

# **State Route 128 Storm Damage Repair**

On State Route 128 at post miles 2.36 and 2.6

04-SON-128-2.36 and 2.6

EA 04-1SS22

04-0002-0888

## **Initial Study with Proposed Mitigated Negative Declaration**



Prepared by the  
State of California Department of Transportation

**February 2013**



# General Information About This Document

## *What's in this document?*

The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts for the proposed project in Sonoma County, California. The document describes the proposed project, the existing environment that could be affected by the project, and potential impacts from the project, and the proposed avoidance, minimization, and/or mitigation measures.

## *What should you do?*

Please read this Initial Study. Additional copies of this document as well as the technical studies are available for review at the Caltrans district office at 111 Grand Avenue, Oakland, CA 94612 and Cloverdale Regional Library at 401 N. Cloverdale Boulevard, Cloverdale, CA 95425. The document can be accessed electronically at the following website:

<http://www.dot.ca.gov/dist4/envdocs.htm#sonoma>

- We welcome your comments. If you have any concerns about the proposed project, please send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to Caltrans at the following address:

Scott Smith, Senior Environmental Planner  
Central Sierra Environmental Analysis Branch  
855 M Street, Suite 200  
Fresno, CA 93721

Submit comments via email to: [scott\\_smith@dot.ca.gov](mailto:scott_smith@dot.ca.gov).

- *Submit comments by the deadline: **March 12, 2013.***

## *What happens next?*

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

For individuals with sensory disabilities, this document is available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please contact: Caltrans, Attn: Scott Smith, Central Sierra Environmental Analysis Branch, 855 M Street, Suite 200, Fresno, CA 93721; 559-445-6172 -Voice, or use the California Relay Service TTY number, 1-800-735-2929, or dial 711.

# Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

## ***Project Description***

The California Department of Transportation (Caltrans) proposes to repair and stabilize two segments of State Route 128 in Sonoma County. At Location 1 (post mile 2.36), work would include construction of a soldier pile wall (retaining wall) approximately 90 feet long and 15 feet high, reconstruction of the westbound lane of State Route 128 to 12 feet wide with a 4-foot-wide paved shoulder, installation of guardrail at the edge of the shoulder, installation of cable railing along the retaining wall, and removal of vegetation. At Location 2 (post mile 2.6), work would include installing horizontal drains to manage subsurface water, removing unstable slide debris, and placing erosion mat and a double-twisted wire mesh drapery system over the slide area. Work would also include removal of vegetation within slide area necessary to place the erosion mat and wire mesh drapery system.

## ***Determination***

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

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

The proposed project would have no effect on aesthetics, agricultural and forest resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emission, hazards waste or materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation/traffic, utility and service systems, or mandatory findings of significance.

As proposed, this project expects to have no significant effects on biological resources because the proposed avoidance, minimization, and compensatory mitigation measures—through the purchase of credits at a mitigation bank approved by the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife—will reduce potential effects to the California tiger salamander to a level that is not significant.

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Scott Smith  
Senior Environmental Planner  
CEQA Lead Agency- Central Sierra Environmental Analysis Branch  
California Department of Transportation

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Date



## Section 1 Project Information

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### ***Project Title***

State Route 128 Storm Damage Repair

### ***Lead Agency Name and Address***

California Department of Transportation (Caltrans) - District 4  
111 Grand Avenue  
Oakland, CA 94612

### ***Contact Person and Phone Number***

Scott Smith, Senior Environmental Planner  
855 M Street, Suite 200  
Fresno, CA 93721  
559-445-6172

### ***Project Location***

This project is in Sonoma County on State Route 128 near Cloverdale at post miles 2.36 and 2.6 (see Figures 1 and 2).

### ***Project Sponsor's Name and Address***

California Department of Transportation (Caltrans) - District 4  
111 Grand Avenue  
Oakland, CA 94612

### ***General Plan Description and Zoning***

The Sonoma County General Plan shows the land use designation of the project area as Resources and Rural development. In this area, State Route 128 is a two-lane conventional highway, classified primarily as a minor rural arterial.

### ***Description of Project***

The California Department of Transportation (Caltrans) proposes to repair and stabilize two segments of State Route 128 in Sonoma County.

At Location 1 (post mile 2.36), work would include construction of a soldier pile wall (retaining wall) approximately 90 feet long and 15 feet high, reconstruction of the westbound lane of State Route 128 to 12 feet wide with a 4-foot-wide paved shoulder, installation of guardrail at the edge of the shoulder, installation of cable railing along the retaining wall, and removal of vegetation.

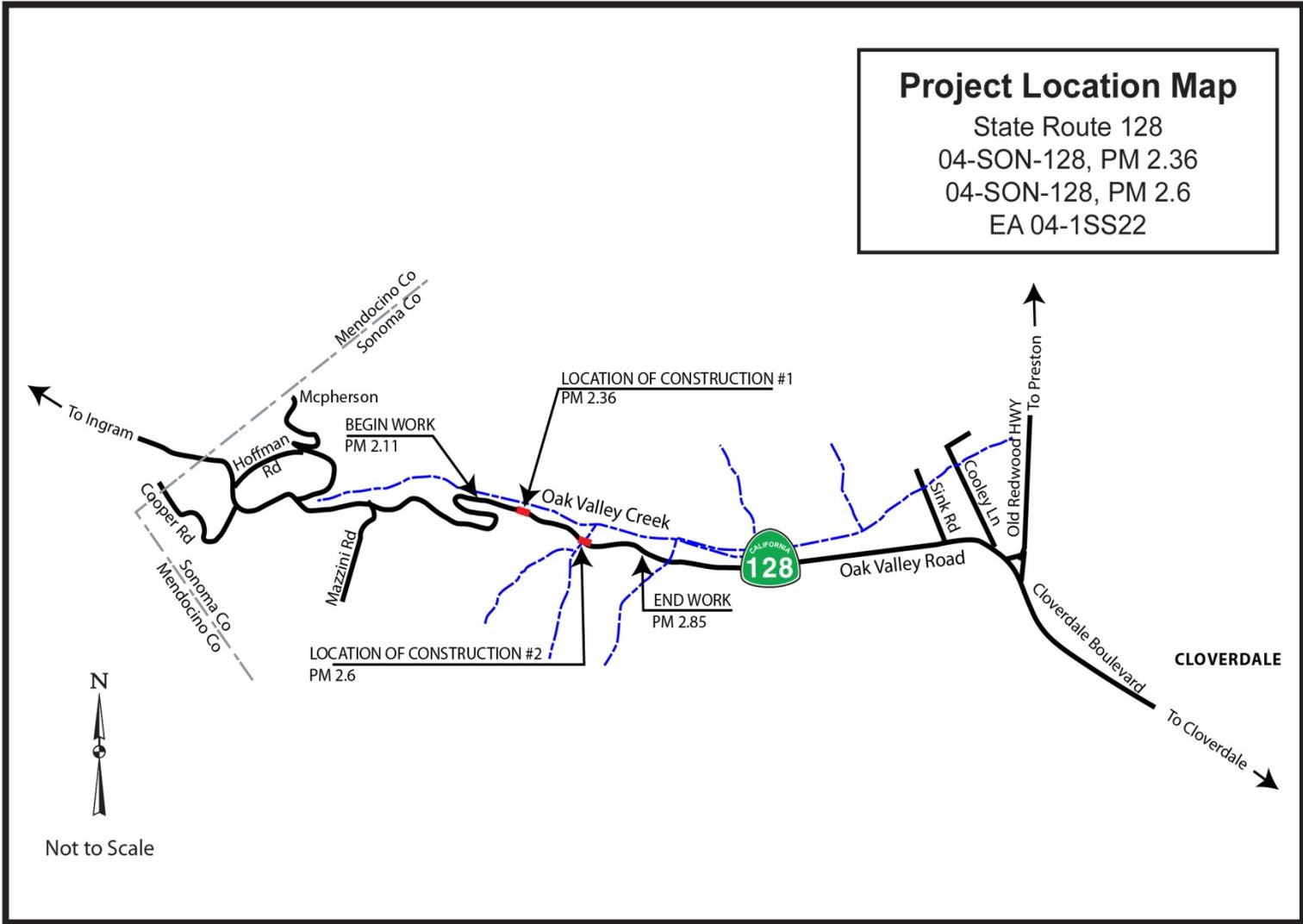
At Location 2 (post mile 2.6), work would include installing horizontal drains to manage subsurface water, removing unstable slide debris, and placing erosion mat and a double-twisted wire mesh drapery system over the slide area. The project would also remove vegetation within the slide area necessary to place the erosion mat and wire mesh drapery system.

