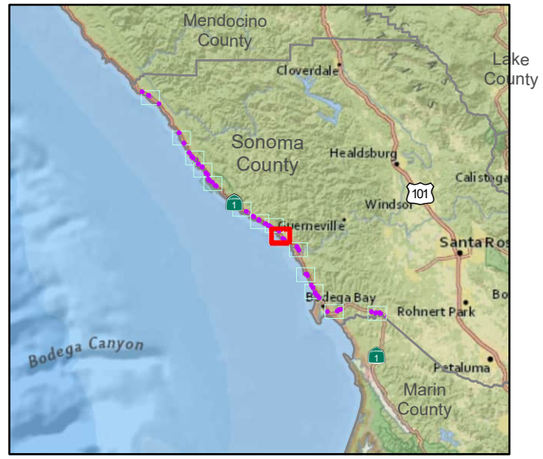
N

0 1,000 2,000
Feet

Caltrans

FIGURE 3-1
Map 06 of 15
Fire Hazard Severity Zones
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG3-1_FIRE_HAZARD_SEVERITY_ZONES_MAPBOOK_4G780.MXD



Legend

- Project Footprint

Project Sub Areas

- Sub Area 3
- State Responsibility Area (SRA)

CDF Fire Hazard Severity Zones

- Moderate
- High

Sources:
CAL FIRE-FRAP

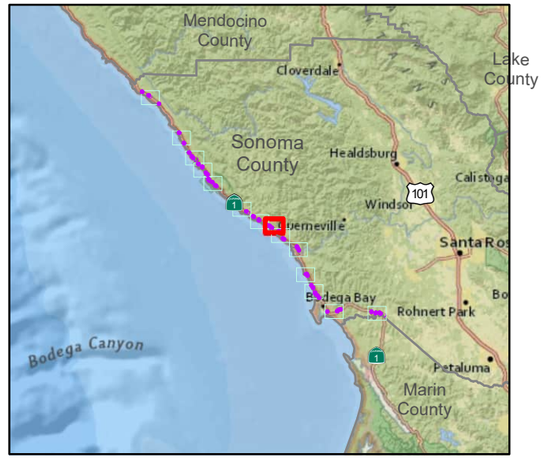
N

0 1,000 2,000
Feet

Caltrans

FIGURE 3-1
Map 07 of 15
Fire Hazard Severity Zones
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG3-1_FIRE_HAZARD_SEVERITY_ZONES_MAPBOOK_4G780.MXD



Legend

- Project Footprint

Project Sub Areas

- Sub Area 3
- State Responsibility Area (SRA)

CDF Fire Hazard Severity Zones

- Moderate
- High

Sources:
CAL FIRE-FRAP

N

0 1,000 2,000
Feet

Caltrans

FIGURE 3-1
Map 08 of 15
Fire Hazard Severity Zones
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG3-1_FIRE_HAZARD_SEVERITY_ZONES_MAPBOOK_4G780.MXD

Legend

- Project Footprint

Project Sub Areas

- Sub Area 3
- State Responsibility Area (SRA)

CDF Fire Hazard Severity Zones

- Moderate
- High

Sources:
CAL FIRE-FRAP

N

0 1,000 2,000
Feet

Caltrans

FIGURE 3-1
Map 09 of 15
Fire Hazard Severity Zones
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG3-1_FIRE_HAZARD_SEVERITY_ZONES_MAPBOOK_4G780.MXD

Legend

- Project Footprint

Project Sub Areas

- Sub Area 3
- Sub Area 4
- State Responsibility Area (SRA)

CDF Fire Hazard Severity Zones

- Moderate
- High
- Very High

Sources:
CAL FIRE-FRAP

N

0 1,000 2,000
Feet

Caltrans

FIGURE 3-1
Map 10 of 15
Fire Hazard Severity Zones
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG3-1_FIRE_HAZARD_SEVERITY_ZONES_MAPBOOK_4G780.MXD

Legend

- Project Footprint

Project Sub Areas

- Sub Area 4
- State Responsibility Area (SRA)

CDF Fire Hazard Severity Zones

- Moderate
- High
- Very High

Sources:
CAL FIRE-FRAP

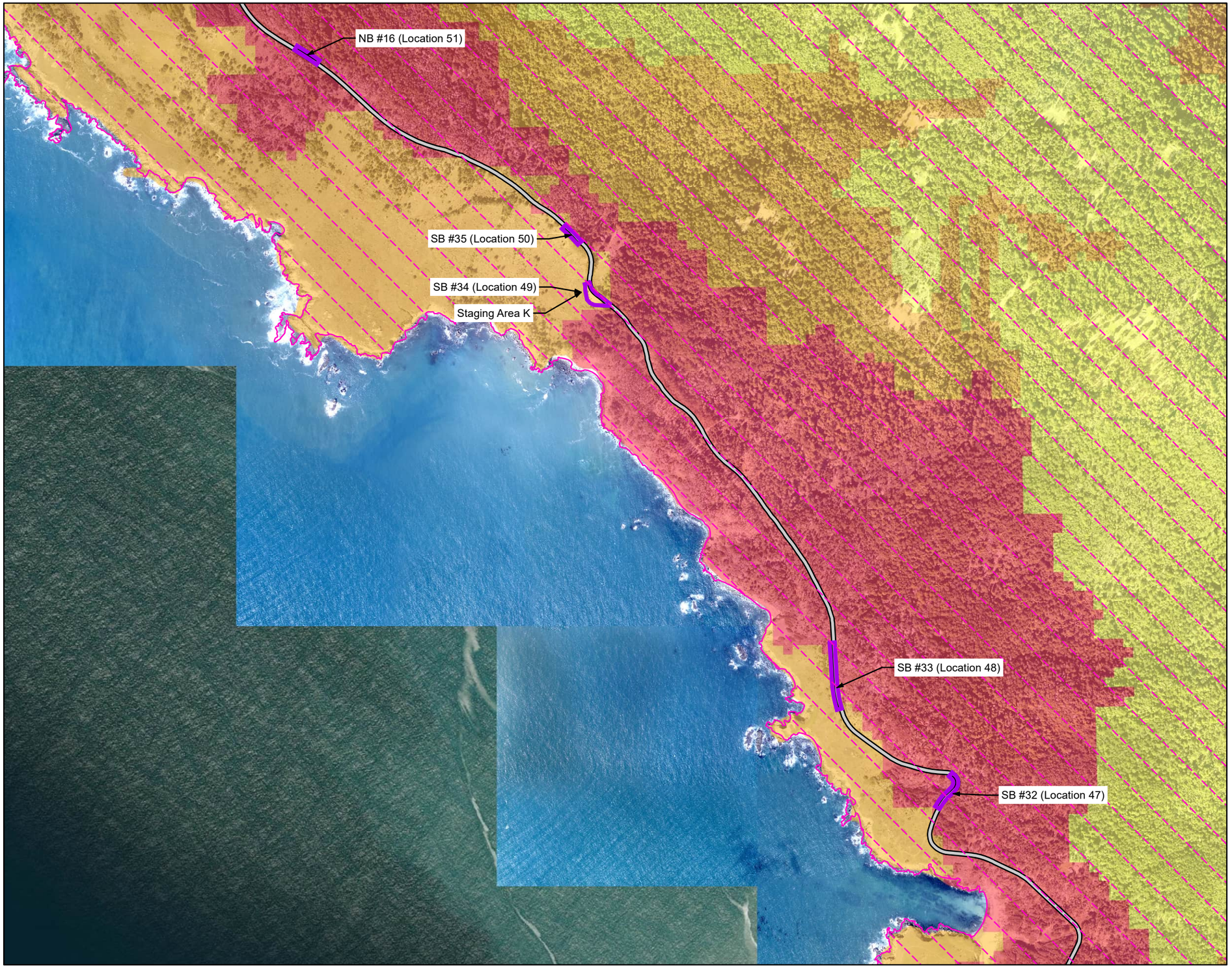
N

0 1,000 2,000
Feet

Caltrans

FIGURE 3-1
Map 11 of 15
Fire Hazard Severity Zones
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG3-1_FIRE_HAZARD_SEVERITY_ZONES_MAPBOOK_4G780.MXD



Legend

- Project Footprint

Project Sub Areas

- Sub Area 4
- State Responsibility Area (SRA)

CDF Fire Hazard Severity Zones

- Moderate
- High
- Very High

Sources:
CAL FIRE-FRAP

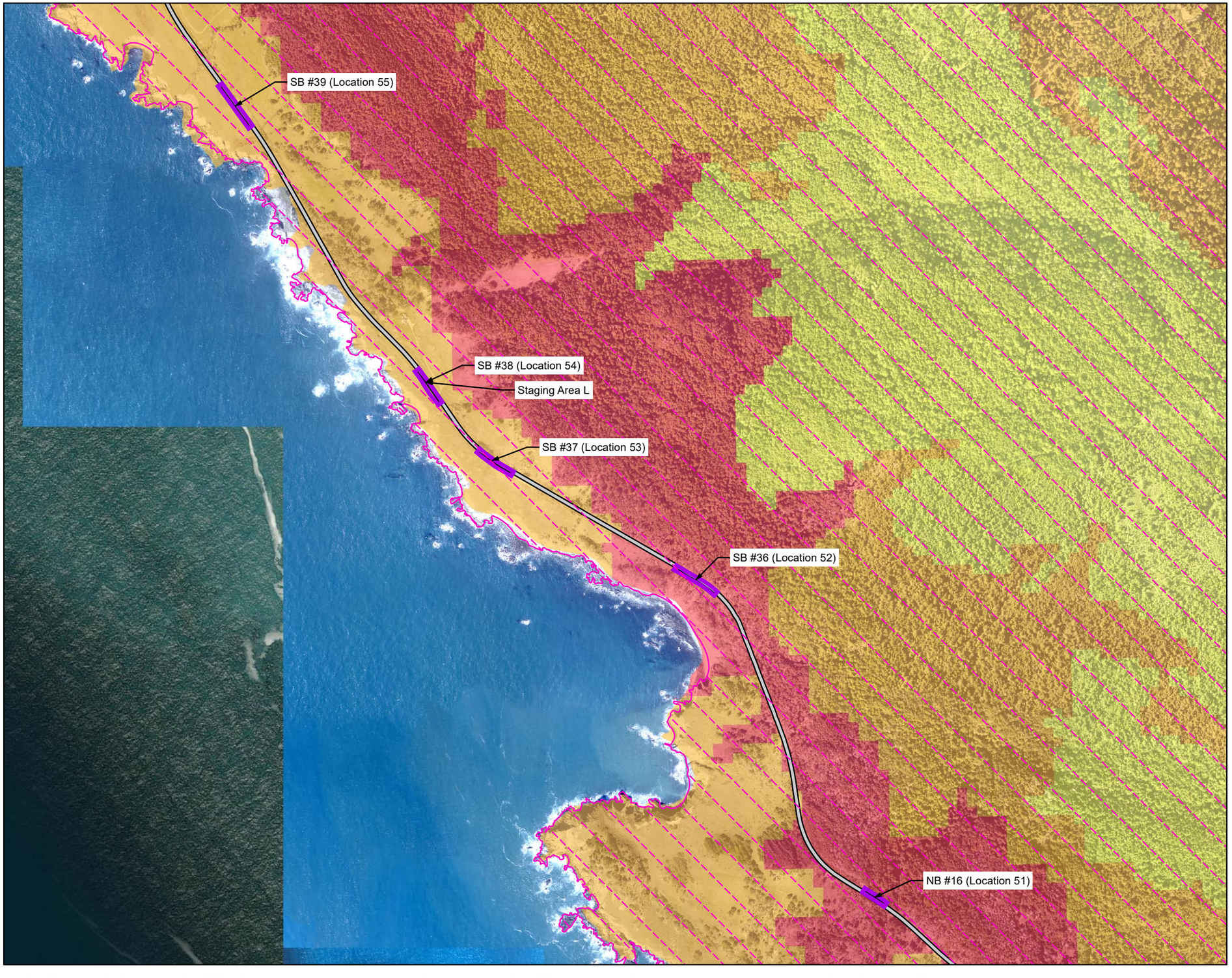
N

0 1,000 2,000
Feet

Caltrans

FIGURE 3-1
Map 12 of 15
Fire Hazard Severity Zones
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG3-1_FIRE_HAZARD_SEVERITY_ZONES_MAPBOOK_4G780.MXD



Legend

- Project Footprint

Project Sub Areas

- Sub Area 4
- State Responsibility Area (SRA)

CDF Fire Hazard Severity Zones

- Moderate
- High
- Very High

Sources:
CAL FIRE-FRAP

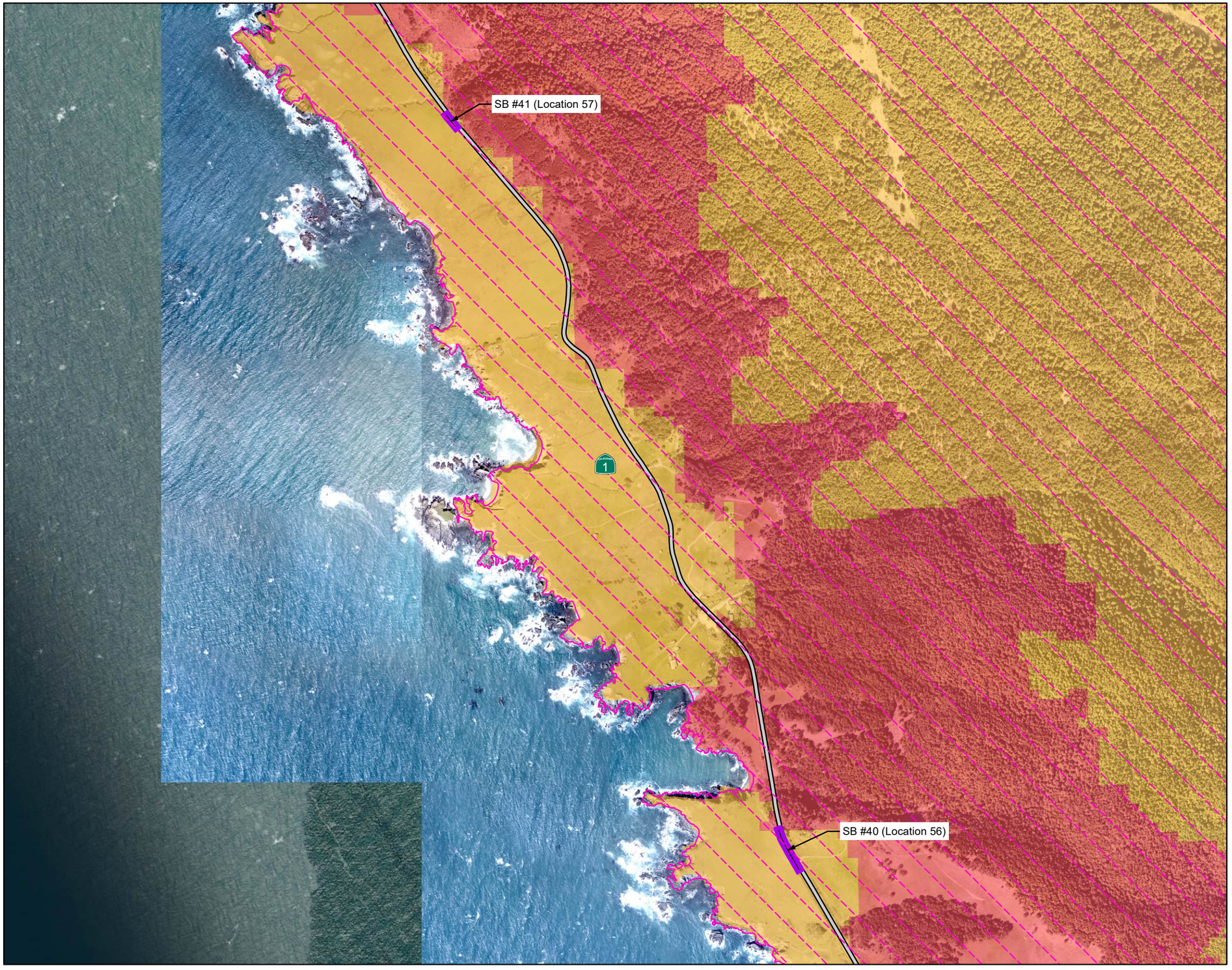
N

0 1,000 2,000
Feet

Caltrans

FIGURE 3-1
Map 13 of 15
Fire Hazard Severity Zones
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG3-1_FIRE_HAZARD_SEVERITY_ZONES_MAPBOOK_4G780.MXD



Legend

- Project Footprint

Project Sub Areas

- Sub Area 4
- State Responsibility Area (SRA)

CDF Fire Hazard Severity Zones

- High
- Very High

Sources:
CAL FIRE-FRAP

N

0 1,000 2,000
Feet

Caltrans

FIGURE 3-1
Map 14 of 15
Fire Hazard Severity Zones
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG3-1_FIRE_HAZARD_SEVERITY_ZONES_MAPBOOK_4G780.MXD

Legend

- Project Footprint

Project Sub Areas

- Sub Area 4
- State Responsibility Area (SRA)

CDF Fire Hazard Severity Zones

- Moderate
- High

Sources:
CAL FIRE-FRAP

N

0 1,000 2,000
Feet

Caltrans

FIGURE 3-1
Map 15 of 15
Fire Hazard Severity Zones
State Route 1 Centerline Rumble Strip Project
EA 04-4G780, SON-1-0.00/58.58
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\4G780_SON1_CENTERLINE_RUMBLE_STRIP\MAPFILES\REPORT\2023\DED\JAN\FIG3-1_FIRE_HAZARD_SEVERITY_ZONES_MAPBOOK_4G780.MXD

Appendix B Title VI Policy Statement

California Department of Transportation

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

September 2022

NON-DISCRIMINATION POLICY STATEMENT

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

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

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

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 639-6392 or visit the following web page: https://dot.ca.gov/programs/civil-rights/title-vi.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Civil Rights, at PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 879-6768 (TTY 711); or at Title.VI@dot.ca.gov.

TONY TAVARES
Director

Appendix C Summary of Project Features, and Avoidance and/or Minimization Measures

Project Features

- **PF-AES-1, Minimize Vegetation Impacts:** Minimize impacts to vegetation to the greatest extent possible. Vegetation to remain would be protected from construction-related activities by temporary fencing when vegetation is close to construction work or staging areas.

- **PF-AES-2, Reseeding Disturbed Areas:** Apply erosion control seeding and similar measures to all areas of disturbed soil.

- **PF-AQ-1, Dust Control Measures:** Implement dust control measures to minimize airborne dust and soil particles generated from construction-related activities, including watering or applying dust palliative to disturbed areas, preventing and promptly removing trackouts on SR 1 and other public roadways affected by construction traffic, and covering soils or construction materials or providing adequate freeboard (space from the top of the material to the top of the truck) during transport.

- **PF-AQ-2, Construction Vehicles and Equipment:** Maintain and tune the construction vehicles and equipment in accordance with manufacturer's specifications.

- **PF-AQ-3, Limit Idling:** Limit idling times either by shutting construction equipment off when not in use or reducing the maximum idling time to 5 minutes.

- **PF-BIO-1: Seasonal Avoidance**. The Project will develop temporary BMPs in compliance with Standard Specification 13-3.01C(3) and develop and deploy appropriate BMPs consistent with the Rain Event Action Plan at least 48 hours in advance of a forecasted storm that has a 50% probability of rainfall within 72 hours.

- **PF-BIO-2: Worker Environmental Awareness Training**. Prior to ground-disturbing activities, the Project Biologist will conduct an education program for all construction personnel. At a minimum, the training will include a description

of special-status species, migratory birds, and their habitats, how the species might be encountered within the Project area, an explanation of the status of these species and protection under the federal and state regulations, the measures to be implemented to conserve listed species and their habitats as they relate to the work site, boundaries within which construction may occur, and how to best avoid the incidental take of listed species. The field meeting will include topics on species identification, life history, descriptions, and habitat requirements during various life stages. Emphasis will be placed on the importance of the habitat and life stage requirements within the context of Project maps showing areas where PFs/AMMs are to be implemented. The program will include an explanation of applicable federal and state laws protecting endangered species as well as the importance of compliance with Caltrans and various resource agency conditions.

- **PF-BIO-3: Environmentally Sensitive Area Fencing.** Before starting construction, environmentally sensitive area (ESAs) (defined as areas containing sensitive habitats adjacent to or within construction work areas for which physical disturbance is not allowed) will be clearly delineated as needed using high visibility fencing. The ESA fencing will remain in place at each location until work at that location is complete and will prevent construction equipment or personnel from entering sensitive habitat areas. The ESA fencing also serves to delineate the Project footprint in which all construction activity is to occur. The final Project plans will depict the locations where ESA fencing will be installed and how it will be assembled/constructed. The special provisions in the bid solicitation package will clearly describe acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbing activities within ESAs. The ESA fencing will be removed at each location as necessary.

- **PF-BIO-4: Wildlife Exclusion Fencing**. Before starting construction, at the discretion of the Project Biologist, wildlife exclusion fencing (WEF) may be installed along the Project footprint perimeter in the areas where wildlife could enter the Project footprint. The final Project plans will depict the locations where WEF will be installed, and how it will be assembled/constructed. The special provisions in the bid solicitation package will clearly describe acceptable WEF fencing material and proper WEF installation and maintenance. The WEF will remain in place at each location until work at that location is complete and will be regularly inspected for stranded animals and fully maintained daily. The WEF will be removed following completion of construction activities.

- **PF-BIO-5: Stormwater Best Management Practices**. In accordance with Regional Water Quality Control Board requirements, a Stormwater Pollution Prevention Plan will be developed and erosion control BMPs implemented to minimize wind- or water-related erosion. The Caltrans Construction Site BMP Manual (Caltrans 2017) provides guidance for the inclusion of provisions in all construction contracts to protect sensitive areas and prevent and minimize stormwater and non-stormwater discharges. At a minimum, protective measures will include the following:

  a. Prohibiting discharge of pollutants from vehicle and equipment cleaning into storm drains or watercourses.

  b. Servicing vehicles and construction equipment, including fueling, cleaning, and maintenance at least 50 feet from aquatic habitat, unless separated by topographic or engineered drainage barrier.

  c. Collecting and disposing of concrete wastes and water from curing operations in appropriate washouts, located at least 50 feet from watercourses.

  d. Maintaining spill containment kits onsite at all times during construction operations and/or staging or fueling of equipment.

  e. Using water trucks and dust palliatives to control dust in unvegetated areas and covering temporary stockpiles when weather conditions require.

  f. Installing coir rolls or straw wattles along or at the base of slopes during construction to capture sediment. To prevent wildlife from becoming entangled or trapped in erosion control materials, plastic monofilament netting such as erosion control matting or similar material will not be used. Acceptable substitutes would include coconut coir matting or tackifying hydroseeding compounds.

  g. Protecting graded areas from erosion using a combination of silt fences, fiber rolls along toes of slopes or along edges of designated staging areas, and erosion control netting (jute or coir) as appropriate on sloped areas.

  h. Establishing permanent erosion control measures such as bio-filtration strips and swales to receive storm water discharges from the highway or other impervious surfaces to the maximum extent practicable.

- **PF-BIO-6: Construction Site Management Practices**. The following site restrictions will be implemented to avoid or minimize potential effects on listed species and their habitats:

  a. Enforcing a speed limit of 15 miles per hour in the Project footprint in unpaved and paved areas to reduce dust and excessive soil disturbance.

  b. Locating construction access, staging, storage, and parking areas within the Project footprint outside any designated ESA. Access routes, staging and storage areas, and contractor parking will be limited to the minimum necessary to construct the proposed Project. Routes and boundaries of roadwork will be clearly marked before initiating construction or grading.

  c. Certifying, to the maximum extent practicable, borrow material is nontoxic and weed-free.

  d. Enclosing food and food-related trash items in sealed trash containers and removing them from the site at the end of each day.

  e. Prohibiting pets from entering the Project footprint during construction.

  f. Prohibiting firearms within the Project site, except for those carried by authorized security personnel or local, state, or federal law enforcement officials.

  g. Maintaining equipment to prevent the leakage of vehicle fluids such as gasoline, oils, or solvents, and developing a Spill Response Plan. Hazardous materials such as fuels, oils, and solvents will be stored in sealable containers in a designated location that is at least 50 feet from aquatic habitats.

- **PF-BIO-7: Avoidance of Entrapment**. During construction, all excavated, steep-walled holes or trenches more than 1 foot deep will be covered at the close of each working day using plywood or similar materials or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. Pipes, culverts, or similar structures stored in the BSA overnight will be inspected before they are subsequently moved, capped, or buried.

- **PF-BIO-8: Vegetation Removal.** Vegetation that is growing in locations where shoulder widening will be placed will be cleared. Vegetation will be cleared only

where necessary and will be cut above soil level, except in areas that will be permanently impacted or excavated. This will allow plants that reproduce vegetatively to resprout after construction. Clearing and grubbing of woody vegetation will occur by hand or using construction equipment such as mowers, backhoes, and excavators. If clearing and grubbing occurs between February 1 and September 30, the Project Biologist will survey for nesting birds within the areas to be disturbed (including a perimeter buffer of 50 feet for passerines/migratory birds and 300 feet for raptors) before clearing activities begin. All nest avoidance requirements of the Migratory Bird Treaty Act and CDFW Code will be observed, such as establishing appropriate protection buffers around active nests until young have fledged. Cleared vegetation will be removed from the Project footprint to prevent attracting animals to the Project footprint.

- **PF-BIO-9: Pre-construction Nesting Bird Surveys and Nest Avoidance.** During the nesting season (February 1 through September 30), pre-construction surveys for nesting birds will be conducted by the Project Biologist no more than 72 hours prior to the start of construction activities. If work is to occur within 300 feet of active raptor nests or 50 feet of active non-game bird nests, a non-disturbance buffer will be established at a distance sufficient to minimize disturbance based on the nest location, topography, cover, the species' sensitivity to disturbance, and the intensity/type of potential disturbance. To minimize and avoid take of migratory birds, their nests, and their young, Caltrans will conduct vegetation and tree trimming outside of the bird nesting season, prior to construction. This work will be limited to vegetation and trees that are within the Project footprint. Additional bird nesting surveys will be required if work must occur during the nesting season.

- **PF-BIO-10: Replant, Reseed, and Restore Disturbed Areas**. Caltrans will restore temporarily disturbed areas to the maximum extent practicable. Exposed slopes and bare ground will be reseeded at the end of each construction season, with commercially available, locally appropriate native grass and shrub seeds to stabilize and prevent erosion. Where disturbance includes the removal of trees and woody shrubs, native species will be replanted.

- **PF-BIO-11: Reduce Spread of Invasive Species**. Caltrans will 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. In the event that noxious weeds are

disturbed or removed during construction-related activities, the contractor will be required to contain the plant material associated with these noxious weeds and dispose of it in a manner that will not promote the spread of the species. The contractor will be responsible for obtaining all permits, licenses, and environmental clearances for properly disposing of materials. Areas subject to noxious weed removal or disturbance will 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 footprint will be covered to the extent practicable with heavy black plastic solarization material until the end of the Project construction.

- **PF-CULT-1, Establish and Enforce ESAs:** Archeological ESAs will be delineated on the plans and described in the specifications Appropriate protective measures including demarcations with flags or high visibility spray paint, access restrictions, and monitoring of the ESA boundaries by a qualified archaeologist and local tribal representatives will be implemented during construction.

- **PF-CULT-2, Cease Work Upon Discovery of Cultural Resources:** Cease work if cultural resources are encountered during Project-related ground-disturbing activities, have a qualified archaeologist assess the significance of the resource, and implement appropriate avoidance or treatment measures, in coordination with local consulting tribes.

  If buried cultural materials are encountered during construction, work would be stopped until a qualified archaeologist can evaluate the nature and significance of the find. The need for archaeological and Native American monitoring during the remainder of the Project would be reevaluated by Caltrans Archaeologists and local consulting tribes as part of the treatment measure determination. The archaeologist would consult with appropriate Native American representatives in determining suitable treatment for unearthed cultural resources if the resources are Native American in nature.

- **PF-CULT-3, Stop Work Upon Discovery of Human Remains:** In accordance with the California Health and Safety Code, if human remains are uncovered during construction-related activities, all such activities within a 60-foot radius of the find will be halted immediately and the Project's designated representative will be notified. The contractor or lead person on the Project will immediately notify the OCRS Office Chief and/or the District Native American Coordinator

(DNAC). Once the remains are determined human, the lead person, OCRS Office Chief, or DNAC will contact the County Coroner and the NAHC. Although the Coroner has the ultimate responsibility to contact the NAHC, Caltrans OCRS contacts the NAHC at this time to provide information on the discovery and to assure the NAHC that appropriate action is being taken. The Coroner is required to examine the discovery of human remains within 48 hours of received notification of such a discovery on private or state lands (California Health and Safety Code Section 7050.5[b]). If the Coroner inspects the remains and determines that the remains are not Native American and/or determines they are a result of a wrongful death, the Coroner may take possession of the remains for further inquiry, release them to next of kin, or order the body to be reinterred. After the above action has been taken, work may resume on the Project. If the Coroner determines that the remains are those of a Native American, he or she must contact the NAHC by phone within 24 hours of making the determination (California Health and Safety Code Section 7050.5[c]). The Project's designated representative will be responsible for acting upon notification of discovery of Native American human remains, as identified in detail in California Public Resources Code Section 5097.9. The Project's designated representative and the professional archaeologist will contact the Most Likely Descendent (MLD), as determined by the NAHC, regarding the remains. The MLD, in cooperation with the property owner and Caltrans, will determine the ultimate disposition of the remains. The lead person ensures that the recommendations are followed. After the appropriate actions are taken, Project work may resume.

- **PF-ENERGY-1, Recycle Waste and Materials:** Recycle nonhazardous waste and excess construction materials to reduce disposal, if feasible.

- **PF-ENERGY-2, Solar Energy:** Use solar energy as the energy source for construction equipment, such as, but not limited to, signal boards, if feasible.

- **PF-HAZ-1, Caltrans Standard Specifications and Hazardous Waste Regulations:** The current Caltrans Standard Specifications Section 13-4, Job Site Management, would be implemented to prevent and control spills or leaks from construction equipment and from storage of fuels, paints, cleaners, solvents, and lubricants. Handling and management of hazardous materials would comply with the current Caltrans Standard Specification Section 14-11, Hazardous Waste and Contamination, which outlines handling, storing, and disposing of hazardous waste.

- **PF-HAZ-2, Soil Investigation:** A soil investigation for metals, primarily lead, and other contaminants of concern (i.e., petroleum hydrocarbons and volatile organic compounds) would be completed during the Project's design phase to characterize and profile the soil to be encountered by the construction of the Project. Depending upon the findings of the site investigation, appropriate hazardous waste management special provisions would be prepared and included in the Project specifications.

- **PF-HYD-1, Implementation of Construction Site Best Management Practices:** BMPs would be included in the final Project plans and specifications to comply with the conditions of the Caltrans National Pollutant Discharge Elimination System permit. Construction site BMPs for stormwater may include, but are not limited to, the following:

    - Construction tracking control practices
    - Job site management
    - Sediment control (fiber rolls and silt fencing)
    - Waste management and construction materials pollution control
    - Construction materials stockpile management
    - Dust and wind erosion controls
    - Drainage inlet protection
    - Non-stormwater management
    - Water quality monitoring

- **PF-HYD-2, Stormwater Pollution Prevention Plan and Job Site Management:** A SWPPP would be prepared by the contractor and approved by Caltrans, pursuant to the 2018 Caltrans Standard Specifications Section 13-3, Stormwater Pollution Prevention Plan, and the Caltrans SWPPP Preparation Manual. In addition to the SWPPP, job site management work specifications pursuant to the 2018 Caltrans Standard Specifications Section 13-4, Job Site Management, would be implemented prior to the beginning of construction.

- **PF-TRANS-1, Transportation Management Plan:** A TMP would be prepared by Caltrans prior to the beginning of construction and in consultation with the appropriate agencies to aid in coordinating and providing further safety measures for those accessing the Project corridor during construction. The TMP would identify traffic delays and alternative routes for emergency and medical vehicles associated with essential services, thereby avoiding or minimizing short-term,

localized traffic congestions and delays. Notifications and instructions for rapid response or evacuation in the event of an emergency would be provided.

Avoidance and Minimization Measures

- **AMM-AES-1, Selection of Staging Areas:** Ensure that the establishment of staging areas would not require the removal of any but weedy nonnative vegetation or cause the compaction of any tree roots. Staging areas would be located such that they do not block views of the ocean whenever feasible.

- **AMM-AES-2, Comply with Sonoma State Route 1 Repair Guidelines:** The design and construction of the Project would comply with all applicable provisions of the Guidelines, as confirmed by the Office of Landscape Architecture and the Office of Environmental Analysis.

- **AMM-AES-3, Selection of Materials:** In conjunction with the Office of Landscape Architecture, select materials and Project components appropriate for the visual character of the location and to maintain corridor consistency.

- **AMM-BIO-1: Restoration (Replant, Reseed, and Restore Disturbed Areas).** Restoration of temporary disturbance areas, including ESHA, will be accomplished through onsite revegetation. Restoration of temporary impact areas will occur within the same season they are disturbed so that the duration of disturbance at each location will not exceed 12 months through a non-standard edit to the Erosion Control General Specifications.

  Restoration of temporarily disturbed areas will be performed at a 1:1 ratio. At the end of each construction season, exposed slopes and bare ground will be reseeded with native grasses and shrubs to stabilize and prevent erosion.

  Native trees removed from riparian or other habitats or within the CDFW jurisdiction will be replanted following construction.

- **AMM-BIO-2: Designation of Special-status Plant Populations.** In conjunction with pre-construction survey AMMs, additional focused species checks and mapping of any observed populations of special-status plants within the BSA will be performed the season prior to construction to delineate the current limits of these populations prior to construction. These areas will be denoted as ESA and be avoided as feasible.

If avoidance of mapped populations within the Project footprint is not possible, the Caltrans Biologist will consult with appropriate agencies on suitable salvage, propagation, or relocation protocols. If avoidance is not possible, a special-status plant restoration plan will be prepared for agency review prior to special-status plant salvage or restoration. The special-status plant restoration plan will include information on performance criteria, monitoring requirements, and reporting.

- **AMM-BIO-3: Biological Monitoring**. The Caltrans biological monitor will be present during construction activities where take of a listed species could occur. Through communication with the Resident Engineer or designee, the biological monitor may stop work if deemed necessary for any reason to protect listed species and will advise the Resident Engineer or designee on how to proceed accordingly.

- **AMM-BIO-4: Pre-construction CRLF Surveys.** Visual encounter surveys will be conducted by the Caltrans biological monitor immediately before ground-disturbing activities. Suitable non-breeding aquatic and upland habitat within the Project footprint, including refugia habitat such as under shrubs, downed logs, small woody debris, and burrows will be inspected. If a CRLF is observed, the individual will be evaluated and relocated by the biological monitor in accordance with the observation and handling protocol outlined under Item 4. Fossorial mammal burrows will be inspected for signs of frog usage, to the extent practicable. If it is determined that a burrow may be occupied by a CRLF, the Resident Engineer and USFWS will be contacted, and work within the vicinity of the burrow will stopped.

- **AMM-BIO-5: Stop Work for CRLF Observation.** If the CRLF is encountered in the Project footprint, work within 50 feet of the animal will cease immediately and the Resident Engineer and approved biologist will be notified. Based on the professional judgment of the approved biologist, if Project activities can be conducted without harming or injuring the animal, it may be left at the location of discovery and monitored by the approved biologist. Project personnel will be notified of the finding, and at no time will work occur within 50 feet of the animal without an approved biologist present.

- **AMM-BIO-6: Pre-construction NSO Surveys.** A focused pre-construction non-protocol survey will be conducted during the NSO nesting season in areas of potential NSO habitat. The NSO-focused surveys will be conducted by a qualified

biologist within 165 feet of suitable NSO habitat. This includes areas with observed suitable habitat and areas with proximal occurrence data, including widening Locations 27, 29, 30, 33, 35 to 38, and 41 to 61; associated staging areas; and rumble strip segments 3 and 4. If surveys are not completed, work at these un-surveyed locations would be restricted to between August 1 and February 28, unless surveys determine the suitable habitat or site is unoccupied or the owls are not nesting.

For Project work within 165 feet of a known nest site or nesting habitat that cannot be scheduled outside of the nesting season, and where the 165-foot buffer cannot be maintained, reduced buffers should be implemented based on "Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California" (USFWS 2006).

- **AMM-BIO-7: Occupied NSO Habitat.** If NSO surveys (using the USFWS' 2012 survey protocol [USFWS 2012]) detect an active NSO nesting site within 165 feet of the Project footprint, or Caltrans biologist presumes spotted owl occupancy without conducting surveys, Caltrans Resident Engineer will adhere to the following measures:

  a. The start of construction within 165 feet of the NSO nest will be delayed until the young have fledged. NSO young generally leave the nest (that is, fledge) in late May or June. The NSO nest will be monitored by a USFWS-approved biologist to document when the young have left the nest and construction can start.

  b. To minimize noise and visual disturbances generated from the proposed Project to the degree possible, all construction equipment, fixed or mobile, will be fitted with properly operating and maintained mufflers consistent with manufacturers' standards. Additionally:

     i. No proposed activity generating sound levels 20 or more decibels (dB) above ambient sound levels or with maximum sound levels (ambient sound level plus activity-generated sound level) above 90 dB (excluding vehicle backup alarms) may occur within suitable NSO nesting or roosting habitat during most of the nesting season (February 1 to July 9) (USFWS 2014). These above-ambient sound level restrictions will be lifted after July 31, after which the USFWS

considers the above-ambient sound levels as having "no effect" on nesting NSO and dependent young.

ii. No human activities will occur within a visual line of sight of 131 feet or less from any known NSO nest locations within the Project footprint (USFWS 2014).

- **AMM-BIO-8: Focused MAMU Surveys.** MAMU-focused non-protocol surveys will be conducted by a qualified biologist at all Project locations that are within 0.25 mile of suitable MAMU habitat (Locations 29, 30, 33, 41 through 44, 47, 49 through 55, and 58, and rumble strip segments 3 and 4). If surveys are not completed, work at these locations would be restricted to between August 1 and February 28. For Project work within 0.25 mile of a known MAMU nest site that cannot be scheduled outside of the nesting season, reduced buffers should be implemented based on "Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California" (USFWS 2006).

- **AMM-BIO-9: MAMU Habitat.** If MAMU surveys (using the USFWS's survey protocol [USFWS 2014]) determine that the work area is occupied by nesting MAMU, or Project Biologist presumes MAMU occupancy without conducting surveys, Caltrans Resident Engineer will adhere to the following:

  a. Vegetation Removal or Alteration:

     i. No potential MAMU nest trees will be removed during the nesting season (March 24 to September 15),

     However, potential suitable MAMU habitat may be removed or altered outside the nesting season (September 16 to March 23).

     ii. Caltrans Biologist shall coordinate with USFWS to determine whether proposed habitat removal within designated critical habitat would constitute an adverse impact during the design phase.

  b. Auditory or Visual Disturbance:

     i. No proposed activity generating sound levels 20 dB or more above ambient sound levels or with maximum sound levels (ambient sound level plus activity-generated sound level) above 90 dB (excluding vehicle backup alarms) may occur within 0.25 mile of suitable MAMU

nesting habitat as determined by the Project Biologist from March 24 to August 5 (USFWS 2014).

ii. Between August 6 and September 30 (end of MAMU nesting season) of any year, Project activities adjacent to suitable nesting habitat that will generate sound levels equal to or greater than 10 dB above ambient sound levels will observe a daily work window beginning 2 hours after sunrise and ending 2 hours before sunset. However, preparation work that does not generate noise above ambient sound levels, including street sweeping and manual removal of pavement markers, can occur during all hours.

iii. No human activities will occur within the visual line of sight of 131 feet or less from an active MAMU nest from March to August (USFWS 2006).

If non-protocol surveys determine that all suitable MAMU nesting habitat within the Project footprint is considered unoccupied, suitable nesting habitat may be removed or altered without seasonal restrictions. The removal of a few small trees and shrubs would be exempt from this requirement.

- **AMM-BIO-10: SNPL Seasonal Avoidance.** At Location 15, staging area E, and rumble strip segment 2, which are near suitable habitat for the SNPL, no construction activities will be performed during the snowy plover nesting season, March 1 through September 14. A no-disturbance buffer of 130 feet from suitable habitat for SNPL will be implemented outside the nesting season, September 15 through February 28.

- **AMM-BIO-11: Pre-construction SNPL Surveys.** A USFWS-approved biologist will conduct pre-construction clearance surveys for snowy plover prior to work at Location 15 and staging area E. At least two surveys will be conducted at those locations: one survey will be between 14 and 3 calendar days prior to work starting, and another will be within 3 calendar days prior to work starting. Surveys will be conducted along the beach area (on foot within accessible areas or using binoculars) within a 500-foot radius of the Project footprint. Tidal phase, weather, wind speeds, and visibility will be recorded during each survey. Surveyors will document observations and banded birds but will not approach a bird on a nest or an adult with chicks, or female head-bobbing, a male tail-dragging, birds copulating, nest scraping, birds performing a broken wing display, or an adult

with chicks. Positive identifications should be reported to USFWS and State Parks within 24 hours.

- **AMM-BIO-12: Pre-construction Survey for *Viola adunca*.** A pre-construction survey for *Viola adunca* will be conducted in the early spring (late February/early March), referencing phenology trends observed at Fort Ross or other nearby reference populations. If *Viola adunca* are found in the work area, they will be flagged for avoidance with ESA fencing in coordination with the Project Biologist and Resident Engineer.

- **AMM-BIO-13: Pre-construction WPT Surveys.** An approved biologist will conduct pre-construction surveys for WPT immediately before ground-disturbing activities in areas identified as suitable WPT habitat within the Project footprint. If WPT is found within the Project footprint and at risk of harm, then it will be relocated by an approved biologist outside of the Project footprint.

- **AMM-BIO-14: Pre-Construction Surveys for Bats**. Prior to the start of work at each location, a qualified biologist will conduct a visual survey of the area for bat species. Any bats observed in the BSA should be allowed to leave on its own.

- **AMM-BIO-15: Bat Surveys Prior to Vegetation Removal.** A survey by a qualified bat biologist will be conducted prior to vegetation removal to determine if two-phase tree removal methods are appropriate for any trees scheduled for removal, or if a biological monitor should be required to be present during tree removal. The qualified biologist should inspect all trees marked for removal for bat roost habitat (e.g., crevice and foliage habitat types).

- **AMM-BIO-16: Pre-construction Surveys for Sonoma Tree Vole.** Before the start of construction, a qualified biologist will conduct a survey of the Project work areas and a 30-foot buffer beyond the Project footprint to determine the location of STV nests. Any nests detected during the surveys will be recorded and mapped in relation to the Project footprint. In addition, the biologist will evaluate any signs of current activity. A 30-foot equipment exclusion buffer will be established around nests that can be avoided; within such buffers, all vegetation will be retained, and nests will remain undisturbed.

- **AMM-BIO-17: Impacts to ESHAs.** Temporary impacts to ESHAs would be mitigated at a ratio of at least 1:1. Permanent impacts to ESHAs and aquatic resources would be mitigated at a ratio of at least 3:1. Impacts to ESHAs,

mitigation ratios, and appropriate compensation would be confirmed with the appropriate agencies during the design phase.

- **AMM-BIO-18: Tree Replacements.** The trees removed for the Project would be replaced or compensated via an in-lieu fee. Appropriate tree replacement locations or in-lieu fee compensation would be determined during the design phase and in consultation with the appropriate agencies.

- **AMM-BIO-19: Impacts to Waters**. Temporarily impacted wetland and other waters would be restored and revegetated to mitigate impacts to habitat functionality. Permanent impacts would be mitigated at a ratio of at least 1:1. Impacts to waters, mitigation ratios, and appropriate compensation would be confirmed with the appropriate agencies during the permitting process.

- **AMM-NOISE-1, Construction Noise Levels:** The following measures would be implemented to reduce noise levels during construction where feasible:

    - Any operation exceeding 86 dBA would not be allowed at nighttime from 9:00 p.m. to 6 a.m.
    - Public outreach would be required throughout the Project to update residents, businesses, and others regarding upcoming construction-related activities and Project schedule.
    - Schedule noisy operations within the same time frame where feasible. The total noise level would not be significantly greater than the level produced if operations are performed separately.
    - Avoid unnecessary idling of internal combustion engines within 100 feet of sensitive receptors.
    - Locate all stationary noise-generating construction equipment as far as practical from noise-sensitive receptors or provide baffled housing or sound aprons for equipment when sensitive receptors adjoin or are near a Project construction area.
    - Equip all internal combustion engine driven equipment with manufacturer recommended intake and exhaust mufflers that are in good condition and appropriate for the equipment.
    - Utilize “quiet” air compressors and other “quiet” equipment where such technology exists.

  - No construction equipment would be delivered and dropped off before 6:00 a.m.
  - Maintain all internal combustion engines properly to minimize noise generation.

- **AMM-TRANS-1, Coordinate Construction Schedules:** Caltrans will contact Sonoma County Regional Parks as construction of the Project approaches, to ensure Sonoma County Regional Parks can review and provide input on the Caltrans improvement plans during the design phase, and to ensure Sonoma County Regional Parks and Caltrans can coordinate construction activities if overlap exists between the Project and Sonoma County Regional Parks efforts related to the North Coast Trails Project.

- **AMM-TRANS-2, Bicycle-Related Signage:** During the design phase, Caltrans will evaluate bicycle-related signage in areas where the shoulder tapers and narrows again where bicyclists may be re-entering the lane from the widened shoulder.

- **AMM-UTIL-1, Utility Notifications:** During design phase, Caltrans would coordinate with all affected utility companies regarding the construction schedule for the Project so that relocations can be conducted by each utility company as necessary prior to the start of construction.

Appendix D List of Technical Studies and References

Association of Bay Area Governments and Metropolitan Transportation Commission (ABAG and MTC). 2021. *Plan Bay Area 2050*. October. https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf. Accessed October 4, 2022

Blake, M.C., Graymer R.W., and Stamski, R.E. 2002a. *Geologic map and map database of Western Sonoma, Northernmost Marin, Southernmost Mendocino Counties, California.* U.S. Geological Survey Miscellaneous Field Studies Map MF-2402, version 1.0, 1 sheet, scale 1:125,000. https://pubs.usgs.gov/mf/2002/2402/. Accessed October 2022.

Blake, M.C., Graymer R.W., and Stamski, R.E. 2002b. *Geologic map and map database of Western Sonoma, Northernmost Marin, Southernmost Mendocino Counties, California.* U.S. Geological Survey. Pamphlet to accompany Miscellaneous Field Studies Map MF-2402, version 1.0, 45p. https://pubs.usgs.gov/mf/2002/2402/mf2402g.pdf. Accessed October 2022.

Bryant, W.A., and Lundberg, M., compilers, 2002. Fault number 1b, San Andreas fault zone, North Coast section, in Quaternary fault and fold database of the United States: U.S. Geological Survey website, https://earthquakes.usgs.gov/hazards/qfaults. Accessed October 2022.

California Air Resources Board (CARB). 2019. Summaries of Historical Area Designations for State Standards. https://ww2.arb.ca.gov/our-work/programs/state-and-federal-area-designations/state-area-designations/summary-tables. Accessed October 4, 2022.

California Coastal Conservancy. 2019. *California Coastal Trail.* https://scc.ca.gov/projects/california-coastal-trail/. Accessed November 15, 2022.

California Department of Conservation. 2016. *California Important Farmland Finder*. https://maps.conservation.ca.gov/dlrp/ciff/. Accessed October 5, 2022.

California Department of Conservation. 2019. *Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency*. https://www.conservation.ca.gov/dlrp/fmmp/Pages/Sonoma.aspx. Accessed October 5, 2022.

California Department of Fish and Wildlife (CDFW). 2022. California Natural Diversity Database. RareFind Version 5.0. Biogeographic Data Branch. Sacramento, California.

California Geological Survey (CGS). 2022a. *California Tsunami Maps and Data.* https://www.conservation.ca.gov/cgs/tsunami/maps. Accessed October 2022.

California Geological Survey (CGS). 2022b. *Earthquake Zones of Required Investigation.* https://maps.conservation.ca.gov/cgs/EQZApp/. Accessed October 2022.