***Surrounding Land Uses and Setting***

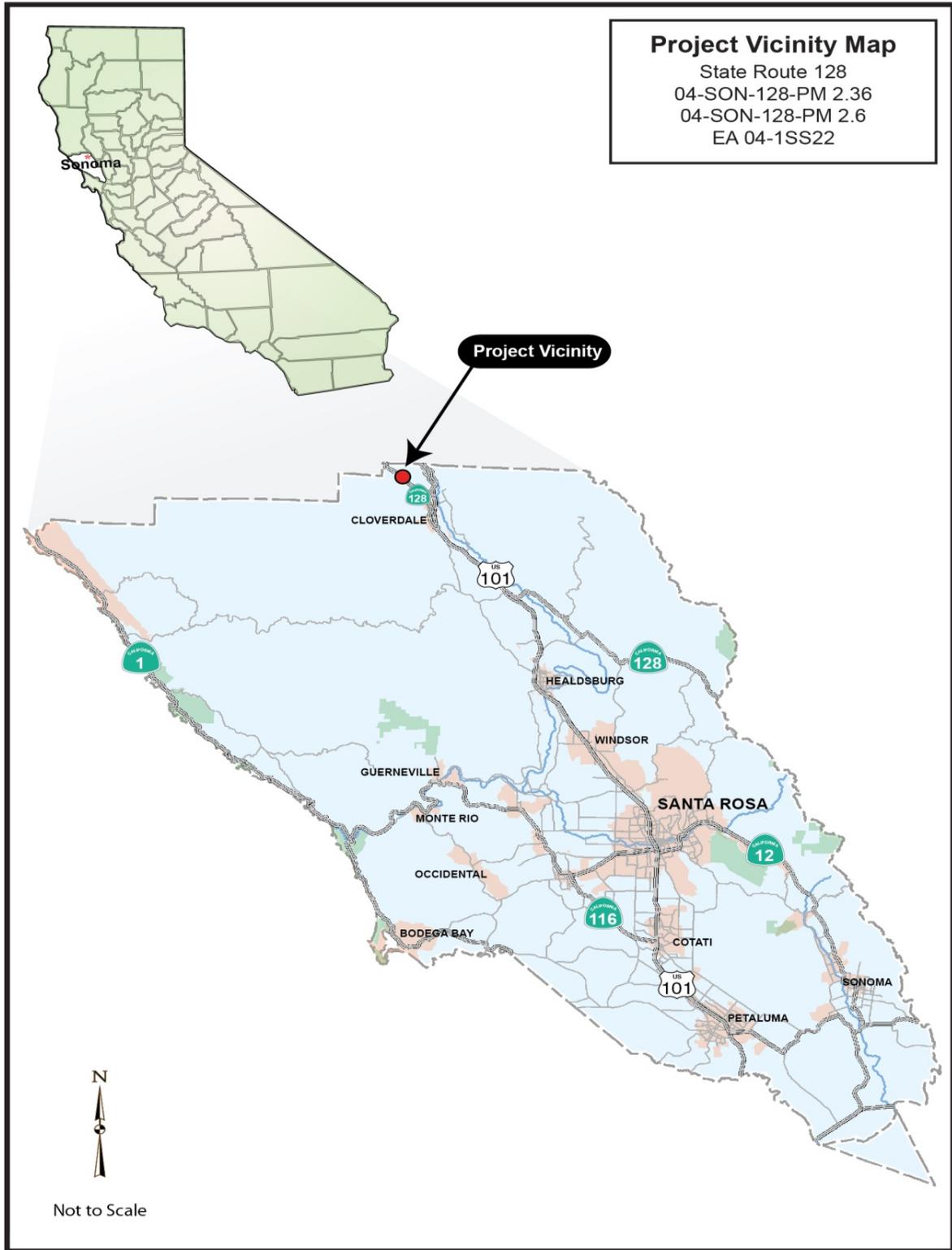
The project area lies in the foothills of the Sonoma Valley at approximately 600 feet in elevation, within the North Coast Range. The area contains black oak woodland habitat.

**Table 1: Other Public Agencies Whose Approvals Are Required**

| Agency                                     | Permit/Approval | Status   |
|--|-----------------|--|
| California Department of Fish and Wildlife | Section 1602    | The Section 1602 permit application would be submitted after project approval. |



**Figure 1 Project Location Map**



**Figure 2 Project Vicinity Map**

## Section 2 Environmental Factors Potentially Affected

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The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

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

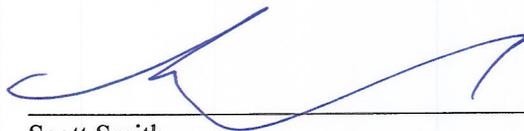


## Section 3 Determination

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On the basis of this determination:

- 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.



Scott Smith  
Senior Environmental Planner  
Central Sierra Environmental Analysis Branch  
California Department of Transportation CEQA Lead Agency

2/1/13  
Date



## Section 4 Impacts Checklist

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The impacts checklist starting on the next page identifies physical, biological, social, and economic factors that might be affected by the project. Direct and indirect impacts are addressed in checklist items I through XVII. Mandatory Findings of Significance are discussed in item XVIII. The California Environmental Quality Act impact levels include “potentially significant impact,” “less than significant impact with mitigation,” “less than significant impact,” and “no impact.”

A brief explanation of each California Environmental Quality Act checklist determination follows each checklist item. Lengthy explanations, if needed, are provided after the checklist.

| Potentially significant impact | Less than significant impact with mitigation | Less than significant impact | No impact |
|--------------------------------|--|------------------------------|-----------|
|--------------------------------|--|------------------------------|-----------|

**I. AESTHETICS** — Would the project:

- a) Have a substantial adverse effect on a scenic vista?

*Explanation:* According to the Visual Assessment Report, there are no scenic resources, such as rock, outcrops, historic buildings or other structures that would be adversely affected by the project. (Scenic Resource Evaluation and Visual Assessment, December 17, 2012)

- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

*Explanation:* The proposed project would not have an effect on scenic resources. The two locations of the project (Locations 1 and 2) on State Route 128 are not listed as eligible or officially designated for Scenic Highway status. (Scenic Resource Evaluation and Visual Assessment, December 17, 2012)

- c) Substantially degrade the existing visual character or quality of the site and its surroundings?

*Explanation:* The proposed project would not degrade the existing visual character or quality of the site and its surroundings because there are no Scenic Resources such as rock outcrops, historic building or other structures that would be adversely affected by the project. (Scenic Resource Evaluation and Visual Assessment, December 17, 2012)

- d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

*Explanation:* The proposed project is a storm damage repair project and would not introduce a new light source to the area. (Scenic Resource Evaluation and Visual Assessment, December 17, 2012)

**II. AGRICULTURE AND FOREST RESOURCES** —  
Would the project:

- 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?

*Explanation:* The proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of statewide importance to non-agricultural use, because the project is located on Resources & Rural Development Land Use Designation. (Sonoma County General Plan, Land Use Element)

- b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

*Explanation:* The proposed project would not conflict with existing zoning for agricultural use, or a Williamson Act contract, because the project is located on Resources & Rural Development Land Use Designation. (Sonoma County General Plan, Land Use Element, updated December 2011)

| Potentially significant impact | Less than significant impact with mitigation | Less than significant impact | 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))?