California Geological Survey (CGS). 2022c. *Site Investigation Reports received by the Alquist-Priolo Earthquake Fault Evaluation and Zoning Program, 1974-present.* Quadrangles: Gualala, Stewarts Point, Plantation, Fort Ross, Arched Rock, Duncans Mills, Bodega Head, and Valley Ford. https://maps.conservation.ca.gov/cgs/informationwarehouse/. Accessed October 2022.

California Department of Transportation (Caltrans). 2001. *Director's Policy 22 Context Sensitive Solutions*. November.

California Department of Transportation (Caltrans). 2017. *Construction Site Best Management Practices (BMP) Manual*. https://dot.ca.gov/-/media/dot-media/programs/construction/documents/environmental-compliance/csbmp-may-2017-final.pdf. May.

California Department of Transportation (Caltrans). 2019. *Final Sonoma Route 1 Repair Guidelines*. March.

California Department of Transportation (Caltrans). 2021. *Director's Policy 37 Complete Streets.* December. https://dot.ca.gov/-/media/dot-media/programs/sustainability/documents/dp-37-complete-streets-a11y.pdf. Accessed October 4, 2022.

California Department of Transportation (Caltrans). 2022a. *Caltrans District 4 Pedestrian Plan for the Bay Area*. January. https://storymaps.arcgis.com/stories/9a25b6f7dcf146328663b62660a0b6f9. Accessed October 4, 2022.

California Department of Transportation (Caltrans). 2022b. 04-SON-1, PM 0.0/58.58, EA 04-4G780, E-FIS 0413000178. *Construction Noise Analysis.* May 17.

California Department of Transportation (Caltrans). 2022c. 04-SON-1, PM 0.0/58.58, EA 04-4G780, E-FIS 0413000178. *Visual Impact Assessment and Scenic Resource Evaluation*. Memorandum. September 30.

California Department of Transportation (Caltrans). 2022d. *04-SON-1, PM 0.0-58.58, 04-4G780, E-FIS 0413000178, Center Line Rumble Strip Project, Environmental Study for State Route 1 Center Line Rumble Strip.* Memorandum. Office of Geotechnical Design – West. September 23.

California Department of Transportation (Caltrans). 2022e. 04-SON-1, PM 0.0/58.58, EA 04-4G780, E-FIS 0413000178. *Preliminary Drainage Study.* October.

California Department of Transportation (Caltrans). 2022f. 04-SON-1, PM 0.0/58.58, EA 04-4G780, E-FIS 0413000178. *Water Quality Study.* October.

California Department of Transportation (Caltrans). 2022g. *Office of Cultural Resource Studies (OCRS) Section 106 Closeout Memo for the Sonoma 1 Install Centerline Rumble Strip Project between Post Miles 0.00 and 58.58 on State Route 1, in Sonoma County*. November.

California Department of Transportation (Caltrans). 2022h. 04-SON-1, PM 0.0/58.58, EA 04-4G780, E-FIS 0413000178. *Energy Analysis Report.* November.

California Department of Transportation (Caltrans). 2022i. 04-SON-1, PM 0.0/58.58, EA 04-4G780, E-FIS 0413000178. *Construction Greenhouse Gas Emissions Analysis*. November.

California Department of Transportation (Caltrans). 2022j. *Natural Environment Study*. Sonoma 1 Centerline Rumble Strip Project. November.

California Native Plant Society (CNPS). 2022. Inventory of Rare and Endangered Plants of California (online edition). http://www.rareplants.cnps.org. Accessed September 9, 2022.

California Ocean Protection Council. 2018. *State of California Sea-Level Rise Guidance, 2018 Update*. https://opc.ca.gov/webmaster/ftp/pdf/agenda_items/20180314/Item3_Exhibit-A_OPC_SLR_Guidance-rd3.pdf. Accessed November 17, 2022.

Federal Highway Administration (FHWA). 2012. *Caltrans shapes its standards, policies, and practices as a result of its Roadway Departure Safety Implementation Plan.* https://highways.dot.gov/safety/learn-safety/caltrans-shapes-its-standards-policies-and-practices-result-its-roadway. Accessed October 14, 2022.

Federal Highway Administration (FHWA). 2014. *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*. https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/ser/106pa-14-a11y.pdf/. Accessed November 10, 2022.

Knudsen, K.L., Sowers, J.M., Witter, R.C., Wentworth, C.M., Helley, E.J., Nicholson, R.S., Wright, H.M., and Brown, K.M., 2000. Preliminary maps of Quaternary deposits and liquefaction susceptibility, nine-county San Francisco Bay region, California: U.S. Geological Survey Open-File Report 00-444, 3 Arc/Info coverages, plotfiles for 2 sheets, scale 1:275,000, 2 pamphlets. https://pubs.usgs.gov/of/2000/of00-444/. Accessed October 2022.

Manson, M.W., Huyette, C.M, Wills, C.J., Huffman, M.E., Smelser, M.G., Fuller, M.E., Domrose, and Gutierrez, C. 2006. *Landslides along the Highway 1 Corridor Between Bodega Bay and Fort Ross, Sonoma County California.* California Geological Survey. Special Report 196. https://www.conservation.ca.gov/cgs/Documents/Landslides/Caltrans/SR_196/CT001Son.pdf. Accessed October 2022.

Miller, R.V. and L.L. Busch. 2013. *Update of Mineral Land Classification: Aggregate Materials in the North San Francisco Bay Production-Consumption Region, Sonoma, Napa, Marin, and Southwestern Solano Counties, California*. California Geological Special Report 205. https://www.worldcat.org/title/update-of-mineral-land-classification-aggregate-materials-in-the-north-san-francisco-bay-production-consumption-region-sonoma-napa-marin-and-southwestern-solano-counties-california/oclc/871208810. Accessed October 2022.

Miller, S.L. and Ralph C.J. 1995. "Relationship of Marbled Murrelets with habitat characteristics at inland sites in California." In *Ecology and Conservation of the Marbled Murrelet*, edited by Ralph C.J., Hunt G.L., Raphael M.G., Piatt J.F., pp. 205-215. Albany, CA: USDA Forest Service Gen. Tech. Rep. PSW-152.

National Oceanographic and Atmospheric Administration Fisheries Service (NOAA Fisheries). 2022. Official Species List Web Map Query Tool. Accessed September 9, 2022.

Natural Resources Conservation Service (NRCS). 2022. Web Soil Survey Map and Report for State Route 1 Install Centerline Rumble Strip Project (EA: 04-4G780, California. United States Department of Agriculture. http://websoilsurvey.nrcs.usda.gov/. Accessed October 2022.

Sonoma County. 2001. *Local Coastal Plan.* Adopted 1981. Amended 2001. https://permitsonoma.org/longrangeplans/adoptedlong-rangeplans/currentlocalcoastalplan. Accessed November 15, 2022.

Sonoma County. 2016. *General Plan 2020*. Adopted September 23, 2008. Amended August 2, 2016. https://sonomacounty.ca.gov/PRMD/Long-Range-Plans/General-Plan/. Accessed November 15, 2022.

Sonoma County. 2019. *Local Coastal Plan. Road and Bikeway Classification.* https://permitsonoma.org/longrangeplans/adoptedlong-rangeplans/currentlocalcoastalplan/maps/roadandbikewayclassification. Accessed November 15. 2022.

Sonoma County. 2021. *Sonoma County Operational Area Emergency Operations Plan Annex: Evacuation*. Published August 2021.

Sonoma County. 2022a. *Emergency Operations Plan*. https://sonomacounty.ca.gov/administrative-support-and-fiscal-services/emergency-management/plans. Accessed October 3, 2022.

Sonoma County. 2022b. *Know your Zone – Sonoma County Evacuation Zones Maps*. https://socoemergency.org/get-ready/evacuation-map/. Accessed October 9, 2022.

State Water Resources Control Board (SWRCB). 2018. *2018 303(d) List for the North Coast Region Impaired Water Bodies.* https://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/303d/pdf/220812/20220812%202018%20303(d)%20List%20For%20the%20North%20Coast%20Region%20CORRECTED.pdf. Accessed November 10, 2022.

State Water Resources Control Board (SWRCB). 2022. GeoTracker. https://geotracker.waterboards.ca.gov/profile_report?global_id=T0609700406&mytab=esidata&subcmd=edfsummarytable#esidata. Accessed October 3, 2022.

Stebbins, R.C. 1951. Amphibians of western North America. Univ. California Press, Berkeley. 538 pp.

U.S. Environmental Protection Agency (USEPA). 2022. *Non-attainment Areas for Criteria Pollutants* (Green Book). https://www3.epa.gov/airquality/greenbook/anayo_ca.html. Accessed October 4, 2022.

U.S. Fish and Wildlife Service (USFWS). 2006. *Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California*.

U.S. Fish and Wildlife Service (USFWS). 2007. *Recovery Plan for the Pacific Coast Population of the Western Snowy Plover (*Charadrius alexandrinus nivosus*).* In 2 volumes. Sacramento, California. xiv + 751 pages.

U.S. Fish and Wildlife Service (USFWS). 2012. *Revised Protocol for Surveying Proposed Management Activities that May Impact Northern Spotted Owls.* U.S. Fish and Wildlife, Portland, Oregon. Revised January 9.

U.S. Fish and Wildlife Service (USFWS). 2014. Programmatic Informal Consultation for the California Department of Transportation's Routine Maintenance and Repair Activities, and Small Projects Program for Districts 1 and 2. Programmatic Letter of Concurrence (PLOC) between Caltrans and U.S. Fish and Wildlife Service. AFWO-12B0001-12I0001. https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/ser/arcata-fws-concurltr-a11y.pdf. Pgs. 1-22.

U.S. Fish and Wildlife Service (USFWS). 2022. Information for Planning and Consultation (IPac). https://ecos.fws.gov/ipac/.

Appendix E Species Lists

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: March 28, 2023
Project Code: 2023-0061317
Project Name: State Route 1 Centerline Rumble Strip Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

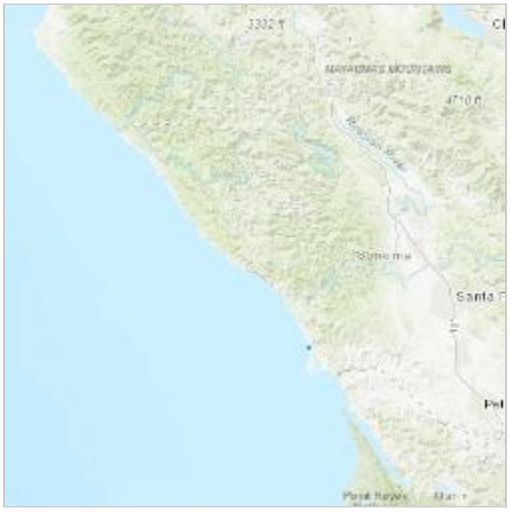
This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

PROJECT SUMMARY

Project Code: 2023-0061317
Project Name: State Route 1 Centerline Rumble Strip Project
Project Type: Road Repair
Project Description: Caltrans proposes to widen the existing shoulder to 6 feet at 50 spot locations and install four segments of centerline rumble strips between post miles 0.00 and 58.58 on State Route 1 in Sonoma County.
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.33733125,-122.97866093520115,14z



Counties: Sonoma County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 20 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

BIRDS

NAME	STATUS
Marbled Murrelet *Brachyramphus marmoratus* Population: U.S.A. (CA, OR, WA) There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4467	Threatened
Northern Spotted Owl *Strix occidentalis caurina* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1123	Threatened
Western Snowy Plover *Charadrius nivosus nivosus* Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

REPTILES

NAME	STATUS
Green Sea Turtle *Chelonia mydas* Population: East Pacific DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6199	Threatened

AMPHIBIANS

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened

FISHES

NAME	STATUS
Tidewater Goby *Eucyclogobius newberryi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/57	Endangered

INSECTS

NAME	STATUS
Behren's Silverspot Butterfly *Speyeria zerene behrensii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/900	Endangered
Lotis Blue Butterfly *Lycaeides argyrognomon lotis* There is **proposed** critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/5174	Endangered
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate
Myrtle's Silverspot Butterfly *Speyeria zerene myrtleae* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6929	Endangered

CRUSTACEANS

NAME	STATUS
California Freshwater Shrimp *Syncaris pacifica* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7903	Endangered

FLOWERING PLANTS

NAME	STATUS
Baker's Larkspur *Delphinium bakeri* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5031	Endangered
Clover (tidestrom"s) Lupine *Lupinus tidestromii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4459	Endangered
Contra Costa Goldfields *Lasthenia conjugens* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7058	Endangered
Showy Indian Clover *Trifolium amoenum* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6459	Endangered
Sonoma Alopecurus *Alopecurus aequalis var. sonomensis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/557	Endangered
Sonoma Spineflower *Chorizanthe valida* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7698	Endangered
Sonoma Sunshine *Blennosperma bakeri* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1260	Endangered
Yellow Larkspur *Delphinium luteum* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3578	Endangered

CRITICAL HABITATS

There are 2 critical habitats wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Marbled Murrelet *Brachyramphus marmoratus* https://ecos.fws.gov/ecp/species/4467#crithab	Final
Yellow Larkspur *Delphinium luteum* https://ecos.fws.gov/ecp/species/3578#crithab	Final

IPAC USER CONTACT INFORMATION

Agency: California Department of Transportation District 4
Name: Stephanie Owens
Address: 155 Grand Avenue, Suite 800
City: Oakland
State: CA
Zip: 94612
Email stephanie.owens@jacobs.com
Phone: 4086279522

LEAD AGENCY CONTACT INFORMATION

Lead Agency: California Department of Transportation District 4

Appendix F Responses to Comments

Responses to Comments: Agencies

No comments were received from federal agencies. Comments were received from the following State Agency:

Comment SA-1, California Department of Fish and Wildlife – Bay Delta Regio, page 1 of 17

DocuSign Envelope ID: 9FDB66D3-0161-4230-B467-A96F5D3E9BC7

State of California
Department of Fish and Wildlife

M e m o r a n d u m

Date: February 17, 2023

To: Arnica MacCarthy
California Department of Transportation
District 4
111 Grand Avenue
Oakland, CA 94612
Arnica.MacCarthy@dot.ca.gov
son1centerlinerumblestrip@dot.ca.gov

Governor's Office of Planning & Research
Feb 21 2023
STATE CLEARINGHOUSE

DocuSigned by:
Erin Chappell
B77E9A6211EE486...

From: Ms. Erin Chappell, Regional Manager
California Department of Fish and Wildlife-Bay Delta Region, 2825 Cordelia Road, Suite 100, Fairfield, CA 94534

Subject: State Route 1 Centerline Rumble Strips Project (04-4G780), Initial Study/Negative Declaration, SCH No. 2023010380, Sonoma County

The California Department of Fish and Wildlife (CDFW) has received the Notice of Availability for the draft Initial Study/Negative Declaration (IS/ND) for the State Route (SR) 1 Centerline Rumble Strips Project (Project), pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1] CDFW is submitting comments on the draft IS/ND as a means to inform the California Department of Transportation (Caltrans) as the Lead Agency, of our concerns regarding potentially significant impacts to biological resources associated with the proposed Project.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a **Responsible Agency** under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's Lake and Streambed

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

SA-1, California Department of Fish and Wildlife – Bay Delta Regio, page 2 of 17

Alteration (LSA) regulatory authority. (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT LOCATION AND DESCRIPTION

Caltrans proposes to install centerline rumble strips, wet-night visibility striping and widen shoulders at 50 locations along State Route (SR) 1 in Sonoma County. The installations will occur over a 58.58-mile stretch from the Marin County line to the Mendocino County line.

Centerline Rumble Strips

Caltrans proposes to install incontiguous sections of ground-in centerline rumble strips on SR-1 at 50 locations as specified in Table 1-1 on page 1-2 to page 1-4 of the IS/ND. The centerline rumble strips will be discontinued where the speed limit is equal to or less than 35 miles per hour (mph). The locations include a minimum of 25 feet in advance of highway intersections, pedestrian crossings, cattle guards, commercial or town centers, and left-turn lane openings. For the installation of the ground-in centerline rumble strips a grinder truck would grind the existing striping from the centerline, and grind in the centerline rumble strip. The highway surface will be cleaned immediately after with a vacuum truck and application of new 6-inch-wide wet-night visibility striping will be completed with a striping truck, within the same closure limits.

Shoulder Widening

The shoulder widening will increase the existing shoulder to 6 feet at 50 locations (Table 2-3) on page 2-4 to page 2-5 of the IS/ND. In areas with an existing width of shoulder that is relatively flat or on an uphill grade, extensive embankment creation, excavation, or retaining structures will not be required to construct the shoulder widening. In locations where the existing width of the shoulder is not adequate, the depth of excavation at the shoulder widening locations will be 1.8 feet. The total new impervious surface (NIS) due to the shoulder widening will impact 4.05 acres. The Project will provide sufficient shoulder width to accommodate bicyclists where off-road bicycle facilities are not feasible. The widening and paving of the 6-foot shoulders from the existing edge of travel way (ETW) will be completed separately from the rumble strip and restriping operation. Shoulder closures are anticipated during construction of the shoulder widening. A temporary barrier system will be placed along the ETW. Locations of the shoulder widening will require clearing and grubbing of vegetation.

Drainage Systems

Drainage improvements will include new impervious areas created by the shoulder widening that will increase roadway runoff. The existing drainage facilities, such as

SA-1, California Department of Fish and Wildlife – Bay Delta Regio, page 3 of 17

cross culverts and roadside ditches, have the capacity to handle this increase. Drainage locations within the widened shoulder will cause the embankment slope to encroach into the existing roadside ditch, reducing its capacity. To minimize this impact, design strategies such as reducing the proposed 3-foot choker and/or steepening the side slope to a 2:1 ratio will be employed. The choker is the area between the outside edge of the shoulder and the top of the embankment slope, and its purpose is to drain runoff away from the highway, towards the embankment. Any existing ditches or swales impacted by the Project will need to be reestablished. The Lead Agency has not determined if excavation required for the Project would impact any culverts. Concrete backfill will be required along the portion of a culvert with less than 2 feet of material above the top of the culvert. For any drainage inlets that will be impacted, the frames and grates or the inlet tops will be adjusted to grade.

REGULATORY REQUIREMENTS

Lake and Streambed Alteration Agreement Notification

CDFW requires an LSA Notification, pursuant to Fish and Game Code § 1600 et. seq., for any activity that may substantially divert or obstruct the natural flow; change or use material from the bed, channel, or bank (including associated riparian or wetland resources); or deposit or dispose of material where it may pass into a river, lake or stream. Work within ephemeral streams, washes, watercourses with a subsurface flow, and floodplains are generally subject to notification requirements.

Fully Protected Species

Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take, except for collecting these species for necessary scientific research and relocation of a fully protected bird species for the protection of livestock. Take of any fully protected species is prohibited, and CDFW cannot authorize their take in association with a general project except under the provisions of a Natural Communities Conservation Plan (NCCP), 2081.7 or a Memorandum of Understanding for scientific research, including efforts to recover fully protected, threatened, or endangered species. "Scientific Research" does not include an action taken as part of specified mitigation for a project, as defined in Section 21065 of the Pub. Resources Code.

California Endangered Species Act

Please be advised that a CESA Permit must be obtained if the Project has the potential to result in "take" of plants or animals listed under CESA, either during construction or over the life of the Project. Issuance of a CESA Permit is subject to CEQA documentation; the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the Project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA Permit. CEQA requires a Mandatory Finding of Significance if a project is likely to substantially impact

SA-1, California Department of Fish and Wildlife – Bay Delta Regio, page 4 of 17

threatened or endangered species (Pub. Resources Code, §§ 21001(c), 21083, and CEQA Guidelines §§ 15380, 15064, 15065). Impacts must be avoided or mitigated to less-than-significant levels unless the CEQA Lead Agency makes and supports Findings of Overriding Consideration (FOC). The CEQA Lead Agency's FOC does not eliminate the Project proponent's obligation to comply with Fish and Game Code, § 2080. More information on the CESA permitting process can be found on the CDFW website at https://www.wildlife.ca.gov/Conservation/CESA.

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist the Lead Agency in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on biological resources.

COMMENT 1: Lake and Streambed Alteration Program Notification

SA-1-1

Issue: The IS/ND does not provide adequate detail of the permanent and temporary impacts that have the potential to occur within the bed, bank, channel, and riparian habitat associated with the Project. This could have the potential for a substantial adverse effect on riparian habitat.

Recommendation: CDFW recommends the Lead Agency include a determination on the permanent and temporary impacts to bed, bank, channel, and upland riparian habitat necessary to widen the roadway and modify culverts. The updated IS/ND should also specify which segments of the roadway will require roadside slope increases and additional hardscape installations.

Recommendation 1 – Seasonal Work Window: Measure PF-BIO-1 in the IS/ND should be updated to incorporate specific seasonal work windows within aquatic features that may impact bed, bank, channel, or riparian habitat. The recommended work window is June 15 to October 15. The measure should also be updated to include language that indicates no work shall occur within 24 hours of a rain event predicated at a chance of 40% or more according to the National Weather Service.

Recommendation 2 – Culvert Impact Inventory Report: A culvert impact inventory should be developed that places additional columns in Table 1-1 and/or Table 2-3 of the IS/ND. The additional columns should include a column for temporary impacts, permanent impacts, and a column for fish passage status in the Fish Passage Database (Fish-PAD; Biological Information and Observation System (BIOS); DS-69). A column should also be included for terrestrial crossing potentials at each culvert location within the Project limits. A final column should be included that identifies if excavation and/or increase of the slope is necessary to install Project related components identified in the Project Description of this comment letter.

Recommendation 3 – Geo-Textiles, Filter-Fabric and Cementitious Material: CDFW recommends the design or re-design of any culverts within the Project does not

SA-1, California Department of Fish and Wildlife – Bay Delta Regio, page 5 of 17

employ geo-textiles, filter-fabric, or cementitious material within rock slope protection fields of drainage outfalls. A granular filter design should be incorporated in coordination with CDFW Conservation Engineering Staff. The design should follow the principles outlined in the *Federal Highway Administrations' Hydraulic Engineering Circular No. 23 (HEC-23) - Bridge Scour and Stream Instability Countermeasures-Third Edition Volume 2* (Lagasse et al, 2009) and *Caltrans' Design Information Bulletin No. 87-01 – Hybrid Streambank Revetments* (Caltrans, 2014) for design guidance on granular filter designs. In the event work is occurring within a salmonid bearing system, fish spawning gravel should be incorporated into the channel design where appropriate. Size selection should be conducted in close coordination with CDFW. Gravel should consist of clean, creek-run rock, 0.25 to 10.2 centimeters in size.

SA-1-1 (cont.)

Recommendation 4 - Restoration and Mitigation Planning: CDFW strongly recommends the Lead Agency develop a mitigation plan in coordination with CDFW for any permanent Project impacts that cannot be avoided that will be subject to LSA permitting and include that plan as part of the updated IS/ND. The mitigation concept provided in BIO-AMM-19 for restoration, enhancements or mitigation at a 1:1 ratio for permanent impacts does not appear to appropriately reduce potentially significant impacts to fish and wildlife resources below a level of significance. The mitigation plan should include in detail any proposed on and/or off-site mitigation needs necessary to compensate for net-loss of river or stream resources including, but not limited to, tree trimming, tree removals, hardscape materials and geo-textile fabric within the bed, bank or channel of a stream, loss of riparian vegetation and mature trees, and expansion of existing infrastructure footprint(s). CDFW recommends proposed mitigation plan(s) include details such as engineered design drawings, mitigation location(s), proposed actions, monitoring, success criteria and any corrective actions.

Recommendation 5 – Culverts in High Fire Severity Zones: Figure 3-1 of the IS/ND includes 15 High Fire Severity Zones maps that indicate the Project occurs within Moderate, High and Very High Fire Severity Zones. CDFW recommends the reliance on non-plastic-based materials in instances where culverts are modified, replaced, or reconstructed to prevent the potential for fire events to melt the material and increase micro-plastic pollution within the environment. CDFW recommends the use of corrugated metal pipe or steel pipes for permanent culvert replacement or modification applications and when employing temporary stream diversions systems in High to Very High Fire Severity Zones.

Recommendation 6 – Design Coordination with HabCon and Conservation Engineering: Early coordination with the CDFW Habitat Conservation Program (HabCon) and the Conservation Engineering Branch is recommended to provide review and analysis of any proposed staging, access roads, structures or Project elements with the potential to impact fish and wildlife resources. Provide the CDFW Conservation Engineering Branch engineered drawings, a basis of design report and Project specifications during the initial design process, prior to design selection and re-initiating

SA-1, California Department of Fish and Wildlife – Bay Delta Regio, page 6 of 17

SA-1-1 (cont.)

design consultation at 30% design at minimum, and through the permitting process for review and comment.

COMMENT 2: Bridge Runoff Capture Systems

Issue: The IS/ND indicates 4.05 acres of impervious surface will be impacted and the roadway widening will increase the surface area of impervious surfaces throughout the Project. The Project Description also indicates that numerous culverts and drainage systems have the potential to be modified. Impervious surfaces, stormwater systems, and storm drain outfalls have the potential to significantly affect fish and wildlife resources from polluted water by altering the hydrography of natural streamflow patterns via concentrated run-off that enters streams and associated systems from the road. The IS/ND PF-BIO-5 indicates bio-filtration strips and swales will be employed to the maximum extent practicable. The Project Description wording is vague because it does not indicate if the installation of any new bio-filtration strips or swales will actually occur or where they may be placed. This could have the potential for a substantial adverse effect on sensitive species.

SA-1-2

Evidence the impact would be significant: Urbanization (e.g., impervious surfaces, stormwater systems, storm drain outfalls) can modify natural streamflow patterns by increasing the magnitude and frequency of high flow events and storm flows (Hollis 1975, Konrad and Booth, 2005). A review by Eisler (1987) indicates elevated incidence of tumors and hyperplastic diseases, and some circumstantial evidence about cancers, in fish in areas with high sediment Polycyclic Aromatic Hydrocarbon (PAH) levels. Arsenic, cadmium, chromium, lead, mercury, nickel, and zinc have been detected in streambed sediments and Stormwater Runoff in the tissue of fish, indicating bioaccumulation of these metals in the environment (MacCoy and Black, 1998). Lead concentrations in benthic insects, and nickel and cadmium levels in certain fish were found to be related to traffic density and sediment levels of these constituents (Van Hassel, 1980). Acute toxicity and mortality have also been tied to immediate road runoff from a compound occurring in tires, 6PPD-Quinnone, that has been linked to Coho mortality (Tian, 2021).

Recommendation 1: Bridge Capture Runoff System: CDFW recommends the Project design incorporate specific bio-filtration strips, swales and other storm water capture run-off systems throughout the Project. The storm water capture runoff systems shall prevent direct runoff of untreated water from the roadway into creeks, drainages or swales. The stormwater runoff system shall direct runoff to a land-based bio-filtration system or a mechanical filter system to avoid, minimize and treat any discharge water. Reference the *Bridges Stormwater Runoff from Bridges Final Report to Joint Legislation Transportation Oversight Committee*, beginning on page 2-12 of the report for examples of an appropriate runoff capture system design.

SA-1, California Department of Fish and Wildlife – Bay Delta Regio, page 7 of 17

COMMENT 3: Tree Removal Analysis

Issue: Page 3-6, Section 3.3.1 of the IS/ND indicates that trees will be trimmed or removed throughout the Project. The IS/ND does not provide a map, figure, or specific inventory of trees proposed for trimming or removal which would allow CDFW to assess the impact of the activity to fish and wildlife resources as it pertains to trees. This could have the potential for a substantial adverse effect on riparian habitat and sensitive species.

SA-1-3

Recommendation 1 - Tree Inventory Report: Provide a tree inventory that includes a map or figure that identifies the location, species, diameter at breast height, estimated age, and overall health of all trees proposed for removal and trimming.

Recommendation 2 - On-Site Preservation of Forest Trees and Riparian Trees: Impact to trees should be avoided to the maximum extent feasible and additional designs should be incorporated to minimize impacts on mature native trees and riparian resources.

Recommendation 3 - Restoration and Mitigation Planning: Reference **Recommendation 4 - Restoration and Mitigation Planning** from the **COMMENT 1: Lake and Streambed Alteration Program Notification** section of this comment letter.

COMMENT 4: Northern Spotted Owl Avoidance and Minimization

Issue: Northern Spotted Owl (NSO) is federally listed as threatened under the Endangered Species Act (ESA) and is CESA listed as threatened. The potential impacts identified within the IS/ND to suitable NSO habitat may not adequately describe all the potential permanent and temporary impacts to NSO habitat. If the proposed measures are not updated as identified in the section below for NSO, the Project could have the potential for a substantial adverse effect on sensitive species.

SA-1-4

Evidence the Impact is Significant: The Project occurs within potential NSO habitat according to Spotted Owl Predicted Habitat (BIOS; DS-2185) and within NSO Habitat for Connectivity Modeling (BIOS; DS-876). In addition, 200 detections occur within 5 miles of the Project, 6 of those detections occur within 0.33 to 1.07 miles as noted on page 3-17 and 3-18 of the IS/ND. The Project also proposes the removal of an unspecified number of trees and indicates impact to 0.178 acres (temporary and permanent combined) of NSO habitat. CDFW recommends additional habitat analysis is conducted as the impact footprint may be larger than initially described. NSO is typically associated with old-growth or mature forests, but NSO can utilize a wide variety of habitat types, including oak woodlands. They exhibit flexibility in their use of different forested areas for nesting, roosting, and feeding requirements. Typical habitat characteristics include a multi-storied structure and high canopy cover (Thome, 1999). Impacts from the Project would be significant if NSO nests or nesting trees were cut down or if nearby nesting NSO were exposed to elevated sound levels or human presence that would cause nest abandonment.

SA-1, California Department of Fish and Wildlife – Bay Delta Regio, page 8 of 17

SA-1-4 (cont.)

Recommendation 1 – Nest Avoidance Buffer and Seasonal Work Window: AMM BIO-6 and AMM BIO-7 should be updated as follows: To reduce impacts to less-than-significant, no Project activities shall occur within 0.25 miles of NSO nesting habitat from March 15 to August 31, unless NSO surveys have been completed by a qualified biologist following the U.S. Fish and Wildlife Service (USFWS) *Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls*, dated (revised) January 9, 2012 and the survey report is accepted by CDFW in writing. If breeding NSO are detected during surveys, a 0.25-mile no-disturbance buffer zone shall be implemented around the nest. NSO surveys shall be conducted for each year Project construction occurs. No Project activities shall occur within the buffer zone until the end of the breeding season, or a qualified biologist determines that the nest is no longer active, unless otherwise approved in writing by CDFW. Alternate buffer zones may be proposed by a qualified biologist after conducting an auditory and visual disturbance analysis following the USFWS guidance, *Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California*, dated October 1, 2020. Alternate buffers must be approved in writing by CDFW. Survey results shall be provided to the Spotted Owl Observations Database at https://wildlife.ca.gov/Data/CNDDB/Spotted-Owl-Info. If NSO are detected, CDFW and the USFWS shall be immediately notified.

Recommendation 2 – California Endangered Species Act Consultation for Northern Spotted Owl: If Project activities may result in take of NSO, the Project proponent shall apply for and obtain a CESA Incidental Take Permit from CDFW prior to beginning the Project.

COMMENT 5: Terrestrial Wildlife Connectivity

SA-1-5

Issue: The Project has the potential to significantly impact terrestrial wildlife connectivity over a 58.58-mile linear segment of highway on SR-1 in Sonoma County. The surrounding habitat supports threatened, endangered, special-status and native species including, but not limited to, California Giant Salamander (CGS), Foothill Yellow-Legged Frog (FYLF), California Red-Legged Frog (CRLF) and Red-Bellied Newt (RBN). Page 2-5 to 2-6 of the IS/ND notes drainage system extensions, modifications and roadway widening may require an increase in the slope of the road invert to 2:1. The increase of the slope at the edge of the roadway or modification of multiple culverts may have the potential to create a series of impassable barriers over a 58.58-mile segment of SR-1 that could substantially interfere with the movement of small herpetofauna.

Evidence the impact would be significant: California wildlife is losing the ability to move and migrate as habitat conversion and built infrastructure disrupt species habitat and cuts off migration corridors (Senate Bill 790; SB-790; https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220SB790). The current baseline condition of the area proposed for construction represents a semi-permeable barrier to wildlife connectivity. Larger wildlife species may cross at their own risk of injury or mortality but smaller species such as herpetofauna would most likely not

SA-1, California Department of Fish and Wildlife – Bay Delta Regio, page 9 of 17

cross the highway successfully without incurring injury or mortality. Further modification of the culverts and an increase in the slope at the edge of the roadway along the 58.58-mile segment of SR-1 has the potential to create a non-permeable barrier to terrestrial wildlife connectivity for herpetofauna, even if the construction occurs in focused segments.

Page 3-16 of the IS/ND indicates the Project occurs within the current range of CRLF and 20 California Natural Diversity Database (CNDDB) occurrences reside within 2 miles of the Project. Numerous aquatic resources (e.g., drainages, streams, creeks, and ponds) are also located within 2 miles of the Project. Page 3-17 of the IS/ND indicates FYLF occurs in several creeks in the vicinity of the Project, and suitable non-breeding FYLF habitat is present throughout the Project. There are 11 CNDDB occurrences of FYLF within 2 miles of the Project, most of which are located toward the northern end of the Project limits. Page 3-22 indicates 14 CNDDB occurrences of CGS within 2 miles of the Project. Additionally, surveyors discovered two juvenile CGS within a creek in the Caltrans right-of-way adjacent to Location 49. Page 3-22 of the IS/ND indicates three CNDDB occurrences of RBN within 2 miles of the Project. Wetlands, waters, and riparian and forested areas within the Project vicinity could provide suitable habitat for these species. The Project should incorporate a wildlife connectivity analysis and highway system facility modification designs to ensure connectivity remains and the potential for mortality is reduced for herpetofauna.

SA-1-5 (cont.)

Recommendation Mitigation Measure 1 – Wildlife Connectivity: Terrestrial connectivity elements such as wildlife friendly culverts, under-crossings, elevated causeways and over-crossings should be programmed into the Project as design features. To inform design and placement of connectivity features, the Lead Agency shall develop a wildlife movement study. The study should occur over a minimum period of 12 months prior to the initiation of construction and preferably be incorporated into the draft IS/ND. The study shall occur within the limits of the proposed Project to develop a baseline understanding of the areas where wildlife movement and crossings are most prevalent. The study should also be utilized to inform Project design to identify areas where wildlife crossing structure(s) installation(s) would result in the largest benefit to rare, threatened, and endangered species, as well as, special-status species and non-special status species for wildlife connectivity. Analysis during the 12-month study shall be utilized to determine the type, size and number of structures that would be most beneficial to facilitate wildlife connectivity (new wildlife crossing culverts, modification of existing culverts, wildlife crossing bridges, etc.). Upon completion of the Project, the wildlife connectivity structures should be studied for an additional 12-month period, at minimum, to determine the effectiveness of structure utilization by wildlife. The protocol for the baseline survey, post-construction surveys, site selection criteria and design criteria for the development of the wildlife connectivity structures should follow the protocols outlined in; *The California Department of Transportation (Caltrans), Wildlife Crossings Design Manual* (Caltrans, 2009) and the *Federal Highway Administration Wildlife Crossing Structure Handbook – Design and Evaluation in North America, Publication No. FHWA-CFL/TD-11-003* (FHWA, 2011).

SA-1, California Department of Fish and Wildlife – Bay Delta Regio, page 10 of 17

SA-1-5 (cont.)

Recommendation Mitigation Measure 2 – Wildlife Connectivity: The Lead Agency should develop a series of heat maps for target species along the SR-1 corridor using high value resource layers including, but not limited to, species presence/absence, drainages, culverts, creeks, road-strike data, and wildlife linkage corridors for pinpointing key wildlife crossing locations with high permeability and potential for use by target species.

Recommendation Mitigation Measure 3 – Drainage Escape Structures: The Lead Agency should design and implement, in coordination with the natural resource agencies, escape structures for small herpetofauna when drainage systems and culverts are not conducive for crossing and entrapment within the system is likely. Escape structure can include, but not be limited to, escape ramps, floating refuge buckets and amphibian ladders (McInroy, 2015 and Schelbert, 2009).

COMMENT 6: Fish Passage Assessment

SA-1-6

Issue: Multiple potential fish passage barriers and unassessed locations exist within the identified Project limits. Senate Bill 857 (SB-857), which amended Fish and Game Code § 5901 and added § 156 to the Streets and Highways Code states in § 156.3, "For any project using state or federal transportation funds programmed after January 1, 2006, [Caltrans] shall ensure that, if the project affects a stream crossing on a stream where anadromous fish are, or historically were found, an assessment of potential barriers to fish passage is done prior to commencing project design. [Caltrans] shall submit the assessment to the [CDFW] and add it to the CALFISH database. If any structural barrier to passage exists, remediation of the problem shall be designed into the project by the implementing agency. New projects shall be constructed so that they do not present a barrier to fish passage. When barriers to fish passage are being addressed, plans and projects shall be developed in consultation with the [CDFW]." The modification of unidentified culverts over 58.58 miles on SR-1 could substantially interfere with the movement of native resident or migratory fish.

Evidence the impact would be significant: The Project contains stream crossings within areas mapped as historic or current watersheds where anadromous fish are, or historically were found. The species include, but are not limited to, Central California Coast Coho – Critical Habitat and Range (BIOS; DS-3015 and DS-1277), California Coast Fall Chinook Salmon Range (BIOS; DS-1297) and Central California Coast Steelhead and Coastal Steelhead Trout Waters (BIOS; DS-1287 and DS-962). The decline of naturally spawning salmon and steelhead trout is primarily a result of the loss of appropriate stream habitat and the inability of fish to get access to habitat, according to reports to the Fish and Game Commission and by CDFW (CDFW, 1996). Restoration of access to historical spawning and rearing areas should be incorporated into the Project design through barrier modification, fishway installation, or other means (CDFW, 1996).

Recommendations: If barriers or unassessed barriers noted within the Project limits are found to be a barrier to fish passage, remediation of the problem should be

SA-1, California Department of Fish and Wildlife – Bay Delta Regio, page 11 of 17

designed into the Project by the implementing agency as a Project feature in consultation with CDFW and other natural resource agencies. The fish passage section should discuss the current status of each crossing location noted within the Fish Passage Assessment Database (BIOS; DS-69) from Table 1-1 and Table 2-3 of the IS/ND. First pass and/or second pass fish assessments, as necessary, and images of the upstream and downstream ends of water conveyance structure should be included in the updated IS/ND. Presenting the information in table format with corresponding maps is also strongly recommended.

SA-1-6 (cont.)

Recommended Mitigation Measure 1: Fish Passage Assessment: To evaluate potential impacts to native fish species and fisheries resources, Caltrans should submit the assessment to the CDFW and add it to the CALFISH database. If any structural barrier to passage exists, remediation of the problem shall be designed into the Project by the implementing agency. New projects shall be constructed so that they do not present a barrier to fish passage. When barriers to fish passage are being addressed, plans and projects shall be developed in consultation with CDFW. CDFW shall be engaged prior to design in early coordination and at 30% design at minimum.

Recommended Mitigation Measure 2: Fish Passage Assessment Table: The Lead Agency shall develop a table for incorporation into the IS/ND that notes all proposed locations of work identified in Table 1-1 and 2-3 of the IS/ND and provide a corresponding column that indicates known culverts within the location of the proposed work. The table should identify the Fish PAD ID number, barrier status and the results of any primary or secondary fish passage assessments. CDFW will need this assessment and information in order to process an LSA Agreement Notification for the proposed Project.

Recommended Mitigation Measure 3: Fish Passage Design Coordination: Caltrans shall engage with CDFW in early and continued coordination before design commences as specified in **Recommendation 6 – Design Coordination with HabCon and Conservation Engineering** from the **COMMENT 1: Lake and Streambed Alteration Program Notification** section of this comment letter.

COMMENT 7: Bat Assessment and Avoidance

Issue: Page 3-21 of the IS/ND indicates multiple locations have the potential to support bats or contain roosting trees or potential roosting structures and facilities. Multiple bat species are identified within the Project limits as having suitable habitat including, but not limited to; Big Brown Bat (BIOS; DS-1828); Brazilian Free-Tailed Bat (BIOS; DS-2498); Townsends Big-Eared Bat (BIOS; DS-2496) and the Hoary Bat (BIOS; DS-2493). The IS/ND does not identify the extent to which impacts may occur to bats or their habitat from modification of existing structures or the removal of trees, this could result in substantial adverse effect on sensitive species and riparian habitat.

SA-1-7

Recommendation: Modify measures AMM-BIO-16 and AMM-BIO-17 of the IS/ND to the following:

SA-1, California Department of Fish and Wildlife – Bay Delta Regio, page 12 of 17

Recommended Mitigation Measure 1 – Bat Habitat Assessment: A qualified biologist should conduct a habitat assessment within the Project limits for suitable bat roosting habitat. The habitat assessment shall include a visual inspection of features within 200 feet of the work area for potential roosting features including trees, crevices, portholes, expansion joints and hollow areas (bats need not be present). A report should be provided by the qualified biologist and incorporated into the subsequent draft IS/ND that includes a section discussing the locations of suitable bat habitat and if any bats or signs of bats (feces or staining at entry/exit points) are discovered. The surveys should occur at least two seasons in advance of Project initiation.

SA-1-7 (cont.)

Recommended Mitigation Measure 2 – Bat Habitat Monitoring: If potentially suitable bat roosting habitat is determined to be present based on recommended mitigation measure 1 above, a qualified biologist shall conduct focused surveys at the trees, bridge(s), culverts and overpasses. Methods should include utilizing night-exit surveys, sound analyzation equipment and visual inspection within open expansion joints and portholes of the structures. Surveys should occur from March 1 to April 15 or August 31 to October 15 prior to construction activities. If the focused survey reveals the presence of roosting bats, then the appropriate exclusionary or avoidance measures will be implemented prior to construction during the period between March 1 to April 15 or August 31 to October 15. Potential avoidance methods may include temporary, exclusionary blocking, one-way-doors or filling potential cavities with foam. Methods may also include visual monitoring and staging of work at different ends of the Project to avoid work during critical periods of the bat life cycle or to allow roosting habitat to persist undisturbed throughout the course of construction. Exclusion netting or adhesive roll material shall not be used as exclusion methods. If presence/absence surveys indicate bat occupancy, then construction should be limited to avoid the most sensitive stages of the bat species life cycle (maternity/pupping season).

Recommended Mitigation Measure 3 – Bat Project Avoidance: If active bat roosts are observed during environmental assessments or during construction, at any time, all Project activities should stop until the qualified biologist develops a bat avoidance plan to be implemented at the Project site. Once the plan is implemented, Project activities may recommence in coordination with the natural resource agencies. The bat avoidance plan should utilize seasonal avoidance, phased construction, as well as, temporary and permanent bat housing structures developed in coordination with CDFW.

Recommended Mitigation Measure 4 – Permanent Bat Roost Design: Permanent bat roost structures shall be incorporated into the design of modified structures and on trees within the Project to avoid potentially significant impacts from permanent habitat loss to roosting bats. The structures should be designed in coordination with CDFW and include the appropriate baffle spacing or features to accommodate multiple species of bats as specified in the *Caltrans Bat Mitigation: A Guide to Developing Feasible and Effective Solutions Manual* (H.T. Harvey, 2019).

SA-1, California Department of Fish and Wildlife – Bay Delta Regio, page 13 of 17

COMMENT 8: Light Impact Analysis and Discussion

Issue: Page 3-7 of the IS/NMD indicates temporary construction lights will be employed throughout the Project but the IS/ND does not disclose if any new permanent lights or replacement of previously existing light elements with new lighting technology will occur as a result of construction. Please indicate if new permanent light or replacement light elements are proposed. This could result in substantial adverse effect on sensitive species and riparian habitat.

SA-1-8

Evidence the impact would be significant: Artificial night lighting can disrupt the circadian rhythms of many wildlife species. Many species use photoperiod cues for communication (e.g., bird song; Miller, 2006), determining when to begin foraging (Stone et al., 2009), behavior thermoregulation (Beiswenger, 1977), and migration (Longcore and Rich, 2004). For nocturnally migrating birds, direct mortality as a result of collisions with anthropogenic structures due to attraction to light (Gauthreux, 2006) is another direct effect of artificial light pollution. There are also more subtle effects, such as disrupted orientation (Poot et al., 2008) and changes in habitat selection (McLaren et al., 2018). Frogs and salamanders are particularly susceptible to artificial light pollution. Light pollution may affect physiology, behavior, ecology, and evolution of frog and salamander populations (Wise, 2007). For example, artificial light levels and timing influences melatonin production in salamanders. Melatonin regulates hormones, reproductive development and behavior, skin coloration, an animal's ability to regulate body temperature, and night vision (Gern, 1986). Reduced survival at the population level can result in smaller populations or populations that disappear altogether. Due to the high potential for migratory birds, songbirds, amphibians and mammals, including nocturnally active state listed and special-status species such as California tiger salamander and American badger, to occur within the Project limits, CDFW recommends no lighting is installed as a result of Project completion to avoid these potentially significant impacts.

Recommendation: If new or replacement lighting elements are proposed, CDFW strongly recommends that the Project does not propose to install new artificial light sources, especially in areas where no artificial light previously existed. In areas where new or replacement artificial light sources are installed CDFW recommends incorporation of the following:

Recommended Mitigation Measure 1 – Light Output Analysis: The Lead Agency should submit as part of the IS/ND Isolux Diagrams that note current light levels present during Pre-Project conditions and the predicted light levels that will be created upon completion of the Project. If an increase in light output from current levels to the projected future levels is evident, additional avoidance, minimization or mitigation shall be developed in coordination with the natural resource agencies to offset indirect impacts to fish and wildlife species. Within 60 days of Project completion the Lead Agency shall conduct a ground survey that compares projected future light levels with actual light levels achieved upon completion of the Project through comparison of Isolux

SA-1, California Department of Fish and Wildlife – Bay Delta Regio, page 14 of 17

diagrams. If an increase from the projected levels to the actual levels is discovered additional avoidance, minimization or mitigation measures may also be required in coordination with the natural resource agencies. This analysis should be conducted across all potential alternatives and compared in table and map format.

Recommended Mitigation Measure 2 – Light Output Limits: All LED's or bulbs installed as a result of the Project shall be rated to emit or produce light at or under 2700 kelvin that results in the output of a warm white color spectrum.

Recommended Mitigation Measure 3 – Vehicle Light Barriers: Solid barriers at a minimum height of 3.5 feet should be installed in areas where they have the potential to reduce illumination from overhead lights and from vehicle lights into areas outside of the roadway. Barriers should only be utilized as a light pollution minimization measure if they do not create a significant barrier to wildlife movement. Additional barrier types should be employed when feasible, such as privacy slats into the spacing of cyclone fencing to create light barriers for areas outside the roadway.

SA-1-8 (cont.)

Recommended Mitigation Measure 4 – Reflective Signs and Road Striping: Retro-reflectivity of signs and road striping should be implemented throughout the Project to reduce the need for electrical lighting.

Recommended Mitigation Measure 5 – Light Pole Modifications and Shielding: All light poles or sources of illumination that will be new or replacement installations of existing light sources should be installed with the appropriate shielding to avoid excessive light pollution into natural landscapes or aquatic habitat within the Project corridor in coordination with CDFW. In addition, the light pole arm length and mast heights should be modified to site-specific conditions to reduce excessive light spillage into natural landscapes or aquatic habitat within the Project corridor. In areas with sensitive natural landscapes or aquatic habitat, the Lead Agency should also analyze and determine if placing the light poles at non-standard intervals has the potential to further reduce excessive light pollution by decreasing the number of light output sources in sensitive areas.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the CNDDB. The CNDDB online field survey form and other methods for submitting data can be found at the following link: https://wildlife.ca.gov/Data/CNDDB/Submitting-Data. The types of information reported to CNDDB can be found at the following link: https://wildlife.ca.gov/Data/CNDDB/Plantsand-Animals.

SA-1, California Department of Fish and Wildlife – Bay Delta Regio, page 15 of 17

FILING FEES

CDFW anticipates the Project will have an impact on fish and/or wildlife, and assessment of filing fees is necessary (Fish and Game Code, § 711.4; Pub. Resources Code, § 21089). Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW.