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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*Explanation:* The proposed project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production because the project is located on Resources and Rural Development land use designation. (Sonoma County General Plan, Land Use Element, updated December 2011)

d) Result in the loss of forest land or conversion of forest land to non-forest use?

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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*Explanation:* The proposed project would not result in the loss of forest land or conversion of forest land to non-forest use because the project is located on Resources and Rural Development land use designation. (Sonoma County General Plan, Land Use Element, updated December 2011)

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?

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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*Explanation:* The proposed project would not 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. The project is located on Resources and Rural Development land use designation. (Sonoma County General Plan, Land use Element, update December 2011)

### III. AIR QUALITY

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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*Explanation:* The proposed project would not obstruct implementation of any air quality plan because it is exempt from regional emissions analysis requirements per 40 Code of Section 93.126, Table 2. (Air Quality Memorandum, January 11, 2013)

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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*Explanation:* The proposed project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation because it does not increase capacity and because it is exempt from regional emissions analysis requirements. (Air Quality Memorandum, January 11, 2013)

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is

| Potentially significant impact | Less than significant impact with mitigation | Less than significant impact | No impact |
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non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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*Explanation:* The proposed project would not result in a cumulatively considerable net increase of any criteria pollutant or exceed quantitative thresholds for ozone precursors because it does not increase capacity and it is exempt from regional emissions analysis. (Air Quality Memorandum, January 11, 2013)

d) Expose sensitive receptors to substantial pollutant concentrations?

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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*Explanation:* The proposed project would not expose sensitive receptors to substantial pollutant concentrations, and it is exempt from regional emissions analysis requirements. (Air Quality Memorandum, January 11, 2013)

e) Create objectionable odors affecting a substantial number of people?

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

*Explanation:* The proposed project would not create objectionable odors affecting a substantial number of people. (Air Quality Memorandum, January 11, 2013)

**IV. BIOLOGICAL RESOURCES** — Would the project:

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 Game or U.S. Fish and Wildlife Service?

|                          |                          |                                     |                          |
|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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*Explanation:* The proposed project would not have a substantial adverse effect, 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 the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. Findings from the reconnaissance surveys and a review of species lists from the California Natural Diversity Database, the U.S. Fish and Wildlife Service and the California Native Plant Society for the Cloverdale 7.5-minute topographic quadrangles did not indicate that any state or federally listed threatened or endangered species are likely to occur in the project area. (Natural Environment Study Minimal Impact and Technical compliance memo, October 22, 2012)

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

|                          |                                     |                          |                          |
|--------------------------|-------------------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
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| Potentially significant impact | Less than significant impact with mitigation | Less than significant impact | No impact |
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*Explanation:* The project would affect oak woodland habitat containing coast live oaks, which would require compensatory mitigation. (Natural Environment Study Minimal Impact and Technical compliance memo, October 22, 2012)

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

*Explanation:* The proposed project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. The project area is not located within any wetlands. (Natural Environment Study Minimal Impact and Technical compliance memo, October 22, 2012)

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?

*Explanation:* The proposed project would not 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 because, according to California Natural Diversity Database, no occurrences of special-status animal species were found to occur within or near the project site. (Natural Environment Study Minimal Impact and Technical compliance memo, October 22, 2012)

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

*Explanation:* See additional explanation in Section IV.

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?

*Explanation:* The proposed project would affect oak woodlands containing coast live oak that are protected under Senate Concurrent Resolution No.17 as well as the 2004 Senate Bill 1334. (Natural Environment Study Minimal Impact and Technical compliance memo, October 22, 2012)

**V. CULTURAL RESOURCES** — Would the project:

a) Cause a substantial adverse change in the significance

|                                |  |                              |           |
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| Potentially significant impact | Less than significant impact with mitigation | Less than significant impact | No impact |
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of a historical resource as defined in §15064.5?

*Explanation:* The proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in §15064.5 because according to the Historic Property Survey Report, there are no historic resources within the project area limits. (Historic Property Survey Report, December 12, 2012)

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Archaeological resources are considered “historical resources” and are covered under question V(a).

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

*Explanation:* Excavations to repair the storm damaged areas at Locations 1 and 2 on State Route 128 in Sonoma County appear unlikely to affect sensitive paleontological resources. (Paleontological Report, May 24, 2012)

d) Disturb any human remains, including those interred outside of formal cemeteries?

*Explanation:* The proposed project would not disturb any human remains, including those interred outside of formal cemeteries, because a record search did not indicate the presence of Native American cultural resources in the immediate project area. If unidentified human remains are discovered during construction, it is Caltrans’ policy that work be halted in that area until a qualified archaeologist can assess the significance of the find. (Historic Property Survey Report, December 12, 2012)

**VI. GEOLOGY AND SOILS** — Would the project:

a) Expose people or structures to 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.

*Explanation:* According to Alquist-Priolo fault zoning map, the proposed project area is not in earthquake fault zones. ( Memo, December 2012)

ii) Strong seismic ground shaking?

*Explanation:* The retaining wall would not increase seismic ground shaking. (Memo, December 2012)

iii) Seismic-related ground failure, including liquefaction?

| Potentially significant impact | Less than significant impact with mitigation | Less than significant impact | No impact |
|--------------------------------|--|------------------------------|-----------|
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|                          |                          |                          |                                     |
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| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

*Explanation:* The retaining wall would not increase seismic ground failure. (Memo, December 2012)

iv) Landslides? 

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

*Explanation:* The retaining wall would help protect against any further landslides. (Memo, December 2012)

b) Result in substantial soil erosion or the loss of topsoil? 

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

*Explanation:* The retaining wall would minimize soil erosion. (Memo, December 2012)

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse? 

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

*Explanation:* The retaining wall is designed to limit landslides. (Memo, December 2012)

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property. 

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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*Explanation:* The proposed project is located in a rural area with no property in the vicinity.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? 

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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*Explanation:* There is no wastewater disposal system proposed as part of the project. (Water Quality and Storm Water Memo, December 2012)

**VII. GREENHOUSE GAS EMISSIONS:** Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

An assessment of the greenhouse gas emissions and climate change is included in Appendix A of the environmental document. While Caltrans

|                                |  |                              |           |
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| Potentially significant impact | Less than significant impact with mitigation | Less than significant impact | No impact |
|--------------------------------|--|------------------------------|-----------|

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

has included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is Caltrans' determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and CEQA significance, it is too speculative to make a significance determination on the project's direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in Appendix A of the environmental document.

**VIII. HAZARDS AND HAZARDOUS MATERIALS —**

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

*Explanation:* The proposed project would not create a significant hazard to the public or the environment because no routine transport, use or disposal of any hazardous materials off-site is anticipated. (Hazardous Waste Compliance Memorandum, October 25, 2012)

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?

*Explanation:* The proposed project would not create a significant hazard to the public or the environment because no hazardous materials are proposed for use within this project. (Hazardous Waste Compliance Memorandum, October 25, 2012)

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

*Explanation:* The proposed project would not emit hazardous emissions within one-quarter mile of an existing or proposed school because there is no school within 2 miles of the project area and because no hazardous materials are proposed for use within this project. (Hazardous Waste Compliance Memorandum, October 25, 2012)

d) Be located on a site that 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?

|                                |  |                              |           |
|--------------------------------|--|------------------------------|-----------|
| Potentially significant impact | Less than significant impact with mitigation | Less than significant impact | No impact |
|--------------------------------|--|------------------------------|-----------|

*Explanation:* The proposed project would not create a significant hazard to the public or the environment because it is not on or near a hazardous materials and/or waste site. (Hazardous Waste Compliance Memorandum, October 25, 2012)

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 for people residing or working in the project area?

*Explanation:* The proposed project would not result in an airport land use plan-related safety hazard for people residing or working in the project area because it is not located within 2 miles of an airport. (Sonoma County General Plan, Land Use Element, updated December 2011)

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

*Explanation:* The proposed project would not result in a private airstrip-related hazard for people residing or working in the project area because it is not located near a private air strip. (Sonoma County General Plan, Land Use Element, updated December 2011)

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

*Explanation:* The project is located in a rural area with no housing in the project vicinity. (Sonoma County General Plan, Land Use Element, updated December 2011)

h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

*Explanation:* The proposed project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires because it is not in an area where there are residences intermixed with wildlands. (Site visit, March 2012)

**IX. HYDROLOGY AND WATER QUALITY —**

Would the project:

a) Violate any water quality standards or waste discharge requirements?

*Explanation:* The proposed project would not violate water quality standards or waste discharge requirements because water quality standards will be maintained through the routine implementation of Caltrans' storm water best management practices. (Water Quality Technical Memo, December 2012)

| Potentially significant impact | Less than significant impact with mitigation | Less than significant impact | No impact |
|--------------------------------|--|------------------------------|-----------|
|--------------------------------|--|------------------------------|-----------|

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

*Explanation:* The proposed project will not substantially deplete groundwater supplies, substantially interfere with groundwater recharge, result in a deficit in aquifer volume or lowering the groundwater table level, or cause a drop in or interfere with the function of existing or planned uses for which permits have been granted. (Water Quality Technical Memo, December 2012)

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

*Explanation:* The proposed project would not substantially alter the existing drainage pattern, alter the course of a stream, or substantially increase the rate or amount of surface runoff that could otherwise result in on- or off-site flooding. (Floodplain Study, November 2012)

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

*Explanation:* The proposed project would not substantially alter the existing drainage pattern of the site or area such a way to result in flooding on-or off-site. (Floodplain Study, November 2012)

e) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

*Explanation:* The proposed project is not expected to exceed the capacity of the existing or planned storm water drainage systems. And, through the routine implementation of Caltrans' storm water best management practices, the project would not provide substantial sources of polluted runoff. (Water Quality Technical Memo, December 2012)

f) Otherwise substantially degrade water quality?

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

*Explanation:* The proposed project would not violate water quality standards or waste discharge requirements because water quality standards will be maintained through the routine implementation of Caltrans' storm water best management practices. (Water Quality Technical Memo, December 2012)

g) Place housing within a 100-year flood hazard area

| Potentially significant impact | Less than significant impact with mitigation | Less than significant impact | No impact                           |
|--------------------------------|--|------------------------------|-------------------------------------|
| <input type="checkbox"/>       | <input type="checkbox"/>                     | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |

*Explanation:* The proposed project would not place housing within a 100-year flood hazard area because it does not include housing construction. (Floodplain Study, November 2012)

h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?

*Explanation:* The proposed project would not place structures that would impede or redirect flood flows within the 100-year floodplain area. (Floodplain Study, November 2012)

i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

*Explanation:* The proposed project would not build a dam or levee. (Floodplain Study, November 2012)

j) Result in inundation by a seiche, tsunami, or mudflow?

*Explanation:* The proposed project is not in an area subject to seiche, tsunami, or mudflow. (Floodplain Study, November 2012)

**X. LAND USE AND PLANNING —** Would the project:

a) Physically divide an established community?

*Explanation:* The proposed project would not physically divide an established community because there are no permanent residents that live in the immediate vicinity that would have to be relocated. (Historic Property Survey Report, December 2012)

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

*Explanation:* The proposed project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction of the project adopted for the purpose of avoiding or mitigating and environmental effect because it is not found within an area that has that function. (Sonoma County General Plan, Land Use Element, updated December 2011)

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

*Explanation:* The proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan. (Sonoma County General Plan, Land Use Element, updated December 2011)

|                                |  |                              |           |
|--------------------------------|--|------------------------------|-----------|
| Potentially significant impact | Less than significant impact with mitigation | Less than significant impact | No impact |
|--------------------------------|--|------------------------------|-----------|

**XI. MINERAL RESOURCES** — Would the project:

- 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?

*Explanation:* The proposed project would not 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 because it is not located in an area where commercially viable mineral resources are known to exist. (Damage Assessment Form, dated May 2011)

- 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?

*Explanation:* The proposed project would not result in the loss of availability of a locally important mineral resource recovery site delineated on the areas' applicable land use plans because it is not located in an area where commercially viable mineral resources are known to exist. (Sonoma County General Plan, Land Use Element, updated December 2011)

**XII. NOISE** — Would the project result in:

- a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

*Explanation:* The proposed project would not expose people to levels in excess of applicable standards established by jurisdictional agencies because there are no permanent residences within the project vicinity. (Noise Technical Memo, January 2013)

- b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

*Explanation:* The proposed project would not expose people to excessive vibration or noise, or generate noise levels in excess of applicable standards established by jurisdictional agencies because it will comply with Caltrans' Standard Construction Noise Specifications. After construction, the existing noise levels would be unchanged. (Noise Technical Memo, January 2013)

- c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

*Explanation:* The proposed project would not have a substantial permanent increase in ambient noise levels in the project vicinity above existing levels because the project is not a capacity-increasing project. (Noise Technical Memo, January 2013)

- d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

|                                |  |                              |           |
|--------------------------------|--|------------------------------|-----------|
| Potentially significant impact | Less than significant impact with mitigation | Less than significant impact | No impact |
|--------------------------------|--|------------------------------|-----------|

*Explanation:* The proposed project would not expose people to a substantial temporary or periodic increase in ambient noise levels, or generate noise levels in excess of applicable standards established by jurisdictional agencies because it will comply with Caltrans' Standard Construction Noise Specifications. After construction, the existing noise levels would be unchanged. (Noise Technical Memo, January 2013)

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 expose people residing or working in the project area to excessive noise levels?

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

*Explanation:* The proposed project is not within an airport use plan, nor is a public airport found within 2 miles of the project location. (Noise Technical Memo, January 2013)

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

*Explanation:* The proposed project is not found within the vicinity of a private airstrip. (Noise Technical Memo, January 2013)

**XIII. POPULATION AND HOUSING** — Would the project:

a) Induce substantial 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)?

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

*Explanation:* The proposed project is not considered capacity increasing and would not induce substantial population growth in the area, directly or indirectly. There is no business, home, or infrastructure building within the project vicinity. (Sonoma County General Plan, Land Use Element, updated December 2011)

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

*Explanation:* The proposed project would not cause or require displacement of any residents or remove any residential structures because there are no residents living within a few miles away from the project area. (Historic Property Survey Report, December 12, 2012)

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

|                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

*Explanation:* The proposed project would not cause or require displacement of any residents or remove any residential structures. (Historic Property Survey Report, December 12, 2012)

|                                |  |                              |           |
|--------------------------------|--|------------------------------|-----------|
| Potentially significant impact | Less than significant impact with mitigation | Less than significant impact | No impact |
|--------------------------------|--|------------------------------|-----------|

**XIV. PUBLIC SERVICES —**

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

Fire protection?

*Explanation:* The proposed project is not expected to result in a substantial adverse impact associated with maintaining acceptable service ratios or response times for emergency and/or public services such as fire protection. There will be at least one lane of traffic, with flagger control, open at all times during construction. (Memo, January 2013)

Police protection?

*Explanation:* The proposed project is not expected to result in a substantial adverse impact associated with maintaining acceptable service ratios or response times for emergency and/or public services such as police protection. There will be at least one lane of traffic, with flagger control, open at all times during construction. (Memo, January 2013)

Schools?

*Explanation:* The proposed project is not expected to result in a substantial adverse impact associated with maintaining acceptable service ratios or response times for emergency and/or public services such as schools because there are no public schools within the project vicinity. (Memo, January 2013)

Parks?

*Explanation:* The proposed project is not expected to result in a substantial adverse impact associated with maintaining acceptable service ratios or response times for emergency and/or public services such as parks because there are no parks within the project vicinity. (Memo, January 2013)

Other public facilities?

*Explanation:* The proposed project is not expected to result in a substantial adverse impact associated with maintaining acceptable service ratios or response times for emergency and/or public services such as fire, police, schools or other facilities. There will be at least one lane of traffic, with flagger control, open at all times during construction. (Memo, January 2013)

**XV. RECREATION —**

|                                |  |                              |           |
|--------------------------------|--|------------------------------|-----------|
| Potentially significant impact | Less than significant impact with mitigation | Less than significant impact | No impact |
|--------------------------------|--|------------------------------|-----------|

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?