CONCLUSION

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California's fish and wildlife resources. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

Questions regarding this letter or further coordination should be directed to Mr. Robert Stanley, Senior Environmental Scientist (Specialist), at (707) 339-6534 or Robert.Stanley@wildlife.ca.gov; or Mr. Wesley Stokes, Senior Environmental Scientist (Supervisory), at (707) 339-6066 or Wesley.Stokes@wildlife.ca.gov.

cc: State Clearinghouse #2023010380

REFERENCES

Beiswenger, R. E. 1977. Diet patterns of aggregative behavior in tadpoles of Bufo americanus, in relation to light and temperature. Ecology 58:98–108.

California Department of Fish and Wildlife (CDFW). July 2009. California Salmonid Stream Habitat Restoration Manual, Part XII.

CDFW. February 1996. Steelhead Restoration and Management Plan for California.

CDFW. June 2010. Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California.

CDFW. 1994. Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California.

The California Department of Transportation (Caltrans). March 2009. Wildlife Crossings Design Manual, Meese et.al., University of California Davis.

Caltrans. 2014. Caltrans' Design Information Bulletin No. 87-01 – Hybrid Streambank Revetments.

California Natural Diversity Database. 2021. https://apps.wildlife.ca.gov/bios/.

SA-1, California Department of Fish and Wildlife – Bay Delta Regio, page 16 of 17

Contor R., Craig, Griffith, J.S. 1995. Nocturnal emergence of juvenile rainbow trout from winter concealment relative to light intensity. Hydrobiologia Vol. 299: 179-18.

Eisler, R. 1987. Polycyclic Aromatic Hydrocarbon Hazards to Fish, Wildlife and Invertebrates: A Synoptic Review. Biological Report 85, Contaminant Hazard Reviews Report No. 11. Laurel, MD: U.S. Fish and Wildlife Service.

Erickson, Gregg. 2003. Bats and Bridges Technical Bulletin. California Department of Transportation.

Federal Highway Administration (FHWA). March 2011. Wildlife Crossing Structure Handbook; Design and Evaluation in North America.

Gauthreraux Jr., S.A., and C.G. Belser. 2006. Effects of artificial night lighting on migrating birds. In *Ecological Consequences of Artificial Night Lighting*, edited by C. Rich and T. Longcore, pp. 67-93. Washington D.C.: Island Press.

Gern, William. 1986. Melatonin: A discussion of Its Evolution and Actions in Vertebrates.

Hollis, G. E. (1975), Effect of urbanization on floods of different recurrence interval, Water Resour. Res., 11, 431–435.

H.T. Harvey and Associates. 2019. Caltrans Bat Mitigation: A Guide to Developing Feasible and Effective Solutions.

Konrad, C. P., and D. B. Booth (2002), Hydrologic trends associated with urban development for selected streams in the Puget Sound Basin, Western Washington, U.S. Geol. Surv. Water Resour. Invest. Rep., 02-4040.

Lagasse, et. al. 2009. Federal Highway Administrations' Hydraulic Engineering Circular No. 23 (HEC-23) - Bridge Scour and Stream Instability Countermeasures-Third Edition Vol.2.

La Sorte. February 2021. Seasonal Variation in the effects of artificial light at night on the occurrence of nocturnally migrating birds in urban areas. Environmental Pollution, Volume 270.

Longcore, T., and C. Rich. 2004. Ecological light pollution - Review. Frontiers in Ecology and the Environment 2:191–198.

McInroy, T, 2015. Trial of amphibian ladders within roadside gully-pots in Angus, Scotland: 2014 impact study.

MacCoy, D.E. and R.W. Black. 1998. Organic Compounds and Trace Elements in Freshwater Streambed Sediment and Fish from the Puget Sound Basin. USGS Fact Sheet 105-98.

SA-1, California Department of Fish and Wildlife – Bay Delta Regio, page 17 of 17

McLaren, et. al. 2018. Artificial light at night confounds broad-scale habitat use by migrating birds.

Miller, M. W. 2006. Apparent effects of light pollution on singing behavior of American robins. The Condor 108:130–139.

National Marine Fisheries Service – Southwest Region. September 2001. Guidelines for Salmonid Passage at Stream Crossings.

Poot, H., B. J. Ens, H. de Vries, M. A. H. Donners, M. R. Wernand, and J. M. Marquenie. 2008. Green light for nocturnally migrating birds. Ecology and Society 13(2): 47.

Schelbert, 2009. Down the Drain: How to Avoid Trapping Amphibians in Road and Sewer Drainage Systems–Designing Fauna Friendly Drainage Systems and Other Protective Measures.

Senate Bill 790: Wildlife Connectivity Actions: Compensatory Mitigation Credits, October 11, 2021. Bill Text - SB-790 Wildlife connectivity actions: compensatory mitigation credits. (ca.gov)

Stone, E. L., G. Jones, and S. Harris. 2009. Street lighting disturbs commuting bats. Current Biology 19:1123–1127. Elsevier Ltd.

Thome, et. al., 1999. Forest Stand Characteristics and Reproduction of Northern Spotted Owls in Managed North-Coastal California Forests.

Tian, et. al., 2021. A Ubiquitous Tire Rubber-Derived Chemical Induces Acute mortality in Coho Salmon. Science, 08 Jan 2021: Vol. 371, Issue 6525, pp. 185-189.

URS Corporation for the North Carolina Department of Transportation, Revised, May 2012. Bridges Stormwater Runoff from Bridges Final Report to Joint Legislation Transportation Oversight Committee.

Van Doren, et. al. 2017. High Intensity Urban Light Installation Dramatically Alters Nocturnal Bird Migration.

Van Hassel, J.H., J.J. Ney, and D.L. Garling, Jr. 1980. Heavy Metals in a Stream Ecosystem at Sites Near Highways. Transactions of the American Fisheries Society. 109 (6):636-643.

Wise, Sharon. 2007. Studying the Ecological Impacts of Light Pollution on Wildlife: Amphibians As Models. Biology Department, Utica College, Utica, NY.

Response to Comments: Non-Profit Organizations

Comment NPO-1, Sonoma County Bicycle Coalition, page 1 of 3

Promoting the bicycle for transportation and recreation

OFFICE:
750 Mendocino Ave, Ste 6
Santa Rosa, CA 95401

MAIL:
P.O. Box 3088
Santa Rosa, CA 95402

PHONE:
707-545-0153

EMAIL:
info@BikeSonoma.org

WEB:
www.bikesonoma.org

January 19, 2023

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

Dear Ms. MacCarthy:

Thanks for meeting with me yesterday regarding the Highway 1 Rumble Strip project. I still couldn't find the report on the Caltrans website so I dug out the *Press Democrat* public notices section to get the direct URL and download the report. I have a few questions.

Regarding the purpose of the project (p. 1.1):

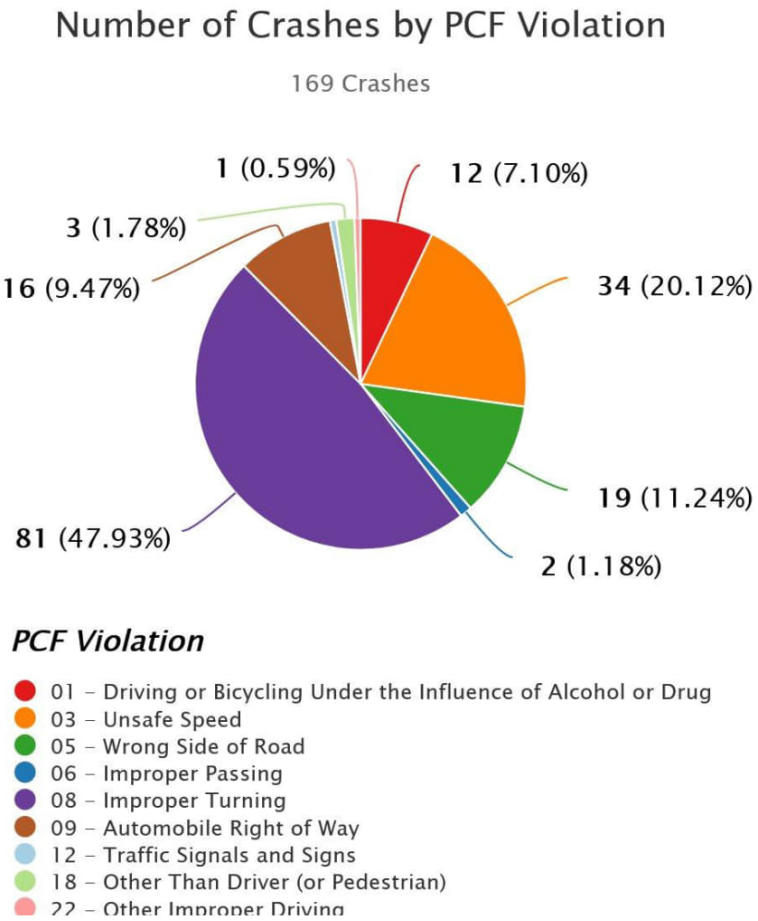
> *The purpose of the Project is to reduce the number and severity of head-on, cross-centerline, and run-off-road collisions in order to provide safe traffic operations on SR 1 and also to provide refuge areas for bicyclists to use when being passed by motorists on this stretch of the highway.*
> *The current Two-and-Three-Lane Safety Monitoring Program has identified several head-on collisions, sideswipe collisions, and fatal collisions on SR 1 in Sonoma County. The 2012 California Roadway Departure Safety Implementation Plan (CA-RDSIP) (FHWA 2012) also identified SR 1 in Sonoma County as having fatalities from run-off-road accidents that meet the threshold for countermeasures. CA-RDSIP promotes the implementation of centerline rumble strips on two-lane undivided rural highways with a pavement width of at least 20 feet when thresholds have been met.*

NPO-1-1

How many collisions? Where? I don't know anything about the Two-and-Three-Lane Safety Monitoring Program (and couldn't find it online) but I did search the Statewide Integrated Traffic Records System (SWITRS). There were 169 crashes on Highway 1 in Sonoma County in 2017-2021 (see chart below). Forty-eight percent were caused by improper turning and 20 percent by excessive speed. It is not clear to me how the installation of rumble strips would decrease these sorts of crashes.

Comment NPO-1, Sonoma County Bicycle Coalition, page 2 of 3

NPO-1-1 (cont.)



NPO-1-2

During our conversation you mentioned a similar project in Marin County, and the report states (p. 2.3):

> *To ensure the Project supports safe mobility for all users, a previous Caltrans centerline rumble strip project was analyzed. Centerline rumble strips were installed on SR 1 in Marin County, and collision data from before and after Project completion was analyzed. In conclusion, after the installation of centerline rumble strips, the percentage of bicycle-related collisions, head-on, and fatal collisions, have all decreased. Therefore, centerline rumble strip has been proven to increase the overall, multi-modal safety for all users.*

Comment NPO-1, Sonoma County Bicycle Coalition, page 3 of 3

NPO-1-2 (cont.)

Again, what is the source of the data? I'd like to see the actual numbers. Did that project also widen the shoulder?

NPO-1-3

I already mentioned the inadequacy of the project's public outreach (one public notice in the section of the newspaper that nobody reads). In that notice, as well as on p. 4.1 of the report, are listed three libraries where a hard copy of the report resides: Guerneville, Rohnert Park/Cotati, and Sonoma. Guerneville makes sense as it is the closest to at least some sections of the coast; Rohnert Park is a little odd but Sonoma? Did anyone look at a map of the county? The town of Sonoma is the farthest away from the coast. Did you mean the Central Branch of the Sonoma County Library, which is in Santa Rosa?

NPO-1-4

I am going to engage in further research and will likely have additional comments, but at this point I have not been convinced that adding rumble strips to this stretch of highway is going to result in the greatest increase in safety for cyclists. (If you have better data on this please point me to it.) For an expenditure of $23 million I'd rather see the shoulders widened and a dedicated bikeway installed along the entire corridor, reduced speed limits, and the installation of the "Bikes May Take Entire Lane" signs we discussed.

NPO-1-5

Finally, please do not repeat the line about "Caltrans is dedicated to complete streets/accessibility & safety for all users" immediately followed by a list of the reasons that whatever infrastructure change bike & pedestrian advocates are asking for "isn't feasible." I hear a version of this from every level of government and while it is likely intended to be reassuring, it is actually somewhat insulting. I will believe it when I see projects that put pedestrians and cyclists FIRST rather than treating us as an "add on" to roads that are designed primarily for autos.

Thanks for your consideration.

Sincerely,

Eris Weaver

Eris Weaver, Executive Director

Comment NPO-2, Sonoma County Bicycle Coalition, page 1 of 1

Promoting the bicycle for transportation and recreation

OFFICE:
750 Mendocino Ave, Ste 6
Santa Rosa, CA 95401

MAIL:
P.O. Box 3088
Santa Rosa, CA 95402

PHONE:
707-545-0153

EMAIL:
info@BikeSonoma.org

WEB:
www.bikesonoma.org

15 February 2023

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

Dear Ms. MacCarthy:

While we appreciate the effort to increase safety on Highway 1, this project seems to be considering bicyclists as an afterthought. We are concerned that a centerline rumble strip will deter cars from giving bicyclists a wide enough berth when passing. Given that many stretches of Highway 1 in Sonoma County have little or no shoulder, cars often need to cross the centerline to give bicycles a safe distance. With the impediment of a rumble strip, cars conceivably would be passing much closer to bicyclists than they are currently.

NPO-2-1

We recognize that Caltrans is aiming to address concerns around safe passage by widening the shoulder at 50 locations along the road. But the lack of a continuous shoulder puts the burden on bicyclists both to get out of the way of traffic and then move back into the travel lane when the shoulder disappears -- a situation that ultimately favors cars. If the project continues as proposed, visibility for bicyclists returning to the travel lane must be of paramount consideration when widening the shoulder.

We repeat our request for more transparency around the accident data that led to this project, as well as details regarding a similar, completed project on Highway 1 in Marin County and the effects it has had in reducing collisions there.

In a brief presentation to Sonoma's Countywide Bicycle and Pedestrian Advisory Committee in January, representatives from Caltrans acknowledged that the Sonoma County project does not "create the ideal bikeway" on Highway 1. A *continuous*, 6-foot-wide shoulder on Highway 1, however, would be a major step toward an ideal bikeway. We encourage Caltrans to put the $23 million allotted for this project toward ensuring that a viable shoulder extends the length of Highway 1 in Sonoma County to increase safety for bicycles and cars alike.

Sincerely,

Emily Shartin

Advocacy and Communications Coordinator
Sonoma County Bicycle Coalition

Comment NPO-3, Sonoma County Regional Parks, page 1 of 5

SONOMA
COUNTY
REGIONAL
PARKS

Bert Whitaker
Director

2300 County Center Dr.
Suite 120A
Santa Rosa, CA 95403
(707) 565-2041
SonomaCountyParks.org

Emailed: son1centerlinerumblestrip@dot.ca.gov

February 15, 2023

Arnica MacCarthy, Senior Environmental Planner
Caltrans, District 4
P.O. Box 23660, MS 8B
Oakland, Ca 94623-0660

Re: State Route 1 Centerline Rumble Strip Project
Draft Initial Study with Proposed Negative Declaration (January 2023)
State Route 1 – Sonoma County – PM 0.00 to 58.58

Dear Ms. MacCarthy:

Thank you for the opportunity to comment on the State Route 1 Centerline Rumble Strip Project. It is our understanding that the proposed project would include the installation of a centerline rumble strip and shoulder pavement widening to 6-feet at 50 spot locations which are identified in Tables 2-2 and 2-3. These improvements would improve the safety of motorists and bicyclists using State Route 1 to access many of the public parks and beaches on the coast. Widening the road pavement shoulders will also improve access for pedestrians. Sonoma County Regional Parks supports Caltrans efforts in making State Route 1 safer for motorists and bicyclists.

Regional Parks is working on the development of several sections of the California Coastal Trail which will also provide a safe pathway for bicyclists and pedestrians along the State Route 1 corridor. The specific Coastal Trail sections are identified in the subsequent paragraphs.

Timber Cover Trail (PM 34.63 to PM 38.16)
In 2015, Regional Parks completed the Timber Cove Trail Feasibility Study which evaluated a 2.5-mile-long preferred trail (aka Coastal Trail) alignment from Stillwater Cove Regional Park on the north end to Fort Ross State Historic Park on the southern end (PM 34.63 to PM 38.16). Parts of the preferred trail alignment would be located within the State right of way.

NPO-3-1

Per Table 2-3. Shoulder Widening Locations (ISND), no shoulder widening is proposed from PM 34.63 to PM 38.16 where a section of the proposed Coastal Trail would be located. If the shoulder widening limits are expanded at a later date to include PM 34.63 to PM 38.16, please contact and coordinate with Regional Parks. There may be opportunities where the shoulder widening could help improve sections of the Coastal Trail. Attached for reference are typical trail cross sections showing how bicycle and

Comment NPO-3, Sonoma County Regional Parks, page 2 of 5

NPO-3-1 (cont.)

SONOMA COUNTY REGIONAL PARKS

Bert Whitaker
Director

pedestrian use can be accommodated within the State Route 1 corridor. The trail cross sections were taken from the Timber Cove Trail Feasibility Study.

Stewarts Point Ranch Trail (PM 48.74 to PM 48.20)
In March 2022, Regional Parks completed the Initial Study and Mitigated Negative Declaration for the North Coast Trails Project (aka Stewarts Point Ranch Trail and Kashia Coastal Reserve Trail). This section of the Coastal Trail is located off the highway on the west side of State Route 1. The trail connects to the highway at PM 48.74 and PM 48.20. Per Table 2-3. Shoulder Widening Locations (ISND), no shoulder widening is proposed from PM 48.74 to PM 48.20. If the shoulder widening limits are expanded at a later date to include PM 48.74 to PM 48.20, please contact and coordinate with Regional Parks.

Kashia Coastal Reserve Trail (PM 44.72 to PM 45.87)
This section of the Coastal Trail is on the west side of State Route 1. There are seven (7) general locations where the proposed trail alignments are located near or within the State Route 1. The seven locations are identified at PM 44.72, 44.82 (drainage), 44.97 (drainage), 45.32 (drainage), 45.54 (drainage), 45.68 (drainage) and 45.87. It appears that the proposed shoulder pavement widening at SB#38 (Location 54) is in proximity to PM 45.32.

Regional Parks is planning to advertise for construction bids for the North Coast Trails project in winter 2023 and completing trail construction in 2025. It is our understanding that Caltrans plans to start construction of the centerline rumble strip and shoulder pavement widening in January 2025. As Caltrans gets closer to finalizing the project schedule, please contact Regional Parks so that we can 1) review and provide input on the Caltrans improvement plans and 2) coordinate our construction activities.

If you have any questions, please contact me at 707-565-3348 or ken.tam@sonoma-county.org

Sincerely,

Kenneth Tam
Park Planner II

Enclosures: Timber Cove Trail Feasibility Study – Sheets 23, 24, 25

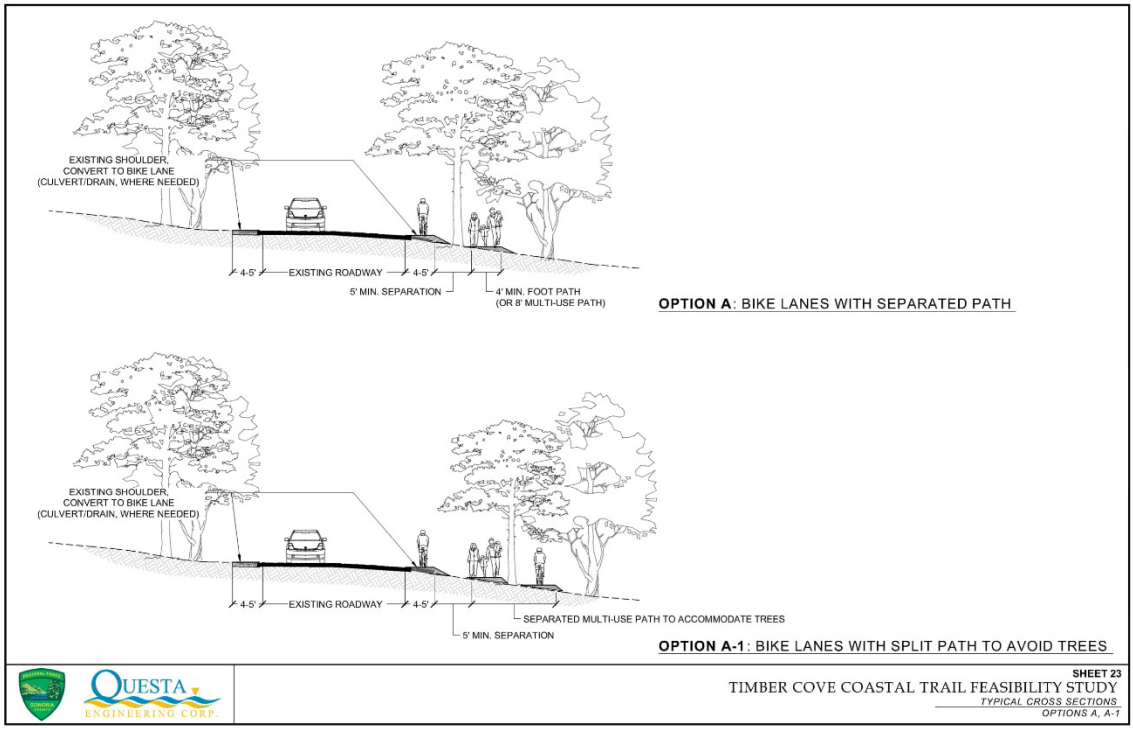
c: SPI: Stevan Hunter
Regional Parks: Steve Ehret, Mark Cleveland
Steven Schmitz, Sonoma County Transit, SCBPAC, CBPAC

S:\Planning\Administrative\Responsible Agency and Referral Letters\Caltrans Hwy 1 Centerline Rumble Strip\Caltrans Hwy 1 Rumble Strip RP comments 2-14-2023.docx

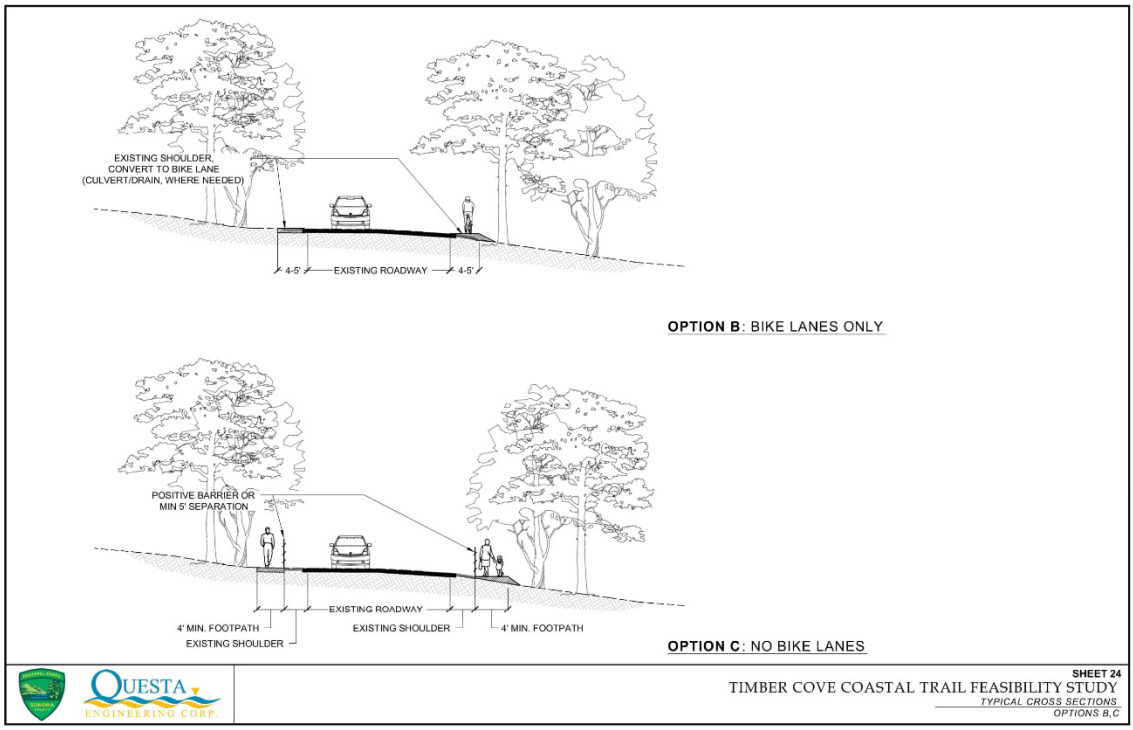
Page | 2 of 2

2300 County Center Dr.
Suite 120A
Santa Rosa, CA 95403
(707) 565-2041
SonomaCountyParks.org

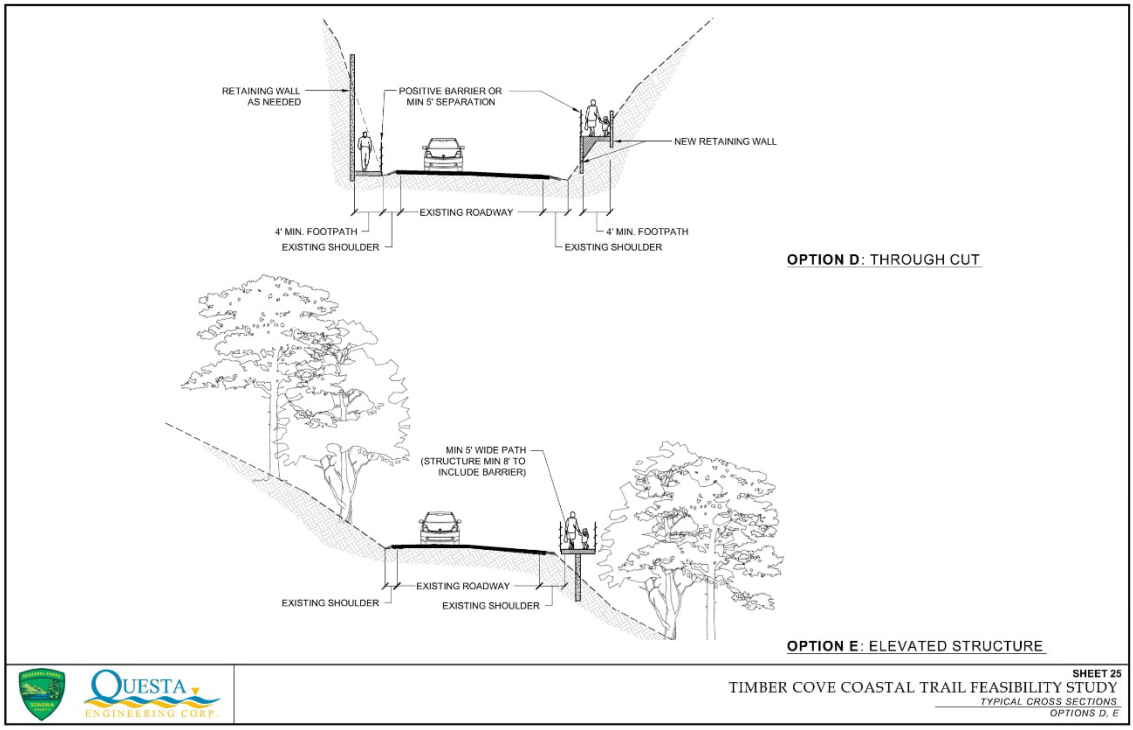
Comment NPO-3, Sonoma County Regional Parks, page 3 of 5



Comment NPO-3, Sonoma County Regional Parks, page 4 of 5



Comment NPO-3, Sonoma County Regional Parks, page 5 of 5



Responses to Comments: Individuals

Comment IND-1, Brandyn Simpson, page 1 of 1

From: Brandyn Simpson <[redacted]>
Sent: Saturday, January 28, 2023 7:22 PM
To: Sonoma 1 Center Line Rumbel Strip@DOT <son1centerlinerumblestrip@dot.ca.gov>
Subject: Study

EXTERNAL EMAIL. Links/attachments may not be safe.

IND-1-1

I received the notice today the 28th of January. How many came to the meeting? I would think you might not be getting much controversy if this is any example of notice to the public. I think the bike riders should have separate paths for riding, the roads in this part of the County are too narrow for the bike riders. I'm surprised there are not more accidents. Brandyn Simpson, Occidental, CA

Comment IND-2, Claudia Collins, page 1 of 1

From: Claudia Collins <[redacted]>
Sent: Sunday, January 29, 2023 7:56 AM
To: Sonoma 1 Center Line Rumbel Strip@DOT <son1centerlinerumblestrip@dot.ca.gov>
Subject: Hwy 1 Marin County to Russian RIver/ Turnouts

EXTERNAL EMAIL. Links/attachments may not be safe.

Hello,

IND-2-1

My family has had a home on Hwy 1 for 50 years at Portuguese Beach. I understand that two turnouts are planned in the 20 mile span between Hwy 1 and Russian River. As early as 20 years ago, this probably would have been sufficient but not any longer. This stretch of the Sonoma Coast is very crowded now, at least on the weekends. There are many mobile homes and many vehicles, and bicycles in general. The ocean side of the highway has very little room for error; we need many more turnouts in this area and they should be paved for safer travel. Impatient drivers will pass on a solid line if slower drivers don't have a chance to use available turnouts which has caused cars to go over the cliff as well as many fatalities.
Please, please, include more turnouts on this very popular 20 mile stretch of Hwy 1.

Thank you,
Claudia Collins

Comment IND-3, Steve Dee, page 1 of 1

From: Steve Dee <[redacted]>
Sent: Tuesday, January 31, 2023 10:27 AM
To: Sonoma 1 Center Line Rumbel Strip@DOT <son1centerlinerumblestrip@dot.ca.gov>
Cc: Gary.helfrich@sonoma-county.org
Subject: State Route (SR) 1 Centerline Rumble Strip Project (IS/ND)

EXTERNAL EMAIL. Links/attachments may not be safe.

Dear Amica MacCarthy,

Thank you for the opportunity to review and comment on the proposed SR 1 Rumble Strip project. Although the proposed project would provide certain benefits to the motoring public, it at same time may create potential impacts that neighboring land owners and cyclists have expressed concern over, namely noise and parking conflicts along SR 1. For example, the proposed 6-ft wide shoulder along SR 1 will create a parking supply for commerical and recreational land uses in Jenner thereby increasing traffic congestion and circulation conflicts, as well as conflicts with bicyclists that would otherwise use the new shoulders for a safe and efficent bike trail. Many conflicting land use activities already exist in Jenner so adding improvements such as the proposed project should be done with care.

Adding noise generators (Rumble strips) and a tacit parking supply along SR 1 by widening the shoulder width could create secondary impacts under the provisions of CEQA. Therefore, please respond to the following comments on the subject proposed Negative Declaration:

IND-3-1 1. Identify and mitigate to a less-than-significant level the potential noise impacts on neighoring land uses that will be generated by the proposed rumble strips.

IND-3-2 2. Identify and mitigate to a less-than-significant level the potential conflict between parking supply created by the proposed shoulder widening and the need for an adequate and safe bicycle path.

Feel free to contact me at [redacted] if you have any questions.

Thank you,

Steve Dee

Comment IND-4, Pat Paterson, page 1 of 2

From: Pat Paterson <[redacted]>
Sent: Wednesday, February 15, 2023 12:00 AM
To: Sonoma 1 Center Line Rumbel Strip@DOT <son1centerlinerumblestrip@dot.ca.gov>
Subject: Rumble strips and turnouts

EXTERNAL EMAIL. Links/attachments may not be safe.

Attn: Arnica MacCarthy

Rumble strips

IND-4-1

Rumble strips should not be used in areas where the roadway frequently floods. Traffic must drive around the frequent flooding and ponding on the sides of highway 1. My wife had to detour on to State Route One in Marin County when Valley Ford Road flooded. It was dark and she did not realize there were newly installed rumble strips until she crossed the center line and was assaulted by the rumble strips. You should not put rumble strips where the roadway habitually floods or ponds for that reason. State Route 1 frequently floods in the S-curves just north of Valley Ford Road, mile post 1SON00.50 to 1SON01.00 and rumble strips should never be installed there.

Turnouts

IND-4-2

When I attended the Sonoma County MAC meeting regarding the widening of SR 1's shoulders and brought up the subject of turnouts, I was told to email you.

There are only 4 turnouts in the 20 miles between the Sonoma County Line the Russian River Bridge. They are too short for vehicles that are large enough to impede traffic to use. Some are poorly placed. When you widen the shoulders on State Route 1 please address the deficient turnouts. I am a retired highway patrolman that has worked/lived off SR 1 for 25 years. I collect antique trucks and have had a commercial license with endorsements.

Valley Ford Turnout southbound 1SON02.20 which is just south of Valley Ford Freestone Road, is properly located in a flat straight away and even though it is parallel to the old highway it is too short. The old highway is so wide that Caltrans sometimes parks equipment on it. Usually, the traffic that use this turnout are lost motorist updating their navigation system (as seen on the current Google Street View).

Bean Ave Turnout northbound 1SON12.40 which is at Bean Ave, is only about a half of a dozen car lengths long and on a sharp curve that limits view of approaching traffic. This turnout ends at the creek. The main use of this turnout is bird watching.

Salmon Creek Beach Turnout 1SON12.70, is properly located in a very long straightaway however it still too short for descending heavy vehicles to normally use. It is also poorly marked. The "Turnout" sign shares a signpost with a tsunami evacuation route sign which is much larger and brighter than the turnout sign. The pavement is not marked

1

Comment IND-4, Pat Paterson, page 2 of 2

IND-4-2 (cont.)

with a red border, "Turnout" or "No Parking" so it fills up with parked cars during good weather. Only one No Parking sign is left. The other wooden No Parking signposts have been broken off.

2

Comment IND-5, Les and Sheryl Erbst, page 1 of 1

1/28/23, 4:34 PM Text

Att: Amica MacCarthy, Senior Environment Planner
Caltrans District 4
PO Box 23660,MS-8B
Oakland, Ca.94623-0660

Ms. MacCarthy,

IND-5-1

I am writing in protest of the planned State Rt. 1 Centerline Rumble Strip Project. I received the small post card notice on January 28 2023 so I was not aware and able to attend the zoom meeting held on January 19.
I reviewed the proposal and found that one of the spot locations is directly in front of my house apparently the only such situation in the entire length of the project. That would be SB#2 Location 6 and my address is [redacted]. My house sits less than 100 feet from the road and the addition of a rumble strip would have devastating effects on our quality of life. There is also less than 25 feet from the highway to the easement road in front of my house and losing an additional 6 feet for a bicycle lane would create an even smaller and unsafe buffer between the highway and easement road.
The loud noise from the rumble strip would be heard and felt inside our house ruining our quality of life and potentially decreasing our property value and desirability of our property. It would disturb and potentially frighten our pets and livestock. We would be unable to sleep or eat in peace and could have a negative impact on our mental and physical health.
Obviously this was not taken into consideration by Caltrans when doing your impact study so I would ask that this spot location be removed and that the rumble strip not be installed in front of our home. There is no need for it as the piece of road sits between two sharp bends in the highway that requires traffic to go slowly. In my 27 years here there has never been an accident caused by anyone crossing the center line.
Please contact me asap to discuss and resolve this matter.
Thank you,

Les and Sheryl Erbst
[redacted]

Table F-1. Responses to Comments

Commenter	Comment Number	Comment	Response
Ms. Erin Chappell, Regional Manager, California Department of Fish and Wildlife – Bay Delta Region	SA-1-1 COMMENT 1: Lake and Streambed Alteration Program Notification	**Issue:** The IS/ND does not provide adequate detail of the permanent and temporary impacts that have the potential to occur within the bed, bank, channel, and riparian habitat associated with the Project. This could have the potential for a substantial adverse effect on riparian habitat. **Recommendation:** CDFW recommends the Lead Agency include a determination on the permanent and temporary impacts to bed, bank, channel, and upland riparian habitat associated necessary to widen the roadway and modify culverts. The updated IS/ND should also specify which segments of the roadway will require roadside slope increases and additional hardscape installations. **Recommendation 1 – Seasonal Work Window:** Measure PF-BIO-1 is in the IS/ND should be updated to incorporate specific seasonal work windows within aquatic features that may impact bed, bank, channel, or riparian habitat. The recommended work window is June 15 to October 15. The measure should also be updated to include language that indicates no work shall occur within 24 hours of a rain event predicated at a chance of 40% or more according to the National Weather Service. **Recommendation 2 – Culvert Impact Inventory Report:** A culvert impact inventory should be developed that placed additional columns in Table 1-1 and/or Table 2-3 of the IS/ND. The additional columns should include a column for temporary impacts, permanent impacts, and a column for fish passage status in the Fish Passage Database (Fish-PAD; Biological Information and Observation System (BIOS); DS-69). A column should also be included for terrestrial crossing potentials at each culvert location within the Project limits. A final column should be included that identifies if excavation and/or increase of the slope is necessary to install Project related components identified in the Project Description of this comment letter. **Recommendation 3 – Geo-Textiles, Filter-Fabric and Cementitious Material:** CDFW recommends the design or re-design of any culverts within the Project does not employ geo-textils, filter fabric, or cementitious material within rock slope protection fields of drainage outfalls. A granular filter design should follow the principles outlined in the *Federal Highway Administrations' Hydraulic Engineering Circular No. 23 (HEC-23) – Bridge Scour and Stream Instability Countermeasures – Third Edition Volume 2* (Lagasse et al, 2009) and *Caltrans' Design Information Bulletin No. 87-01 – Hybrid Streambank Revetments* (Caltrans, 2014) for design guidance on granular filter designs, In the event work is occurring within a salmonid bearing system, fish spawning gravel should be incorporated into the channel design where appropriate. Size selection should be conducted in close coordination with CDFW. Gravel should consists of clean, creek-run rock, 0.25 to 10.2 centimeters in size. **Recommendation 4 – Restoration and Mitigation Planning:** CDFW strongly recommends the Lead Agency develop a mitigation plan in coordination with CDFW for any permanent Project impacts that cannot be avoided that will be subject to LSA permitting and include that plan as park of the updated IS/ND. The mitigation concept provided in BIO-AMM-19 for restoration, enhancements to mitigation at a 1:1 ratio for permanent impacts does not appear to appropriately reduce potentially significant impacts to fish and wildlife resources below a level of significance. The mitigation plan should include in detail any proposed on and/or off-site mitigation needs necessary to compensate for net-loss of river or stream resource including, but not limited to, tree trimming, tree removals, hardscape materials and geo-textil fabric within the bed, bank or channel of a stream, loss of riparian vegetation and mature trees, and expansion of existing infrastructure footprint(s). CDFW recommends proposed mitigation plan(s) include details such as engineered design drawings, mitigation location(s), proposed actions, monitoring, success criteria and any corrective actions. **Recommendation 5 – Culverts in High Fire Hazard Severity Zones:** Figure 3-1 of the IS/ND includes 15 High Fire Hazard Severity Zones maps that indicate the Project occurs within Moderate, High and Very High Fire Severity Zones. CDFW recommends the reliance on non-plastic-based materials in instances where culverts are modified, replaced, or reconstructed to prevent the potential for fire events to melt the material and increase micro-plastic pollution within the environment. CDFW recommends the use of corrugated metal pipe or steel pipes for permanent culvert replacement or modification applications and when employing temporary stream diversions systems in High to Very High Fire Severity Zones.	The Project's biological study area (BSA) contains California Department Fish and Wildlife (CDFW) jurisdictional streams and riparian habitat. CDFW stream jurisdiction extends to the top of bank or, if present, the edge (i.e., drip line) of the riparian canopy. Constructed roadside drainage ditches and culverts included in the Project scope of work were evaluated and determined to not be considered CDFW-jurisdictional streams. CDFW-jurisdictional streams are present adjacent to three locations (Locations 9, 29, and 34) within the BSA; however, no impacts to bed, bank, or channel are proposed. A total of 0.109 acre of CDFW-jurisdictional riparian habitat was delineated within the BSA. The Project would temporarily impact 0.016 acre and permanently impact 0.005 acre of CDFW-jurisdictional riparian habitat. Impacts to riparian habitat would result from clearing for shoulder widening and access for equipment and staging. All impacted riparian habitat would be recontoured and impacted areas would be revegetated following Project completion and therefore impacts to CDFW-jurisdictional streams and riparian habitat would be less than significant and Caltrans determined that no changes to the FED are warranted. The recommended seasonal work window of June 15 to October 15 is not proposed for this Project because there is no need for a seasonal avoidance in regards to CEQA impacts for this Project. Culvert modifications arenot included in the Project scope of work and therefore a culvert impact inventory report is not warrented. In the unlikely event that culvert modification is deemed necessary during PS&E phase, Caltrans will consider CDFW-recommended culvert design, including non-plastic-based materials, and looks forward to coordinating with CDFW during that time. There are no Project impacts that warrant mitigation under CEQA. In the event that design changes result in significant impacts to fish and wildlife resources, coordination with HabCon will be initiated; however, Project impacts to fish and wildlife resources are considered less than significant under CEQA.

Commenter	Comment Number	Comment	Response
		Recommendation 6 – Design Coordination with HabCon and Conservation Engineering: Early coordination with the CDFW Habitat Conservation Program (HabCon) and the Conservation Engineering Branch is recommended to provide review and analysis or any proposed staging, access roads, structures or Project elements with the potential to impact fish and wildlife resources. Provide the CDFW Conservation Engineering Branch engineered drawings, a basis of design report and Project specifications during the initial design process, prior to design selection and re-initiating design consultation at 30% design at minimum, and through the permitting process for review and comment.	
Ms. Erin Chappell, Regional Manager, California Department of Fish and Wildlife – Bay Delta Region	SA-1-2 COMMENT 2: Bridge Runoff Capture Systems	**Issue**: The IS/ND indicates 4.05 acres of impervious surface will be impacted and the roadway widening will increase the surface area of impervious surfaces throughout the Project. The Project Description also indicates that numerous culverts and drainage systems have the potential to be modified. Impervious surfaces, stormwater systems, and storm drain outfalls have the potential to significantly affect fish and wildlife resources from polluted water by altering the hydrography of natural streamflow patterns via concentrated run-off that enters streams and associated systems from the road. The IS/ND PF-BIO-5 indicates bio-filtration strips and swales will be employed to the maximum extent practicable. The Project Description wording is vague because it does not indicate if the installation of any new bio-filtration strips or swales will actually occur or where they may be placed. This could have the potential for a substantial adverse effect on sensitive species. **Evidence the impact would be significant:** Urbanization (e.g., impervious surfaces, stormwater systems, storm drain outfalls) can modify natural streamflow patterns by increasing the magnitude and frequency of high flow events and storm flows (Hollis 1975, Konrad and Booth, 2005). A review by Eisler (1987) indicates elevated incidence of tumors and hyperplastic diseases, and some circumstantial evidence about cancers, in fish in areas with high sediment Polycyclic Aromatic Hydrocarbon (PAH) levels. Arsenic, cadmium, chromium, lead, mercury, nickel, and zinc have been detected in streambed sediments and Stormwater Runoff in the tissue of fish, indicating bioaccumulation of these metals in the environment (MacCoy and Black, 1998). Lead concentrations in benthic insects, and nickel and cadmium levels in certain fish were found to be related to traffic density and sediment levels of these constituents (Van Hassel, 1980). Acute toxicity and mortality have also been tied to immediate road runoff from a compound occurring in tires, 6PPD-Quinnone, that has been linked to Coho mortality (Tian, 2021). **Recommendation 1: Bridge Capture Runoff System:** CDFW recommends the Project design incorporate specific bio-filtration strips, swales and other storm water capture run-off systems throughout the Project. The storm water capture runoff systems shall prevent direct runoff of untreated water from the roadway into creeks, drainages or swales. The stormwater runoff system shall direct runoff to a land-based bio-filtration system or a mechanical filter system to avoid, minimize and treat any discharge water. Reference the Bridges Stormwater Runoff from Bridges Final Report to Joint Legislation Transportation Oversight Committee, beginning on page 2-12 of the report for examples of an appropriate runoff capture system design.	The new impervious surface created by the shoulder widening could increase runoff; however, it has been determined that the existing drainage facilities, such as cross culverts and roadside ditches, have the capacity to handle this slight increase and the existing drainage patterns at the 50 shoulder widening spot locations would be maintained. Additionally, the total new impervious surface due to the shoulder widening would be 4.05-acres along the 58.58 miles of the Project corridor, and is considered only a minor increase. No bridge or culvert modifications are proposed in the Project scope of work. The Project is anticipated to establish permanent erosion control measures such as bio-filtration strips or swales to receive storm water discharges from the highway or other impervious surfaces. The locations of bio-filtration strips or swales will be determined during the PS&E phase. This would further minimize the potential for new impervious surfaces to significantly affect fish and wildlife resources by preventing direct runoff of untreated water from the roadway into creeks, drainages, or swales and therefore impacts to bed, bank, channel, and upland riparian habitat would be less than significant.
Ms. Erin Chappell, Regional Manager, California Department of Fish and Wildlife – Bay Delta Region	SA-1-3 COMMENT 3: Tree Removal Analysis	**Issue:** Page 3-6, Section 3.3.1 of the IS/ND indicates that trees will be trimmed or removed throughout the Project. The IS/ND does not provide a map, figure, or specific inventory of trees proposed for trimming or removal which would allow CDFW to assess the impact of the activity to fish and wildlife resources as it pertains to trees. This could have the potential for a substantial adverse effect on riparian habitat and sensitive species. **Recommendation 1 - Tree Inventory Report:** Provide a tree inventory that includes a map or figure that identifies the location, species, diameter at breast height, estimated age, and overall health of all trees proposed for removal and trimming. **Recommendation 2 - On-Site Preservation of Forest Trees and Riparian Trees:** Impact to trees should be avoided to the maximum extent feasible and additional designs should be incorporated to minimize impacts on mature native trees and riparianresources. **Recommendation 3 - Restoration and Mitigation Planning: Reference Recommendation 4 - Restoration and Mitigation Planning from the COMMENT 1:** Lake and Streambed Alteration Program Notification section of this comment letter.	There are 73 trees present within the BSA; of these, 41 trees occur within the Project footprint. 17 of the trees are located within CDFW-jurisdictional riparian habitat; of these, 12 riparian trees are within the Project footprint. Where trees are adjacent to shoulder widening, avoidance and/or minimization measures, such as design modifications and delineating trees with environmentally sensitive area fencing, would be evaluated during PS&E and implemented in construction so impacts to mature native trees and riparian resources would be avoided to the maximum extent feasible, and therefore impacts to fish and wildlife resources related to tree removal would be less than significant.