*Explanation:* The proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of those facilities would be accelerated because the project is not considered capacity increasing and would not induce substantial population growth in the area, directly or indirectly, because it will not place any new businesses, homes, or infrastructure. (Damage Assessment Form, May 2011)

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

*Explanation:* The proposed project would include or require the construction or expansion or use of recreational facilities which might have an adverse physical effect on the environment because the project is not considered capacity increasing and would not induce substantial population growth in the area, directly or indirectly, because it will not place any new businesses, homes, or infrastructure. (Damage Assessment Form, May 2011)

**XVI. TRANSPORTATION/TRAFFIC —** Would the project:

a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

*Explanation:* The proposed project would not cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system. Having one lane open is adequate for this project. (Memo, January 2013)

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

*Explanation:* The proposed project would repair and stabilize two locations (1 and 2) on State Route 128. It does not include adding any new features to the current highway that would increase traffic or induce population growth. (Memo, January 2013)

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

| Potentially significant impact | Less than significant impact with mitigation | Less than significant impact | No impact |
|--------------------------------|--|------------------------------|-----------|
|--------------------------------|--|------------------------------|-----------|

*Explanation:* The proposed project would repair and stabilize two locations (1 and 2) on State Route 128. It does not include adding any new features to the current highway that would result in substantial safety risks. (Memo, January 2013)

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

*Explanation:* The proposed project would repair and stabilize two locations (1 and 2) on State Route 128. It does not include adding any new features to the current highway that would substantially increase hazards. (Memo, January 2013)

e) Result in inadequate emergency access?

*Explanation:* The proposed project would not result in inadequate emergency access. There will be at least one lane of traffic, with flagger control, open at all times during construction. Having one lane open during the construction is adequate. (Memo, January 2013)

f) Result in inadequate parking capacity?

*Explanation:* The project is located in a rural area and there are no houses in the project vicinity. (Memo, January 2013)

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

*Explanation:* The proposed project would repair and stabilize two locations (1 and 2) on State Route 128. The project area is located in a rural area and is not served by alternative methods of transportation. (Memo, January 2013)

**XVII. UTILITY AND SERVICE SYSTEMS —** Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

*Explanation:* The proposed project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board because it will not place any new water-generating sources. (Water Quality Technical Memo, December 2012)

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

| Potentially significant impact | Less than significant impact with mitigation | Less than significant impact | No impact |
|--------------------------------|--|------------------------------|-----------|
|--------------------------------|--|------------------------------|-----------|

*Explanation:* The proposed project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities that could cause significant environmental effects because it is a safety project, designed to improve current traffic conditions and will not change the current water or wastewater treatment capacities. (Water Quality Technical Memo, December 2012)

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

*Explanation:* The proposed project would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. (Water Quality Technical Memo, December 2012)

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

*Explanation:* There are sufficient water supplies available to serve construction needs. (Water Quality Technical Memo, December 2012)

e) Result in a determination by the wastewater treatment provider that 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?

*Explanation:* The project does not include additional water services. (Water Quality Technical Memo, December 2012)

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

*Explanation:* This storm water drainage project would not require additional solid waste disposal. (Water Quality Technical Memo, December 2012)

g) Comply with federal, state, and local statutes and regulations related to solid waste?

*Explanation:* The proposed project would not generate any additional solid waste. (Water Quality Technical Memo, December 2012)

**XVIII. MANDATORY FINDINGS OF SIGNIFICANCE —**

a) Does the project have the potential to 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

|                                |  |                              |           |
|--------------------------------|--|------------------------------|-----------|
| Potentially significant impact | Less than significant impact with mitigation | Less than significant impact | No impact |
|--------------------------------|--|------------------------------|-----------|

levels, threaten to eliminate a plant or animal community, 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?

*Explanation:* The proposed project would not degrade the quality of the environment. Findings from the reconnaissance surveys and a review of species lists from the California Natural Diversity Database, the U.S. Fish and Wildlife Service and the California Native Plant Society for the Cloverdale 7.5-minute topographic quadrangles did not indicate that any state or federally listed threatened or endangered species are likely to occur in the project area. (Natural Environment Study Minimal Impact and Technical Compliance Memo, October 2012)

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)?

*Explanation:* The proposed project would not have impacts that are individually limited, but cumulatively considerable, because at the time of this Initial Study, there are no other construction projects that would reasonably be expected to contribute to a cumulative effect—together with the proposed project. Therefore, it has been determined that the proposed project improvements, once the appropriate avoidance, minimization, and mitigation measures have been implemented, would not cause measurable cumulative effects to the surrounding natural resources. (Natural Environment Study Minimal Impact and Technical Compliance Memo, October 2012)

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

*Explanation:* As a result of all environmental studies completed, and cited elsewhere in this checklist, it has been determined that the project would not have substantial direct or indirect adverse effects on human beings.

## ***Explanations for Checklist Section IV***

### **IV. Biological Resources**

A Natural Environment Study–Minimal Impacts (NES-MI), dated October 2012, was prepared for Location 1 to examine potential impacts to state and federally listed species, waters and other natural resources for repair of the washout on State Route 128 at post mile 2.36 in Sonoma County. The project proposes to repair the washout and stop the longitudinal cracks on the westbound section of State Route 128 at post mile 2.36 by constructing a soldier pile wall on the slope along the westbound lane. A Biological Compliance memo, dated October 2012, was prepared for Location 2 on State Route 128 at post mile 2.6. The project would install horizontal drains to mitigate groundwater.

### ***Affected Environment***

The habitat within and near the project area consists of oak woodland dominated mainly by black oak, coast live oak, and poison oak. Reconnaissance surveys and a review of species lists from the California Natural Diversity Database, the U.S. Fish and Wildlife Service, and the California Native Plant Society (CNPS) for the Cloverdale 7.5-minute topographic quadrangle did not indicate that any state or federally listed threatened or endangered species are likely to occur in the project area.

### ***Environmental Consequences***

Construction of the proposed project at Locations 1 and 2 would not affect any special-status species or related habitat. A minor amount of vegetation would be removed, and a small amount of excavation would be required to build the retaining walls and widen the roadway. There may be potential for material from construction to discharge into the creek, so a 1602 permit will be required for potential temporary impacts to Oat Valley Creek. The proposed project would affect oak woodland habitat containing coast live oaks, which would require compensatory mitigation.

During construction of the proposed project at Location 1, a minor amount of vegetation and landslide debris would be removed to place the erosion control mat. Caltrans' best management practices would be implemented to control erosion during construction and post-construction.

For Location 2, permanent impacts include approximately 6,900 square feet and temporary impacts include approximately 5,800 square feet, to oak woodland habitat.

The proposed project would require approximately 12,700 square feet of permanent right-of-way easement.

***Avoidance, Minimization, and/or Mitigation Measures***

Required compensatory mitigation would include replanting native coast live oaks in-kind at a 3:1 ratio for trees between 4 to 25 inches in diameter at breast height. Trees over 25 inches in diameter at breast height are defined as heritage trees and require replanting at a higher ratio of 10:1.

If California Native Plant Society-listed plants are found during pre-construction surveys, then the following minimization measures may be implemented under the direction of a Caltrans biologist:

- The topsoil would be collected and salvaged from areas where the California Native Plant Society-listed plants would be disturbed. Salvaged topsoil would be stored at an appropriate site within the project area. Topsoil would be replaced in areas where there was temporary disturbance to the California Native Plant Society-listed plants.
- Whole plants, including the roots, would be collected and transplanted to a nearby undisturbed location within the botanical study area.

Construction of the proposed project would not affect any special-status species or their habitat.

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988, has led to increased efforts devoted to greenhouse gas emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of greenhouse gases generated by human activity including carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF<sub>6</sub>), HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of greenhouse gas emissions is electricity generation, followed by transportation. In California, however, transportation sources (including passenger cars, light duty trucks, other trucks, buses, and motorcycles make up the largest source (second to electricity generation) of greenhouse gas emitting sources. The dominant greenhouse gas emitted is CO<sub>2</sub>, mostly from fossil fuel combustion.