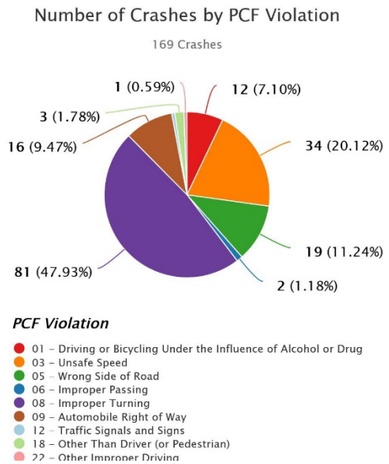
Commenter	Comment Number	Comment	Response
Ms. Erin Chappell, Regional Manager, California Department of Fish and Wildlife – Bay Delta Region	SA-1-4 COMMENT 4: Northern Spotted Owl Avoidance and Minimization	**Issue:** Northern Spotted Owl (NSO) is federally listed as threatened under the Endangered Species Act (ESA) and is CESA listed as threatened. The potential impacts identified within the IS/ND to suitable NSO habitat may not adequately describe all the potential permanent and temporary impacts to NSO habitat. If the proposed measures are not updated as identified in the section below for NSO, the Project could have the potential for a substantial adverse effect on sensitive species. **Evidence the Impact is Significant:** The Project occurs within potential NSO habitat according to Spotted Owl Predicted Habitat (BIOS; DS-2185) and within NSO Habitat for Connectivity Modeling (BIOS; DS-876). In addition, 200 detections occur within 5 miles of the Project, 6 of those detections occur within 0.33 to 1.07 miles as noted on page 3-17 and 3-18 of the IS/ND. The Project also proposes the removal of an unspecified number of trees and indicates impact to 0.178 acres (temporary and permanent combined) of NSO habitat. CDFW recommends additional habitat analysis is conducted as the impact footprint may be larger than initially described. NSO is typically associated with old-growth or mature forests, but NSO can utilize a wide variety of habitat types, including oak woodlands. They exhibit flexibility in their use of different forested areas for nesting, roosting, and feeding requirements. Typical habitat characteristics include a multi-storied structure and high canopy cover (Thome, 1999). Impacts from the Project would be significant if NSO nests or nesting trees were cut down or if nearby nesting NSO were exposed to elevated sound levels or human presence that would cause nest abandonment. **Recommendation 1 Nest Avoidance Buffer and Seasonal Work Window:** AMM BIO-6 and AMM BIO-7 should be updated as follows: To reduce impacts to less-than- significant, no Project activities shall occur within 0.25 miles of NSO nesting habitat from March 15 to August 31, unless NSO surveys have been completed by a qualified biologist following the U.S. Fish and Wildlife Service (USFWS) Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls, dated (revised) January 9, 2012 and the survey report is accepted by CDFW in writing. If breeding NSO are detected during surveys, a 0.25-mile no-disturbance buffer zone shall be implemented around the nest. NSO surveys shall be conducted for each year Project construction occurs. No Project activities shall occur within the buffer zone until the end of the breeding season, or a qualified biologist determines that the nest is no longer active, unless otherwise approved in writing by CDFW. Alternate buffer zones may be proposed by a qualified biologist after conducting an auditory and visual disturbance analysis following the USFWS guidance, Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California, dated October 1, 2020. Alternate buffers must be approved in writing by CDFW. Survey results shall be provided to the Spotted Owl Observations Database at https://wildlife.ca.gov/Data/CNDDB/Spotted-Owl-Info. If NSO are detected, CDFW and the USFWS shall be immediately notified. **Recommendation 2 California Endangered Species Act Consultation for Northern Spotted Owl:** If Project activities may result in take of NSO, the Project proponent shall apply for and obtain a CESA Incidental Take Permit from CDFW prior to beginning the Project.	A habitat assessment survey for NSO was performed on May 5 and 6, 2022 to determine whether suitable NSO breeding habitat was present at, or adjacent to, each of the Project widening locations, and whether conditions within the surrounding BSA support suitable nesting or foraging habitat. The survey found that there is suitable NSO forest habitat (Douglas fir [*Pseudotsuga menziesii*] forest, redwood [*Sequoia sempervirens*] forest, or bishop pine [*Pinus muricata*] forest) present within the BSA. However, where these trees are adjacent to shoulder widening, avoidance and/or minimization measures, such as design modifications and delineating trees with environmentally sensitive area fencing, would be evaluated during PS&E and implemented in construction so impacts to suitable NSO nesting trees would be avoided to the maximum extent feasible. Therefore, potential impacts to NSO would be limited to temporary impacts to NSO habitat associated with vegetation removal and indirect auditory and visual disturbance to NSO during construction activities. Because vegetation removal would occur along or adjacent to roadway embankment that is subject to regular disturbance from a highly traveled roadway (SR 1), the temporary loss of this potential habitat is not likely to adversely affect the local population. Additionally, all temporarily disturbed areas will be revegetated following construction. Based on the duration of disturbance and minimal level of construction efforts required to install the centerline rumble strips and shoulder widening, these actions are not expected to rise to the level of harm as defined under CESA. Additionally, the closest NSO Activity Center, associated with six detections of NSO ranging from 0.33 mile to 1.07 miles away from Location 33, is outside of the 165-foot auditory and visual disturbance buffer. With implementation of PF-BIO-9, as well as AMM-BIO-6 and AMM-BIO-7 pre-construction NSO surveys would be conducted during the NSO nesting season within 165 feet of suitable NSO habitat and suitable buffers would be implemented as necessary to ensure no nesting NSO are present within the auditory and visual disturbance buffer. Therefore, the implementation of the nest avoidance buffer and seasonal work window measure proposed by CDFW would not be necessary and impacts to NSO and its habitat would be less than significant. The Project is not anticipated to result in take of NSO and therefore a CESA Incidental Take Permit from CDFW will not be obtained.
Ms. Erin Chappell, Regional Manager, California Department of Fish and Wildlife – Bay Delta Region	SA-1-5 COMMENT 5: Terrestrial Wildlife Connectivity	**Issue:** The Project has the potential to significantly impact terrestrial wildlife connectivity over a 58.58-mile linear segment of highway on SR-1 in Sonoma County. The surrounding habitat supports threatened, endangered, special-status and native species including, but not limited to, California Giant Salamander (CGS), Foothill Yellow-Legged Frog (FYLF), California Red-Legged Frog (CRLF) and Red-Bellied Newt (RBN). Page 2-5 to 2-6 of the IS/ND notes drainage system extensions, modifications and roadway widening may require an increase in the slope of the road invert to 2:1. The increase of the slope at the edge of the roadway or modification of multiple culverts may have the potential to create a series of impassable barriers over a 58.58-mile segment of SR-1 that could substantially interfere with the movement of small herpetofauna. **Evidence the impact would be significant:** California wildlife is losing the ability to move and migrate as habitat conversion and built infrastructure disrupt species habitat and cuts off migration corridors (Senate Bill 790; SB-790; https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220SB790). The current baseline condition of the area proposed for construction represents a semi-permeable barrier to wildlife connectivity. Larger wildlife species may cross at their own risk of injury or mortality but smaller species such as herpetofauna would most likely not cross the highway successfully without incurring	Caltrans acknowledges that the current highway hinders the movement and dispersal of small animals, however all impacts of the Project are assessed in comparison to this existing condition. The Project does not propose significant impacts under CEQA due to culvert modifications and/or an increase in the slope at the edge of the highway along the 58.58-mile Project corridor. None of the Project components would create a non-permeable barrier to terrestrial wildlife connectivity for herpetofauna. While Caltrans agrees that adding terrestrial connectivity elements such as wildlife friendly culverts, under-crossings, elevated causeways and over-crossings, as well as drainage escape structures such as escape ramps, floating refuge buckets, and amphibian ladders would be beneficial additions to SR 1 in Sonoma County, those design features are not part of the Project scope and therefore will not be included in this Project. However, Caltrans will consider scoping for these design features for a future project along SR 1 in Sonoma County. If the Project design changes during a later project phase, and culvert reconstruction is added to the scope, Caltrans will implement CDFW's recommendation of installing wildlife friendly culverts.

Commenter	Comment Number	Comment	Response
		injury or mortality. Further modification of the culverts and an increase in the slope at the edge of the roadway along the 58.58- mile segment of SR-1 has the potential to create a non-permeable barrier to terrestrial wildlife connectivity for herpetofauna, even if the construction occurs in focused segments. Page 3-16 of the IS/ND indicates the Project occurs within the current range of CRLF and 20 California Natural Diversity Database (CNDDB) occurrences reside within 2 miles of the Project. Numerous aquatic resources (e.g., drainages, streams, creeks, and ponds) are also located within 2 miles of the Project. Page 3-17 of the IS/ND indicates FYLF occurs in several creeks in the vicinity of the Project, and suitable non-breeding FYLF habitat is present throughout the Project. There are 11 CNDDB occurrences of FYLF within 2 miles of the Project, most of which are located toward the northern end of the Project limits. Page 3-22 indicates 14 CNDDB occurrences of CGS within 2 miles of the Project. Additionally, surveyors discovered two juvenile CGS within a creek in the Caltrans right-of-way adjacent to Location 49. Page 3-22 of the IS/ND indicates three CNDDB occurrences of RBN within 2 miles of the Project. Wetlands, waters, and riparian and forested areas within the Project vicinity could provide suitable habitat for these species. The Project should incorporate a wildlife connectivity analysis and highway system facility modification designs to ensure connectivity remains and the potential for mortality is reduced for herpetofauna. **Recommendation Mitigation Measure 1 Wildlife Connectivity:** Terrestrial connectivity elements such as wildlife friendly culverts, under-crossings, elevated causeways and over-crossings should be programmed into the Project as design features. To inform design and placement of connectivity features, the Lead Agency shall develop a wildlife movement study. The study should occur over a minimum period of 12 months prior to the initiation of construction and preferably be incorporated into the draft IS/ND. The study shall occur within the limits of the proposed Project to develop a baseline understanding of the areas where wildlife movement and crossings are most prevalent. The study should also be utilized to inform Project design to identify areas where wildlife crossing structure(s) installation(s) would result in the largest benefit to rare, threatened, and endangered species, as well as, special-status species and non-special status species for wildlife connectivity. Analysis during the 12-month study shall be utilized to determine the type, size and number of structures that would be most beneficial to facilitate wildlife connectivity (new wildlife crossing culverts, modification of existing culverts, wildlife crossing bridges, etc.). Upon completion of the Project, the wildlife connectivity structures should be studied for an additional 12-month period, at minimum, to determine the effectiveness of structure utilization by wildlife. The protocol for the baseline survey, post-construction surveys, site selection criteria and design criteria for the development of the wildlife connectivity structures should follow the protocols outlined in; The California Department of Transportation (Caltrans), Wildlife Crossings Design Manual (Caltrans, 2009) and the Federal Highway Administration Wildlife Crossing Structure Handbook Design and Evaluation in North America, Publication No. FHWA-CFL/TD-11-003 (FHWA, 2011). **Recommendation Mitigation Measure 2 Wildlife Connectivity:** The Lead Agency should develop a series of heat maps for target species along the SR-1 corridor using high value resource layers including, but not limited to, species presence/absence, drainages, culverts, creeks, road-strike data, and wildlife linkage corridors for pinpointing key wildlife crossing locations with high permeability and potential for use by target species. **Recommendation Mitigation Measure 3 Drainage Escape Structures:** The Lead Agency should design and implement, in coordination with the natural resource agencies, escape structures for small herpetofauna when drainage systems and culverts are not conducive for crossing and entrapment within the system is likely. Escape structure can include, but not be limited to, escape ramps, floating refuge buckets and amphibian ladders (McInroy, 2015 and Schelbert, 2009).	
Ms. Erin Chappell, Regional Manager, California Department of Fish and Wildlife – Bay Delta Region	SA-1-6 COMMENT 6: Fish Passage Assessment	**Issue:** Multiple potential fish passage barriers and unassessed locations exist within the identified Project limits. Senate Bill 857 (SB-857), which amended Fish and Game Code § 5901 and added § 156 to the Streets and Highways Code states in § 156.3, "For any project using state or federal transportation funds programmed after January 1, 2006, [Caltrans] shall ensure that, if the project affects a stream crossing on a stream where anadromous fish are, or historically were found, an assessment of potential barriers to fish passage is done prior to commencing project design. [Caltrans] shall submit the assessment to the [CDFW] and add it to the CALFISH database. If any structural barrier to passage exists, remediation of the problem shall be designed into the project by	No work is anticipated related to culverts or stream crossing and the Project will not affect a stream crossing on a stream where anadromous fish are, or historically were found. Therefore, a fish passage assessment is not required. Additionally, the wetlands and other waters that would be impacted by the Project are not suitable habitat for anadromous fish and therefore there is no potential for special-status fish species to occur within the Project footprint. If the Project scope changes in a later Project phase and therefore affects a stream crossing on a stream where anadromous fish are, or historically were found, then fish passage assessments

Commenter	Comment Number	Comment	Response
		the implementing agency. New projects shall be constructed so that they do not present a barrier to fish passage. When barriers to fish passage are being addressed, plans and projects shall be developed in consultation with the [CDFW].” The modification of unidentified culverts over 58.58 miles on SR-1 could substantially interfere with the movement of native resident or migratory fish. **Evidence the impact would be significant:** The Project contains stream crossings within areas mapped as historic or current watersheds where anadromous fish are, or historically were found. The species include, but are not limited to, Central California Coast Coho Critical Habitat and Range (BIOS; DS-3015 and DS-1277), California Coast Fall Chinook Salmon Range (BIOS; DS-1297) and Central California Coast Steelhead and Coastal Steelhead Trout Waters (BIOS; DS-1287 and DS-962). The decline of naturally spawning salmon and steelhead trout is primarily a result of the loss of appropriate stream habitat and the inability of fish to get access to habitat, according to reports to the Fish and Game Commission and by CDFW (CDFW, 1996). Restoration of access to historical spawning and rearing areas should be incorporated into the Project design through barrier modification, fishway installation, or other means (CDFW, 1996). **Recommendations:** If barriers or unassessed barriers noted within the Project limits are found to be a barrier to fish passage, remediation of the problem should be designed into the Project by the implementing agency as a Project feature in consultation with CDFW and other natural resource agencies. The fish passage section should discuss the current status of each crossing location noted within the Fish Passage Assessment Database (BIOS; DS-69) from Table 1-1 and Table 2-3 of the IS/ND. First pass and/or second pass fish assessments, as necessary, and images of the upstream and downstream ends of water conveyance structure should be included in the updated IS/ND. Presenting the information in table format with corresponding maps is also strongly recommended. **Recommended Mitigation Measure 1: Fish Passage Assessment:** To evaluate potential impacts to native fish species and fisheries resources, Caltrans should submit the assessment to the CDFW and add it to the CALFISH database. If any structural barrier to passage exists, remediation of the problem shall be designed into the Project by the implementing agency. New projects shall be constructed so that they do not present a barrier to fish passage. When barriers to fish passage are being addressed, plans and projects shall be developed in consultation with CDFW. CDFW shall be engaged prior to design in early coordination and at 30% design at minimum. **Recommended Mitigation Measure 2: Fish Passage Assessment Table:** The Lead Agency shall develop a table for incorporation into the IS/ND that notes all proposed locations of work identified in Table 1-1 and 2-3 of the IS/ND and provide a corresponding column that indicates known culverts within the location of the proposed work. The table should identify the Fish PAD ID number, barrier status and the results of any primary or secondary fish passage assessments. CDFW will need this assessment and information in order to process an LSA Agreement Notification for the proposed Project. **Recommended Mitigation Measure 3: Fish Passage Design Coordination:** Caltrans shall engage with CDFW in early and continued coordination before design commences as specified in **Recommendation 6 Design Coordination with HabCon and Conservation Engineering** from **the COMMENT 1: Lake and Streambed Alteration Program Notification** section of this comment letter.	would be conducted at that time, and Caltrans would submit the assessment results to CDFW and add it to the CALFISH database. If any fish passage barrier is identified during the assessment, remediation would be designed in consultation with CDFW. The Project would comply with Fish and Game Code section 5901 and would not install or maintain any device or structure that impedes the passing of fish up and down stream.
Ms. Erin Chappell, Regional Manager, California Department of Fish and Wildlife – Bay Delta Region	SA-1-7 COMMENT 7: Bat Assessment and Avoidance	**Issue:** Page 3-21 of the IS/ND indicates multiple locations have the potential to support bats or contain roosting trees or potential roosting structures and facilities. Multiple bat species are identified within the Project limits as having suitable habitat including, but not limited to; Big Brown Bat (BIOS; DS-1828); Brazilian Free-Tailed Bat (BIOS; DS- 2498); Townsends Big-Eared Bat (BIOS; DS-2496) and the Hoary Bat (BIOS; DS- 2493). The IS/ND does not identify the extent to which impacts may occur to bats or their habitat from modification of existing structures or the removal of trees, this could result in substantial adverse effect on sensitive species and riparian habitat. **Recommendation:** Modify measures AMM-BIO-16 and AMM-BIO-17 of the IS/ND to the following: **Recommended Mitigation Measure 1 Bat Habitat Assessment:** A qualified biologist should conduct a habitat assessment within the Project limits for suitable bat roosting habitat. The habitat assessment shall include a visual inspection of features within 200 feet of the work area for potential roosting features including trees, crevices, portholes, expansion joints and hollow areas (bats need not be present). A report should be provided by the qualified biologist and incorporated into the subsequent	Bat habitat assessments were conducted on May 5 and 6, 2022 to examine potential roosting and foraging locations for special-status bats, including pallid bat, western red bat, and Townsend’s big-eared bat, within the BSA. No day-roosting bats were observed at any location and/or adjacent vegetation during the survey. In addition, no sign of night-roosting bats (such as guano or urine staining) was observed below any potentially suitable tree roost habitat that could be safely accessed on foot and within the BSA. There are no CNDDB occurrences of pallid bat or western red bat and three CNDDB occurrences of Townsend’s big-eared bat within 2 miles of the BSA. Although conditions within the BSA are generally unsuitable or provide only marginally suitable habitat for special-status bat species, there is some potential for individuals to roost adjacent to the Project footprint, possibly originating from more suitable roost sites in nearby areas, within suitable roosting trees. However, where trees are adjacent to shoulder widening, avoidance and/or minimization measures would be evaluated in PS&E and implemented in construction to avoid the potential for any tree removal. Additionally,

Commenter	Comment Number	Comment	Response
		draft IS/ND that includes a section discussing the locations of suitable bat habitat and if any bats or signs of bats (feces or staining at entry/exit points) are discovered. The surveys should occur at least two seasons in advance of Project initiation. **Recommended Mitigation Measure 2 Bat Habitat Monitoring:** If potentially suitable bat roosting habitat is determined to be present based on recommended mitigation measure 1 above, a qualified biologist shall conduct focused surveys at the trees, bridge(s), culverts and overpasses. Methods should include utilizing night-exit surveys, sound analyzation equipment and visual inspection within open expansion joints and portholes of the structures. Surveys should occur from March 1 to April 15 or August 31 to October 15 prior to construction activities. If the focused survey reveals the presence of roosting bats, then the appropriate exclusionary or avoidance measures will be implemented prior to construction during the period between March 1 to April 15 or August 31 to October 15. Potential avoidance methods may include temporary, exclusionary blocking, one-way-doors or filling potential cavities with foam. Methods may also include visual monitoring and staging of work at different ends of the Project to avoid work during critical periods of the bat life cycle or to allow roosting habitat to persist undisturbed throughout the course of construction. Exclusion netting or adhesive roll material shall not be used as exclusion methods. If presence/absence surveys indicate bat occupancy, then construction should be limited to avoid the most sensitive stages of the bat species life cycle (maternity/pupping season). **Recommended Mitigation Measure 3 Bat Project Avoidance:** If active bat roosts are observed during environmental assessments or during construction, at any time, all Project activities should stop until the qualified biologist develops a bat avoidance plan to be implemented at the Project site. Once the plan is implemented, Project activities may recommence in coordination with the natural resource agencies. The bat avoidance plan should utilize seasonal avoidance, phased construction, as well as, temporary and permanent bat housing structures developed in coordination with CDFW. **Recommended Mitigation Measure 4 Permanent Bat Roost Design:** Permanent bat roost structures shall be incorporated into the design of modified structures and on trees within the Project to avoid potentially significant impacts from permanent habitat loss to roosting bats. The structures should be designed in coordination with CDFW and include the appropriate baffle spacing or features to accommodate multiple species of bats as specified in the Caltrans Bat Mitigation: A Guide to Developing Feasible and Effective Solutions Manual (H.T. Harvey, 2019).	there would be no Project impacts to abandoned structures or bridges that could provide bat roosting habitat. Therefore, impacts to bats would be less than significant, and implementation of PF-BIO-3, PF-BIO-4, PF-BIO-7, PF-BIO-8, PF-BIO-10, AMM-BIO-1, AMM-BIO-3, AMM-BIO-14, AMM-BIO-15, and AMM-BIO-18 would further avoid and/or minimize potential impacts to bats.
Ms. Erin Chappell, Regional Manager, California Department of Fish and Wildlife – Bay Delta Region	SA-1-8 COMMENT 8: Light Impact Analysis and Discussion	**Issue:** Page 3-7 of the IS/NMD indicates temporary construction lights will be employed throughout the Project but the IS/ND does not disclose if any new permanent lights or replacement of previously existing light elements with new lighting technology will occur as a result of construction. Please indicate if new permanent light or replacement light elements are proposed. This could result in substantial adverse effect on sensitive species and riparian habitat. **Evidence the impact would be significant:** Artificial night lighting can disrupt the circadian rhythms of many wildlife species. Many species use photoperiod cues for communication (e.g., bird song; Miller, 2006), determining when to begin foraging (Stone et al., 2009), behavior thermoregulation (Beiswenger, 1977), and migration (Longcore and Rich, 2004). For nocturnally migrating birds, direct mortality as a result of collisions with anthropogenic structures due to attraction to light (Gauthreux, 2006) is another direct effect of artificial light pollution. There are also more subtle effects, such as disrupted orientation (Poot et al., 2008) and changes in habitat selection (McLaren et al., 2018). Frogs and salamanders are particularly susceptible to artificial light pollution. Light pollution may affect physiology, behavior, ecology, and evolution of frog and salamander populations (Wise, 2007). For example, artificial light levels and timing influences melatonin production in salamanders. Melatonin regulates hormones, reproductive development and behavior, skin coloration, an animal's ability to regulate body temperature, and night vision (Gern, 1986). Reduced survival at the population level can result in smaller populations or populations that disappear altogether. Due to the high potential for migratory birds, songbirds, amphibians and mammals, including nocturnally active state listed and special-status species such as California tiger salamander and American badger, to occur within the Project limits, CDFW recommends no lighting is installed as a result of Project completion to avoid these potentially significant impacts.	This Project will not install any new permanent light or replacement light elements and therefore no potentialimpacts (significant or otherwise) to sensitive species or riparian habitat from new artificial light sources would occur. Nightwork is not anticipated for this Project, therefore, construction lighting is not anticipated to be needed during construction. However, in the event that temporary construction lighting is required, temporary construction lighting would be limited to occurring within the Project footprint for construction-related activities, and lighting would be minimized with the use of directional lighting, shielding, the use of bulbs that emit light at or under 2700 kelvin, and other measures as needed to avoid exposing nocturnal wildlife and their habitats, adjacent residences, and the traveling public to excessive glare and impacts would be less than significant.

Commenter	Comment Number	Comment	Response
		Recommendation: If new or replacement lighting elements are proposed, CDFW strongly recommends that the Project does not propose to install new artificial light sources, especially in areas where no artificial light previously existed. In areas where new or replacement artificial light sources are installed CDFW recommends incorporation of the following: **Recommended Mitigation Measure 1 Light Output Analysis:** The Lead Agency should submit as part of the IS/ND Isolux Diagrams that note current light levels present during Pre-Project conditions and the predicted light levels that will be created upon completion of the Project. If an increase in light output from current levels to the projected future levels is evident, additional avoidance, minimization or mitigation shall be developed in coordination with the natural resource agencies to offset indirect impacts to fish and wildlife species. Within 60 days of Project completion the Lead Agency shall conduct a ground survey that compares projected future light levels with actual light levels achieved upon completion of the Project through comparison of Isolux diagrams. If an increase from the projected levels to the actual levels is discovered additional avoidance, minimization or mitigation measures may also be required in coordination with the natural resource agencies. This analysis should be conducted across all potential alternatives and compared in table and map format. **Recommended Mitigation Measure 2 Light Output Limits:** All LED's or bulbs installed as a result of the Project shall be rated to emit or produce light at or under 2700 kelvin that results in the output of a warm white color spectrum. **Recommended Mitigation Measure 3 Vehicle Light Barriers:** Solid barriers at a minimum height of 3.5 feet should be installed in areas where they have the potential to reduce illumination from overhead lights and from vehicle lights into areas outside of the roadway. Barriers should only be utilized as a light pollution minimization measure if they do not create a significant barrier to wildlife movement. Additional barrier types should be employed when feasible, such as privacy slats into the spacing of cyclone fencing to create light barriers for areas outside the roadway. **Recommended Mitigation Measure 4 Reflective Signs and Road Striping:** Retro-reflectivity of signs and road striping should be implemented throughout the Project to reduce the need for electrical lighting. **Recommended Mitigation Measure 5 Light Pole Modifications and Shielding:** All light poles or sources of illumination that will be new or replacement installations of existing light sources should be installed with the appropriate shielding to avoid excessive light pollution into natural landscapes or aquatic habitat within the Project corridor in coordination with CDFW. In addition, the light pole arm length and mast heights should be modified to site-specific conditions to reduce excessive light spillage into natural landscapes or aquatic habitat within the Project corridor. In areas with sensitive natural landscapes or aquatic habitat, the Lead Agency should also analyze and determine if placing the light poles at non-standard intervals has the potential to further reduce excessive light pollution by decreasing the number of light output sources in sensitive areas.	
Ms. Eris Weaver, Executive Director, Sonoma County Bicycle Coalition	NPO-1-1	Thanks for meeting with me yesterday regarding the Highway 1 Rumble Strip project. I still couldn't find the report on the Caltrans website so I dug out the *Press Democrat* public notices section to get the direct URL and download the report. I have a few questions. Regarding the purpose of the project (p. 1.1): *The purpose of the Project is to reduce the number and severity of head-on, cross-centerline, and run-off-road collisions in order to provide safe traffic operations on SR 1 and also to provide refuge areas for bicyclists to use when being passed by motorists on this stretch of the highway.* *The current Two-and-Three-Lane Safety Monitoring Program has identified several head-on collisions, sideswipe collisions, and fatal collisions on SR 1 in Sonoma County. The 2012 California Roadway Departure Safety Implementation Plan (CA-RDSIP) (FHWA 2012) also identified SR 1 in Sonoma County as having fatalities from run-off-road accidents that meet the threshold for countermeasures. CA-RDSIP promotes the implementation of centerline rumble strips on two-lane undivided rural highways with a pavement width of at least 20 feet when thresholds have been met.* How many collisions? Where? I don't know anything about the Two-and-Three-Lane Safety Monitoring Program (and couldn't find it online) but I did search the Statewide Integrated Traffic Records System (SWITRS). There were 169 crashes on Highway 1 in Sonoma County in 2017-2021 (see chart below).	The Two- and Three-Lane Cross Centerline Collision Monitoring Program is a Caltrans Safety Program which identifies segments of the State Highway System with high concentration of fatal cross centerline collisions for further investigation. Based on the investigative findings, safety enhancement projects are developed to implement appropriate countermeasures. The Centerline Rumble Strip Project along SR 1 in Sonoma County was developed in response to the findings from this monitoring Program, in order to implement countermeasures, thereby improving safe traffic operations on SR 1.

Commenter	Comment Number	Comment	Response
		Forty-eight percent were caused by improper turning and 20 percent by excessive speed. It is not clear to me how the installation of rumble strips would decrease these sorts of crashes.  	
Ms. Eris Weaver, Executive Director, Sonoma County Bicycle Coalition	NPO-1-2	During our conversation you mentioned a similar project in Marin County, and the report states (p. 2.3): *To ensure the Project supports safe mobility for all users, a previous Caltrans centerline rumble strip project was analyzed. Centerline rumble strips were installed on SR 1 in Marin County, and collision data from before and after Project completion was analyzed. In conclusion, after the installation of centerline rumble strips, the percentage of bicycle-related collisions, head-on, and fatal collisions, have all decreased. Therefore, centerline rumble strip has been proven to increase the overall, multi-modal safety for all users.* Again, what is the source of the data? I'd like to see the actual numbers. Did that project also widen the shoulder?	In addition to installing centerline rumble strip, the Marin County centerline rumble strip project also included other safety enhancement features including shoulder widening at selected locations and installing road striping & markings with enhanced nighttime visibility. These safety countermeasures improved traffic safety for all road users traveling on SR1 in Marin County. The scope of this Project includes the same countermeasures to reduce the number and severity of head-on, cross-centerline, and run-off-road collisions in order to provide safe traffic operations on SR 1 in Sonoma County for all users. Caltrans continually tracks the safety performance of the State Highway System through multiple safety tracking tools including the Two- and Three-Lane Cross Centerline Collision Monitoring Program, the Bicyclist Safety Improvement Monitoring Program and Run Off Road Monitoring Program. Whenappropriate, additional safety enhancement projects will be developed to address identified issues and to ensure safe travel for all road users. The Bicyclist Safety Improvement Monitoring Program identifies locations that have experienced high concentration of bicyclist-involved collisions. This is a reactive approach to address the so-called hot spot locations. The Bicyclists Systemic Safety Improvement Program looks for locations that may not have experienced any collisions but share similar characteristics or risks that are associated with locations that have experienced bicyclist-involved collisions. This is the proactive approach to enhance safety without waiting for collisions to occur. Both programs are based on data-driven safety analyses with the goal of reducing bicyclist fatalities and serious injuries. Caltrans is responsible for maintaining the State Hihgway System, and prioritizes safety for all users with a goal of zero deaths. The Caltrans Traffic Safety Investigation Branches are responsible for investigating locations identified by these programs and recommending projects to improve safety. The results of the safety monitoring programs are not public documents.

Commenter	Comment Number	Comment	Response
Ms. Eris Weaver, Executive Director, Sonoma County Bicycle Coalition	NPO-1-3	I already mentioned the inadequacy of the project's public outreach (one public notice in the section of the newspaper that nobody reads). In that notice, as well as on p. 4.1 of the report, are listed three libraries where a hard copy of the report resides: Guerneville, Rohnert Park/Cotati, and Sonoma. Guerneville makes sense as it is the closest to at least some sections of the coast; Rohnert Park is a little odd but Sonoma? Did anyone look at a map of the county? The town of Sonoma is the farthest away from the coast. Did you mean the Central Branch of the Sonoma County Library, which is in Santa Rosa?	Caltrans acknowledges your comments regarding the public outreach conducted for this Project. Per CEQA guidelines, Caltrans is committed to project specific equitable public engagement. In addition to the Public Notice in the Press Democrat, Caltrans evaluated the Project corridor and selected relevant locations for distribution of hard copies of the DED. Furthermore, flyers were sent via USPS to residents along the entire Project corridor. These flyers provided information about the Project, the public comment period, as well as the Caltrans District 4 website where the IS/ND can be found. Additionally, the Project was presented at the Sonoma County Coastal Municipal Advisory Council meeting on January 19, 2023, and at the Sonoma County Bicycle Coalition meeting on January 24, 2023.
Ms. Eris Weaver, Executive Director, Sonoma County Bicycle Coalition	NPO-1-4	I am going to engage in further research and will likely have additional comments, but at this point I have not been convinced that adding rumble strips to this stretch of highway is going to result in the greatest increase in safety for cyclists. (If you have better data on this please point me to it.) For an expenditure of $23 million I'd rather see the shoulders widened and a dedicated bikeway installed along the entire corridor, reduced speed limits, and the installation of the "Bikes May Take Entire Lane" signs we discussed.	Caltrans acknowledges your comments regarding the safety of cyclists on SR 1 within the Project corridor. The purpose of the centerline rumble strips are to decrease the number and severity of head-on, cross-centerline, and run-off-road collisions in order to improve safe traffic operations on SR 1. Additionally, following the installation of centerline rumble strip, and shoulder widening on SR 1 in Marin County, post-construction collision data has been assessed, and has shown that after the installation of centerline rumble strip, the percentage of bicycle-related collisions with vehicle-bike conflict has decreased. With the installation of centerline rumble strip in addition to the construction of bicycle refuge areas, it is anticipated that there will be an increase in safety for cyclists on SR 1 within the Project corridor. While Caltrans agrees that it would be ideal to widen the shoulders for a dedicated bikeway along the entire corridor, and sign and stripe the shoulders as bike lanes, the existing Build Alternative for this Project would not extend the widened shoulders to an intersection and thus any designated bike lane would not connect to any cross streets. However, the Caltrans Office of Traffic Safety will consider bicycle-related signage in those areas where the shoulder tapers and narrows again where bicyclists may be re-entering the travel lane from the widened shoulder. This evaluation of bicycle-related signage has been added to the Final IS/ND as an avoidance and/or minimization measure to the Transportation section as AMM-TRANS-2.
Ms. Eris Weaver, Executive Director, Sonoma County Bicycle Coalition	NPO-1-5	Finally, please do not repeat the line about "Caltrans is dedicated to complete streets/accessibility & safety for all users" immediately followed by a list of the reasons that whatever infrastructure change bike & pedestrian advocates are asking for "isn't feasible." I hear a version of this from every level of government and while it is likely intended to be reassuring, it is actually somewhat insulting. I will believe it when I see projects that put pedestrians and cyclists FIRST rather than treating us as an "add on" to roads that are designed primarily for autos.	Caltrans acknowledges your comment regarding the validity of the statement "Caltrans is dedicated to complete streets/accessibility and safety for all users". This Project proposes to install 50 bicycle refuge areas throughout the Project corridor, improving existing facilities for all users. While Caltrans understands that it would be ideal for this Project to widen the shoulders along the entire corridor to construct a continuous bike path, that is not within the scope of this Project.
Ms. Emily Shartin, Advocacy and Communications Coordinator, Sonoma County Bicycle Coalition	NPO-2-1	While we appreciate the effort to increase safety on Highway 1, this project seems to be considering bicyclists as an afterthought. We are concerned that a centerline rumble strip will deter cars from giving bicyclists a wide enough berth when passing. Given that many stretches of Highway 1 in Sonoma County have little or no shoulder, cars often need to cross the centerline to give bicycles a safe distance. With the impediment of a rumble strip, cars conceivably would be passing much closer to bicyclists than they are currently. We recognize that Caltrans is aiming to address concerns around safe passage by widening the shoulder at 50 locations along the road. But the lack of a continuous shoulder puts the burden on bicyclists both to get out of the way of traffic and then move back into the travel lane when the shoulder disappears -- a situation that ultimately favors cars. If the project continues as proposed, visibility for bicyclists returning to the travel lane must be of paramount consideration when widening the shoulder. We repeat our request for more transparency around the accident data that led to this project, as well as details regarding a similar, completed project on Highway 1 in Marin County and the effects it has had in reducing collisions there. In a brief presentation to Sonoma's Countywide Bicycle and Pedestrian Advisory Committee in January, representatives from Caltrans acknowledged that the Sonoma County project does not "create the ideal bikeway" on Highway 1. A *continuous*, 6-foot-wide shoulder on Highway 1, however, would be a major step toward an ideal bikeway. We encourage Caltrans to put the $23 million allotted	Caltrans acknowledges your comment regarding the centerline rumble strip potentially discouraging motorists to provide bicyclists with enough room when passing, however collision data was collected from State Route 1 in Marin County, after a similar Project was implementedwhich showed that the percentage of bicycle-related collisions with vehicle-bike conflict has decreased since the rumble strips were installed on State Route 1 in Marin County. While Caltrans understands that it would be ideal to widen the shoulders for a dedicated bikeway along the entire corridor, and sign and stripe the shoulders as bike lanes, the existing Build Alternative for this Project would not extend the widened shoulders to an intersection and thus any designated bike lane would not connect to any cross streets. However, the Caltrans Office of Traffic Safety will consider bicycle-related signage in those areas where the shoulder tapers and narrows again where bicyclists may be re-entering the lane from the widened shoulder. This evaluation of bicycle-related signage has been added to the Final IS/ND as an avoidance and/or minimization measure to the Transportation section as AMM-TRANS-2. The scope of this Project does not include a continuous, 6-foot-wide shoulder on Highway 1 within the Project corridor. However, Caltrans will continue to coordinate with parent agencies on implementing bicycle improvements to the State Highway System.

Commenter	Comment Number	Comment	Response
		for this project toward ensuring that a viable shoulder extends the length of Highway 1 in Sonoma County to increase safety for bicycles and cars alike.	
Mr. Kenneth Tam, Park Planner II, Sonoma County Regional Parks	NPO-3-1	Thank you for the opportunity to comment on the State Route 1 Centerline Rumble Strip Project. It is our understanding that the proposed project would include the installation of a centerline rumble strip and shoulder pavement widening to 6-feet at 50 spot locations which are identified in Tables 2-2 and 2-3. These improvements would improve the safety of motorists and bicyclists using State Route 1 to access many of the public parks and beaches on the coast. Widening the road pavement shoulders will also improve access for pedestrians. Sonoma County Regional Parks supports Caltrans efforts in making State Route 1 safer for motorists and bicyclists. Regional Parks is working on the development of several sections of the California Coastal Trail which will also provide a safe pathway for bicyclists and pedestrians along the State Route 1 corridor. The specific Coastal Trail sections are identified in the subsequent paragraphs. <u>Timber Cove Trail (PM 34.63 to PM 38.16)</u> In 2015, Regional Parks completed the Timber Cove Trail Feasibility Study which evaluated a 2.5-mile-long preferred trail (aka Coastal Trail) alignment from Stillwater Cove Regional Park on the north end to Fort Ross State Historic Park on the southern end (PM 34.63 to PM 38.16). Parts of the preferred trail alignment would be located within the State right of way. Per Table 2-3. Shoulder Widening Locations (ISND), no shoulder widening is proposed from PM 34.63 to PM 38.16 where a section of the proposed Coastal Trail would be located. If the shoulder widening limits are expanded at a later date to include PM 34.63 to PM 38.16, please contact and coordinate with Regional Parks. There may be opportunities where the shoulder widening could help improve sections of the Coastal Trail. Attached for reference are typical trail cross sections showing how bicycle and pedestrian use can be accommodated within the State Route 1 corridor. The trail cross sections were taken from the Timber Cove Trail Feasibility Study. <u>Stewarts Point Ranch Trail (PM 48.74 to PM 48.20)</u> In March 2022, Regional Parks complete the Initial Study and Mitigated Negative Declaration for the North Coast Trails Project (aka Stewarts Point Ranch Trail and Kashia Coastal Reserve Trail). This section of the Coastal Trail is located off the highway on the west side of State Route 1. The trail connects to the highway at PM 48.74 and PM 48.20. Per Table 2-3. Shoulder Widening Locations (ISND), no shoulder widening is proposed from PM 48.74 to PM 48.20, please contact and coordinate with Regional Parks. <u>Kashia Coastal Reserve Trail (PM 44.72 to PM 45.87)</u> This section of the Coastal Trail is on the west side of State Route 1. There are seven (7) general locations where the proposed trail alignments are located near or within the State Route 1. The seven locations are identified at PM 44.72, 44.82 (drainage), 44.97 (drainage), 45.32 (drainage), 45.43 (drainage), 45.68 (drainage), and 45.87. It appears that the proposed shoulder pavement widening at SB#38 (Location 54) is in proximity to PM 45.32. Regional Parks is planning to advertise for construction bids for the North Coast Trails project in winter 2023 and completing trail construction in 2025. It is our understanding that Caltrans plans to start construction of the centerline rumble strip and shoulder pavement widening in January 2025. As Caltrans gets closer to finalizing the project schedule, please contact Regional Parks so that we can 1) review and provide input on the Caltrans improvement plans and 2) coordinate our construction activities.	Thank you for your comment. Caltrans will contact and coordinate with Sonoma County Regional Parks if a shoulder widening location is added between PM 34.16 and PM 38.16 and/or between PM 48.74 and PM 48.20. In addition, Caltrans will contact Sonoma County Regional Parks as construction of this Project approaches, to ensure Sonoma County Regional Parks can review and provide input on the Caltrans improvement plans during the design phase, and to ensure Sonoma County Regional Parks and Caltrans can coordinate construction activities if overlap exists between the Project and Sonoma County Regional Parks efforts related to the North Coast Trails Project. This coordination has been added to the Final IS/ND as an avoidance and/or minimization measure to the Transportation section as AMM-TRANS-1.

Commenter	Comment Number	Comment	Response
Brandyn Simpson	IND-1-1	I received the notice today the 28th of January. How many came to the meeting? I would think you might not be getting much controversy if this is any example of notice to the public. I think the bike riders should have separate paths for riding, the roads in this part of the County are too narrow for the bike riders. I'm surprised there are not more accidents.	Thank you for your comments. While Caltrans understands the desire for separatebike paths in this part of Sonoma County the existing Build Alternative for this Project includes widening of the shoulder along SR 1 in Sonoma County at 50 locations and evaluating bicycle-related signage in those areas where the shoulder tapers and narrows again where bicyclists may be re-entering the lane from the widened shoulder during the Project design phase. This evaluation of bicycle-related signage has been added to the Final IS/ND as an avoidance and/or minimization measure to the Transportation section as AMM-TRANS-2. Caltrans is committed to looking for opportunities to improve the state highway system for all users by incorporating multi-modal improvements in all projects.
Claudia Collins	IND-2-1	My family has had a home on Hwy 1 for 50 years at Portuguese Beach. I understand that two turnouts are planned in the 20 mile span between Hwy 1 and Russian River. As early as 20 years ago, this probably would have been sufficient but not any longer. This stretch of the Sonoma Coast is very crowded now, at least on the weekends. There are many more mobile homes and many vehicles, and bicycles in general. The ocean side of the highway has very little room for error; we need many more turnouts in this area and they should be paved for safer travel. Impatient drivers will pass on a solid line if slower drivers don't have a chance to use available turnouts which has caused cars to go over the cliff as well as many fatalities. Please, please, include more turnouts on this very popular 20 mile stretch of Hwy 1.	Caltrans acknowledges your request for additional turnouts, however that type of work is not in the scope of this Project.
Steve Dee	IND -3-1	Thank you for the opportunity to review and comment on the proposed SR 1 Rumble Strip project. Although the proposed project would provide benefits to the motoring public, it at the same time may create potential impacts that neighboring land owners and cyclists have expressed concern over, namely noise and parking conflicts along SR 1. For example, the proposed 6-ft wide shoulder along SR 1 will create a parking supply for commercial and recreational land uses in Jenner thereby increasing traffic congestion and circulation conflicts, as well as conflicts with bicyclists that would otherwise use the new shoulders for a safe and efficient bike trail. Many conflicting land use activities already exist in Jenner so adding improvements such as the proposed project should be done with care. Adding noise generators (rumble strips) and a tacit parking supply along SR 1 by widening the shoulder width could create secondary impacts under the provisions of CEQA. Therefore, please respond to the following comments on the subject proposed Negative Declaration: 1-Identify and mitigate to a less-than-significant level the potential noise impacts on neighboring land uses that will be generated by the proposed rumble strips.	Caltrans acknowledge your comments regarding the anticipated noise generated from the proposed rumble strips.Caltrans has selected a specific type of rumble strip proposed under this Project called a mumble strip to address this concern. When a single vehicle passes by on the pavement at 60 miles per hour, the noise level is 81.5 dBA at 25 feet. When being crossed by a vehicle, mumble strips increase noise levels by 6 dBA above that of a single vehicle passing on the pavement, whereas rumble strips increase noise levels by 12.6 dBA when being crossed by a vehicle. As discussed in Section 2.2.1 of the IS/ND, the centerline rumble strips would be discontinued where the speed limit is equal to or less than 35 miles per hour; these locations include a minimum of 25 feet in advance of highway intersections, pedestrian crossings, cattle guards, commercial or town centers, and left-turn lane openings. Additionally, rumble strip strikes are intermittent and brief and will not increase the ambient noise levels, therefore this is a less than significant impact on noise.
Steve Dee	IND -3-2	2-Identify and mitigate to a less-than-significant level the potential conflict between parking supply created by the proposed shoulder widening and the need for an adequate and safe bicycle path.	The Caltrans Office of Traffic Safety will consider bicycle-related signage in those areas where the shoulder tapers and narrows again where bicyclists may be re-entering the lane from the widened shoulder. This evaluation of bicycle-related signage has been added to the Final IS/ND as an avoidance and/or minimization measure to the Transportation section as AMM-TRANS-2. Caltrans anticipates that the 6-feet of shoulder widening will deter people from using those areas as parking since they are not standard shoulder widths. Additionally, if bicycle refuge area signs are installed, it is anticipated that the signs would deter people from parking in the shoulder widening locations as well.
Pat Paterson	IND-4-1	Rumble strips should not be used in areas where the roadway frequently floods. Traffic must drive around the frequent flooding and ponding on the sides of highway 1. My wife had to detour on to State Route One in Marin County when Valley Ford Road flooded. It was dark and she did not realize there were newly installed rumble strips until she crossed the center line and was assaulted by the rumble strips. You should not put rumble strips where the roadway habitually floods or ponds for that reason. State Route 1 frequently floods in the S-curves just north of Valley Ford Road, mile post 1SON00.50 to 1SON01.00 and rumble strips should never be installed there.	Thank you for your comment. This Project does not propose to install rumble strips from PM 0.00 to PM 2.05.

Commenter	Comment Number	Comment	Response
Pat Paterson	IND-4-2	When I attended the Sonoma County MAC meeting regarding the widening of SR 1's shoulders and brought up the subject of turnouts, I was told to email you. There are only 4 turnouts in the 20 miles between the Sonoma County Line the Russian River Bridge. They are too short for vehicles that are large enough to impede traffic to use. Some are poorly placed. When you widen the shoulders on State Route 1 please address the deficient turnouts. I am a retired highway patrolman that has worked/lived off SR 1 for 25 years. I collect antique trucks and have had a commercial license with endorsements. Valley Ford Turnout southbound 1SON02.20 which is just south of Valley Ford Freestone Road, is properly located in a flat straight away and even though it is parallel to the old highway it is too short. The old highway is so wide that Caltrans sometimes parks equipment on it. Usually, the traffic that use this turnout are lost motorist updating their navigation system (as seen on the current Google Street View). Bean Ave Turnout northbound 1SON12.40 which is at Bean Ave, is only about a half of a dozen car lengths long and on a sharp curve that limits view of approaching traffic. This turnout ends at the creek. The main use of this turnout is bird watching. Salmon Creek Beach Turnout 1SON12.70, is properly located in a very long straightaway however it still too short for descending heavy vehicles to normally use. It is also poorly marked. The "Turnout" sign shares a signpost with a tsunami evacuation route sign which is much larger and brighter than the turnout sign. The pavement is not marked with a red border, "Turnout" or "No Parking" so it fills up with parked cars during good weather. Only one No Parking sign is left. The other wooden No Parking signposts have been broken off.	While Caltrans understands that the existing turnout deficiencies along SR 1 in Sonoma County need to be addressed, that type of work is not in the scope of this Project. Caltrans will consider addressing the existing turnout deficiencies in a future project. The Caltrans Office of Traffic Safety will consider bicycle-related signage in areas where the shoulder tapers and narrows again where bicyclists may be re-entering the lane from the widened shoulder. Caltrans anticipates that the 6-feet of shoulder widening will deter people from using those areas as parking since they are not standard shoulder widths. Additionally, if bicycle refuge area signs are installed, it is anticipated that the signs would deter people from parking in the shoulder widening locations as well. This evaluation of bicycle-related signage has been added to the Final IS/ND as an avoidance and/or minimization measure to the Transportation section as AMM-TRANS-2.
Les and Sheryl Erbst	IND-5-1	I am writing in protest of the planned State Rt. 1 Centerline Rumble Strip Project. I received the small post card notice on January 28, 2023, so I was not aware and able to attend the zoom meeting held on January 19. I reviewed the proposal and found that one of the spot locations is directly in front of my house apparently the only such situation in the entire length of the project. That would be SB#2 Location 6 and my address is 14655 Hwy 1 Valley Ford. My house sits less than 100 feet from the road and the addition of rumble strip would have devastating effects on our quality of life. There is also less than 25 feet from the highway to the easement road in front of my house and losing an additional 6 feet for a bicycle lane would create an even smaller and unsafe buffer between the highway and easement road. The loud noise from the rumble strip would be heard and felt inside our house ruining our quality of life and potentially decreasing our property value and desirability of our property. It would disturb and potentially frighten our pets and livestock. We would be unable to sleep or eat in peace and could have a negative impact on our mental and physical health. Obviously this was not taken into consideration by Caltrans when doing your impact study so I would ask that this spot location be removed and that the rumble strip not be installed in front of our home. There is no need for it as the piece of road sits between two sharp bends in the highway that requires traffic to go slowly. In my 27 years here there has never been an accident caused by anyone crossing the center line. Please contact me asap to discuss and resolve this matter.	Caltrans acknowledges your comment regarding the anticipated noise generated from the proposed rumble strips. Caltrans has selected a specific type of rumble strip proposed under this Project called a mumble strip to address this concern. When being crossed by a vehicle, mumble strips increase noise levels by 6 dBA above that of a single vehicle passing on the pavement, whereas rumble strips increase noise levels by 12.6 dBA. Rumble strip strikes are intermittent and brief and would not increase the ambient noise levels. The shoulder widening is consistent with the Caltrans Complete Streets Action Plan, Caltrans State Route 1 Transportation Concept Report, and Sonoma County Transportation Authority Countywide Bicycle and Pedestrian Master Plan.

Notes:
IND = Individual
NPO = Non-Profit Organization
SA = State Agency