There are typically two terms used when discussing the impacts of climate change. "Greenhouse Gas Mitigation" is a term for reducing greenhouse gas emissions in order to reduce or "mitigate" the impacts of climate change. "Adaptation," refers to the effort of planning for and adapting to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels)<sup>1</sup>.

There are four primary strategies for reducing greenhouse gas emissions from transportation sources: 1) improving the transportation system and operational efficiencies, 2) reducing growth of vehicle miles traveled (VMT), 3) transitioning to lower greenhouse gas emitting fuels, and 4) improving vehicle technologies. To be most effective all four strategies should be pursued collectively. The following Regulatory Setting section outlines state and federal efforts to comprehensively reduce greenhouse gas emissions from transportation sources.

## **Regulatory Setting**

### *State*

With the passage of several pieces of legislation including State Senate and Assembly bills and Executive Orders, California launched an innovative and pro-active approach to dealing with greenhouse gas emissions and climate change.

Assembly Bill 1493 (AB 1493), Pavley. Vehicular Emissions: Greenhouse Gases, 2002: requires the California Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck greenhouse gas emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-

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<sup>1</sup> [http://climatechange.transportation.org/ghg\\_mitigation/](http://climatechange.transportation.org/ghg_mitigation/)

model year. In June 2009, the U.S. Environmental Protection Agency (U.S. EPA) Administrator granted a Clean Air Act waiver of preemption to California. This waiver allowed California to implement its own greenhouse gas emission standards for motor vehicles beginning with model year 2009. California agencies will be working with federal agencies to conduct joint rulemaking to reduce greenhouse gas emissions for passenger cars model years 2017-2025.

Executive Order (EO) S-3-05: (signed on June 1, 2005, by former Governor Arnold Schwarzenegger) the goal of this EO is to reduce California's greenhouse gas emissions to: 1) year 2000 levels by 2010, 2) year 1990 levels by the 2020, and 3) 80 percent below the year 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32.

AB 32, the Global Warming Solutions Act of 2006, Núñez and Pavley: AB 32 sets the same overall greenhouse gas emissions reduction goals as outlined in EO S-3-05, while further mandating that ARB create a scoping plan, (which includes market mechanisms) and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases."

Executive Order S-20-06: (signed on October 18, 2006 by former Governor Arnold Schwarzenegger) further directs state agencies to begin implementing AB 32, including the recommendations made by the California's Climate Action Team.

Executive Order S-01-07: (signed on January 18, 2007 by former Governor Arnold Schwarzenegger) set forth the low carbon fuel standard for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least ten percent by the year 2020.

Senate Bill 97 (SB 97) Chapter 185, 2007: required the Governor's Office of Planning and Research (OPR) to develop recommended amendments to the California Environmental Quality Act (CEQA) Guidelines for addressing greenhouse gas emissions. The amendments became effective on March 18, 2010.

Caltrans Director's Policy 30 (DP-30) Climate Change (approved June 22, 2012): is intended to establish a Department policy that will ensure coordinated efforts to incorporate climate change into Departmental decisions and activities. This policy contributes to the Department's stewardship goal to preserve and enhance California's resources and assets.

### ***Federal***

Although climate change and greenhouse gas reduction is a concern at the federal level; currently there are no regulations or legislation that have been enacted specifically addressing greenhouse gas emissions reductions and climate change at the project level. Neither the United States Environmental Protection Agency (U.S. EPA) nor the Federal Highway Administration (FHWA) has promulgated explicit guidance or methodology to conduct project-level greenhouse gas analysis. As stated on FHWA's climate change website (<http://www.fhwa.dot.gov/hep/climate/index.htm>), climate change considerations should be

integrated throughout the transportation decision-making process—from planning through project development and delivery. Addressing climate change mitigation and adaptation up front in the planning process will facilitate decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project level decision-making. Climate change considerations can easily be integrated into many planning factors, such as supporting economic vitality and global efficiency, increasing safety and mobility, enhancing the environment, promoting energy conservation, and improving the quality of life.

The four strategies set forth by FHWA to lessen climate change impacts do correlate with efforts that the state has undertaken and is undertaking to deal with transportation and climate change; the strategies include improved transportation system efficiency, cleaner fuels, cleaner vehicles, and a reduction in the growth of vehicle hours travelled.

Climate change and its associated effects are also being addressed through various efforts at the federal level to improve fuel economy and energy efficiency, such as the “National Clean Car Program” and EO 13514 - *Federal Leadership in Environmental, Energy and Economic Performance*.

Executive Order 13514 is focused on reducing greenhouse gases internally in federal agency missions, programs and operations, but also direct federal agencies to participate in the Interagency Climate Change Adaptation Task Force, which is engaged in developing a national strategy for adaptation to climate change.

On April 2, 2007, in *Massachusetts v. EPA*, 549 U.S. 497 (2007), the Supreme Court found that greenhouse gases are air pollutants covered by the Clean Air Act and that the U.S. EPA has the authority to regulate greenhouse gas emissions. The Court held that the U.S. EPA Administrator must determine whether or not emissions of greenhouse gases from new motor vehicles cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the U.S. EPA Administrator signed two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act:

- **Endangerment Finding:** The Administrator found that the current and projected concentrations of the six key well-mixed greenhouse gases--carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>)—in the atmosphere threaten the public health and welfare of current and future generation.
- **Cause or Contribute Finding:** The Administrator found that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gases pollution which threatens public health and welfare.

Although these findings did not themselves impose any requirements on industry or other entities, this action was a prerequisite to finalizing the U.S. EPA's *Proposed Greenhouse Gas Emission Standards for Light-Duty Vehicles*, which was published on September 15, 2009<sup>2</sup>. On May 7, 2010 the final *Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards* was published in the Federal Register.

U.S. EPA and the National Highway Traffic Safety Administration (NHTSA) are taking coordinated steps to enable the production of a new generation of clean vehicles with reduced greenhouse gas emissions and improved fuel efficiency from on-road vehicles and engines. These next steps include developing the first-ever greenhouse gas regulations for heavy-duty engines and vehicles, as well as additional light-duty vehicle greenhouse gas regulations. These steps were outlined by President Obama in a Presidential Memorandum on May 21, 2010.<sup>3</sup>

The final combined U.S. EPA and NHTSA standards that make up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The standards require these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide (CO<sub>2</sub>) per mile, (the equivalent to 35.5 miles per gallon [MPG] if the automobile industry were to meet this CO<sub>2</sub> level solely through fuel economy improvements. Together, these standards will cut greenhouse gas emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016).

On November 16, 2011, U.S. EPA and NHTSA issued their joint proposal to extend this national program of coordinated greenhouse gas and fuel economy standards to model years 2017 through 2025 passenger vehicles.

### **Project Analysis**

An individual project does not generate enough greenhouse gas emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its *incremental* change in emissions when combined with the contributions of all other sources of greenhouse gas.<sup>4</sup> In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (CEQA Guidelines sections 15064(h)(1) and 15130). To make this determination the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult, if not impossible, task.

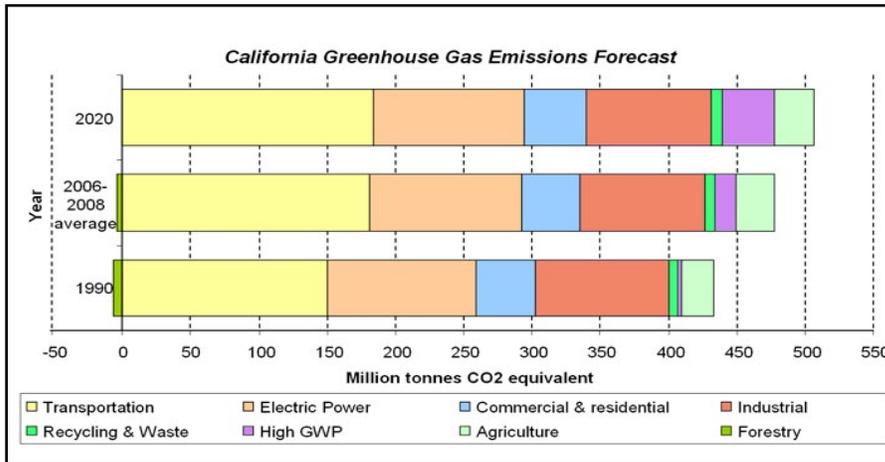
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<sup>2</sup> <http://www.epa.gov/oms/climate/regulations.htm#1-1>

<sup>3</sup> <http://epa.gov/otaq/climate/regulations.htm>

<sup>4</sup> This approach is supported by the AEP: *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), as well as the South Coast Air Quality Management District (Chapter 6: The CEQA Guide, April 2011) and the US Forest Service (Climate Change Considerations in Project Level NEPA Analysis, July 13, 2009).

The AB 32 Scoping Plan mandated by AB 32 contains the main strategies California will use to reduce greenhouse gas emissions. As part of its supporting documentation for the Draft Scoping Plan, ARB released the greenhouse gas inventory for California (forecast last updated: October 28, 2010). The forecast is an estimate of the emissions expected to occur in the year 2020 if none of the foreseeable measures included in the Scoping Plan were implemented. The base year used for forecasting emissions is the average of statewide emissions in the greenhouse gas inventory for 2006, 2007, and 2008.



Source: <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>

The Department and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing greenhouse gas emission reduction and climate change. Recognizing that 98 percent of California’s greenhouse gas emissions are from the burning of fossil fuels and 40 percent of all human made greenhouse gas emissions are from transportation, the Department has created and is implementing the Climate Action Program at Caltrans that was published in December 2006.<sup>5</sup>

The purpose of the project is to repair storm damage and stabilize landslides on adjacent slopes on State Route (SR) 128 at Post Miles 2.36 and 2.6 in Sonoma County. Because the project would not increase capacity nor vehicle hours travelled, no increases in operational greenhouse gas emissions are anticipated. While construction emissions of greenhouse gases are unavoidable, there will likely be long term benefits with improved safety and operation.

**Construction Emissions**

Greenhouse gas emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction greenhouse gas emissions include emissions produced as a result of material processing, emissions produced by onsite construction equipment, and emissions arising from traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in

<sup>5</sup> Caltrans Climate Action Program is located at the following web address: [http://www.dot.ca.gov/hq/tpp/offices/ogm/key\\_reports\\_files/State\\_Wide\\_Strategy/Caltrans\\_Climate\\_Action\\_Program.pdf](http://www.dot.ca.gov/hq/tpp/offices/ogm/key_reports_files/State_Wide_Strategy/Caltrans_Climate_Action_Program.pdf)

plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the greenhouse gas emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events.

### ***CEQA Conclusion***

While it is Caltrans's determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct impact and its contribution on the cumulative scale to climate change, Caltrans is firmly committed to implementing measures to help reduce greenhouse gas emissions. These measures are outlined in the following section.

### ***Adaptation Strategies***

"Adaptation strategies" refer to how the Department and others can plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damage to roadbeds from longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. There may also be economic and strategic ramifications as a result of these types of impacts to the transportation infrastructure.

At the federal level, the Climate Change Adaptation Task Force, co-chaired by the White House Council on Environmental Quality (CEQ), the Office of Science and Technology Policy (OSTP), and the National Oceanic and Atmospheric Administration (NOAA), released its interagency report on October 14, 2010 outlining recommendations to President Obama for how Federal Agency policies and programs can better prepare the U.S. to respond to the impacts of climate change. The Progress Report of the Interagency Climate Change Adaptation Task Force recommends that the federal government implement actions to expand and strengthen the nation's capacity to better understand, prepare for, and respond to climate change.

Climate change adaptation must also involve the natural environment as well. Efforts are underway on a statewide-level to develop strategies to cope with impacts to habitat and biodiversity through planning and conservation. The results of these efforts will help California agencies plan and implement mitigation strategies for programs and projects.

On November 14, 2008, former Governor Arnold Schwarzenegger signed EO S-13-08 which directed a number of state agencies to address California's vulnerability to sea level rise

caused by climate change. This EO set in motion several agencies and actions to address the concern of sea level rise.

The California Natural Resources Agency (Resources Agency) was directed to coordinate with local, regional, state and federal public and private entities to develop. The California Climate Adaptation Strategy (Dec 2009)<sup>6</sup>, which summarizes the best known science on climate change impacts to California, assesses California's vulnerability to the identified impacts, and then outlines solutions that can be implemented within and across state agencies to promote resiliency.

The strategy outline is in direct response to EO S-13-08 that specifically asked the Resources Agency to identify how state agencies can respond to rising temperatures, changing precipitation patterns, sea level rise, and extreme natural events. Numerous other state agencies were involved in the creation of the Adaptation Strategy document, including the California Environmental Protection Agency; Business, Transportation and Housing; Health and Human Services; and the Department of Agriculture. The document is broken down into strategies for different sectors that include: Public Health; Biodiversity and Habitat; Ocean and Coastal Resources; Water Management; Agriculture; Forestry; and Transportation and Energy Infrastructure. As data continues to be developed and collected, the state's adaptation strategy will be updated to reflect current findings.

The Resources Agency was also directed to request the National Academy of Science to prepare a Sea Level Rise Assessment Report by December 2010<sup>7</sup> to advise how California should plan for future sea level rise. The report is to include:

- Relative sea level rise projections for California, Oregon and Washington taking into account coastal erosion rates, tidal impacts, El Niño and La Niña events, storm surge and land subsidence rates.
- The range of uncertainty in selected sea level rise projections.
- A synthesis of existing information on projected sea level rise impacts to state infrastructure (such as roads, public facilities and beaches), natural areas, and coastal and marine ecosystems.
- A discussion of future research needs regarding sea level rise.

Prior to the release of the final Sea Level Rise Assessment Report, all state agencies that are planning to construct projects in areas vulnerable to future sea level rise were directed to consider a range of sea level rise scenarios for the years 2050 and 2100 in order to assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea level rise. Sea level rise estimates should also be used in conjunction with information regarding local uplift and subsidence, coastal erosion rates, predicted higher high water levels, storm surge and storm wave data

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<sup>6</sup> <http://www.energy.ca.gov/2009publications/CNRA-1000-2009-027/CNRA-1000-2009-027-F.PDF>

<sup>7</sup> Pre-publication copies of the report, *Sea Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future*, were made available from the National Academies Press on June 22, 2012. For more information, please see [http://www.nap.edu/catalog.php?record\\_id=13389](http://www.nap.edu/catalog.php?record_id=13389).

Interim guidance has been released by The Coastal Ocean Climate Action Team (CO-CAT) as well as the Department as a method to initiate action and discussion of potential risks to the states infrastructure due to projected sea level rise.

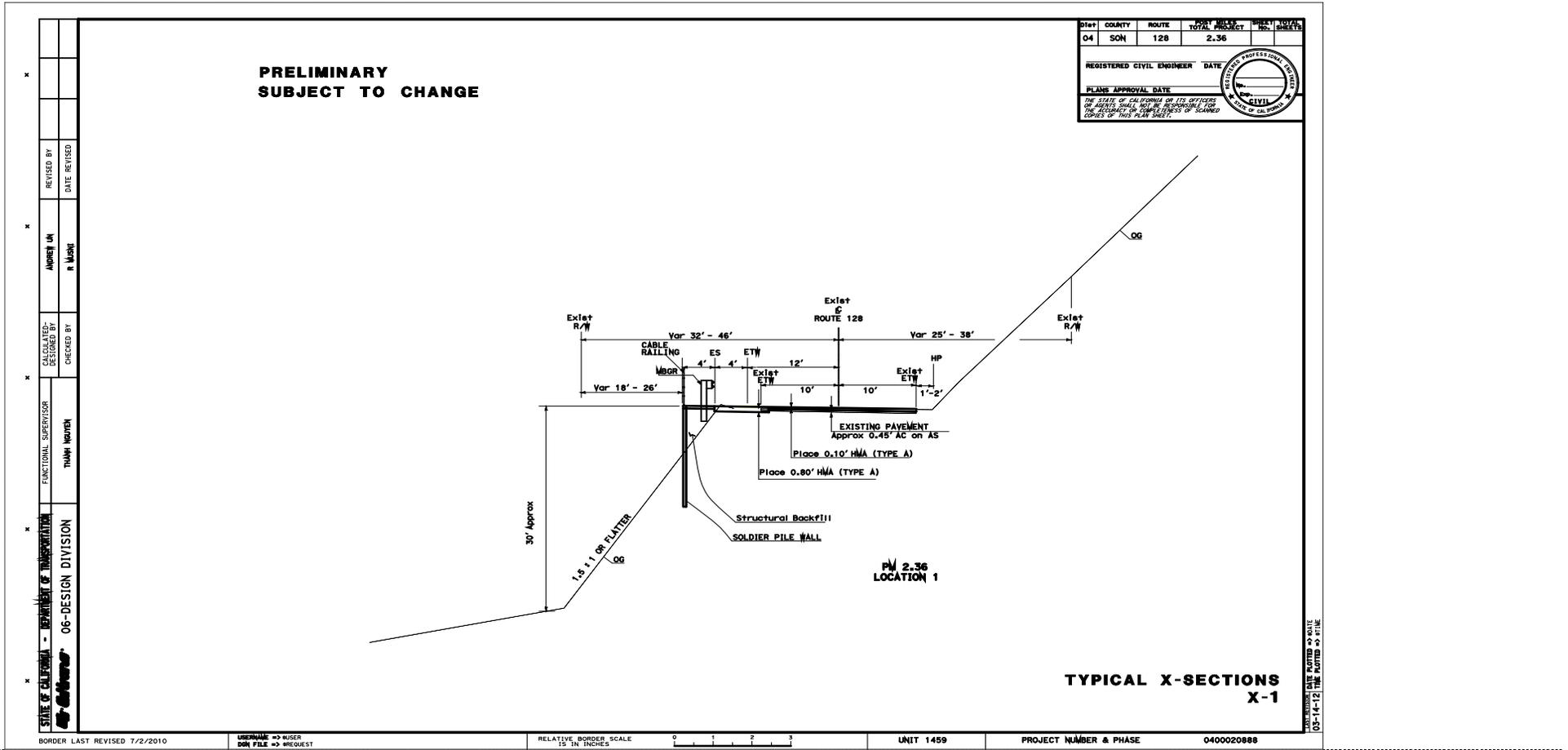
All projects that have filed a Notice of Preparation as of the date of EO S-13-08, and/or are programmed for construction funding from 2008 through 2013, or are routine maintenance projects may, but are not required to, consider these planning guidelines. This project is outside the coastal zone and is not expected to be directly affected by the projected 2050 or 2100 sea level rise inundation.

Executive Order S-13-08 also directed the Business, Transportation, and Housing Agency to prepare a report to assess vulnerability of transportation systems to sea level rise affecting safety, maintenance and operational improvements of the system, and economy of the state. The Department continues to work on assessing the transportation system vulnerability to climate change, including the effect of sea level rise.

Currently, the Department is working to assess which transportation facilities are at greatest risk from climate change effects. However, without statewide planning scenarios for relative sea level rise and other climate change effects, the Department has not been able to determine what change, if any, may be made to its design standards for its transportation facilities. Once statewide planning scenarios become available, the Department will be able review its current design standards to determine what changes, if any, may be warranted in order to protect the transportation system from sea level rise.

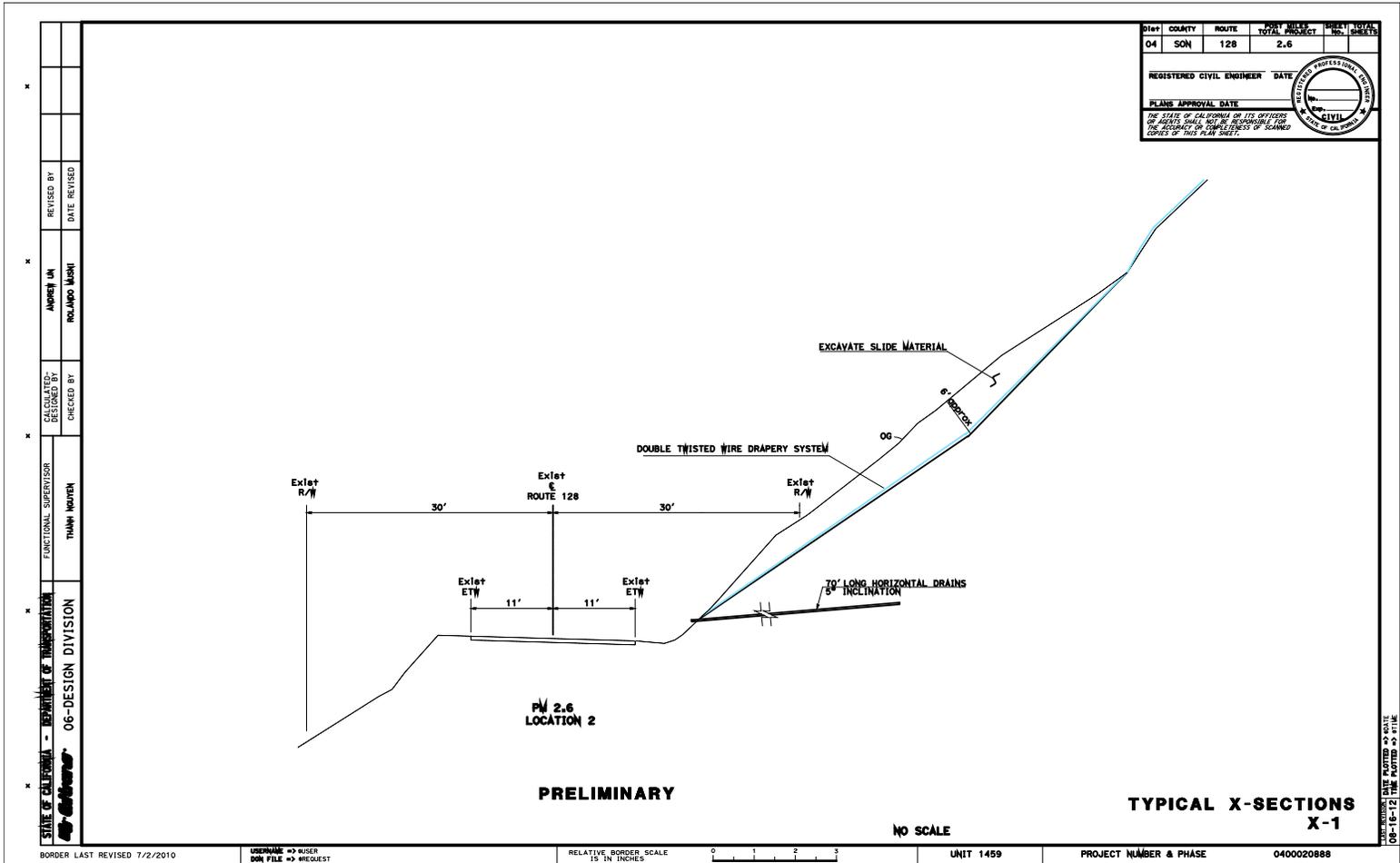
Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system from increased precipitation and flooding; the increased frequency and intensity of storms and wildfires; rising temperatures; and rising sea levels. The Department is an active participant in the efforts being conducted in response to EO S-13-08 and is mobilizing to be able to respond to the National Academy of Science Sea Level Rise Assessment Report.

# Appendix B Project Layout Map and Cross-section



Location 1





DATE PLOTTED → DATE  
09-16-12 TIME PLOTTED → 9:16 AM

## Location 2

