Appendix A Noise Receptors and Barriers

The attached plans show the proposed project limits and the locations of the noise receptors and existing and modeled noise barriers analyzed in Section 2.2.7.

Appendix C Consultation and Coordination

This appendix includes the following consultation and correspondence regarding the proposed project.

- Project Assessment Form for $PM_{2.5}$ Interagency Consultation and MTC Air Quality Conformity Task Force determination that the project is not a Project of Air Quality Concern.
- USFWS species list, dated February 17, 2015.
- The Department's Section 106 Completion Memorandum, dated August 22, 2013.
- USFWS Biological Opinion, dated March 10, 2015.
- FHWA Conformity Determination, dated April 14, 2015.

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Project Assessment Form for PM2.5 Interagency Consultation and MTC Air Quality Conformity Task Force Determination

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Attachment A
Project Assessment Form for $PM_{2.5}$ Interagency Consultation

The San Francisco Bay Area is designated as nonattainment for the 24-hour $PM_{2.5}$ standard. Beginning December 14, 2010, certain projects are required to engage in interagency consultation and complete $PM_{2.5}$ hot-spot analysis as part of the project-level conformity determination process.

The purpose of this form is for the project sponsor to provide sufficient information to allow the Air Quality Conformity Task Force to determine if a project is considered a project of air quality concern and therefore requires a project-level $PM_{2.5}$ hot-spot analysis pursuant to Federal Conformity Regulations.

A project of air quality concern is defined in 40 CRF 93.123(b)(1) as follows:

(i). New or expanded highway projects that have a significant number of or significant increase in diesel vehicles;
(ii). Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;
(iii). New bus and rail terminals and transfer points than have a significant number of diesel vehicles congregating at a single location;
(iv). Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and
(v). Projects in or affecting locations, areas, or categories of sites which are identified in the PM10 or PM2.5 applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

The form is <u>not</u> required under the following circumstances:

The project does not require a project-level PM hot spot analysis since it:

- Is exempt pursuant to 40 CFR 93.126; or
- Is a traffic signal synchronization project under 40 CFR 93.128; or
- Uses no Federal funds AND requires no Federal approval from FHWA or FTA after December 14, 2010.

Instructions

The project sponsor is responsible for taking the following actions:

1. **Fill out this form in its entirety** and ensure that there is a sufficient level of detail about the project for the Air Quality Conformity Task Force to make an informed decision on whether or not a project requires a project-level $PM_{2.5}$ hot-spot analysis. For road projects, make sure to include all of the following pieces of information in the project area: level-of-service, annual average daily truck volume, truck counts, truck percentages. For transit projects, make sure to include all of the following pieces of information: current level of service for the transit routes, proposed changes to level of service for transit routes, number of diesel bus vehicles along the route and congregating, number of overall transit vehicles, ridership.
2. Project sponsors are required to supplement the assessment form with the attachments listed below within the limited qualities listed. Both the Task Force and project sponsors have found that these materials help to better explain the project and its potential impacts.
    - 1-2 maps or graphics which illustrate the project site and the surrounding land uses;

- 1-2 tables or charts which details information about the ADT and truck volumes
- Links to the draft environmental document and/or traffic studies
- A prepared summary of how criteria for a project of air quality concern (defined in 40 CRF 93.123(b)(1)) does or does not apply to the project. See Example 1: Application of Criteria for a Project of Air Quality Concern. This is only intended as a one page summary with emphasis on the third section of the example.

3. Upload and submit this completed form to MTC via FMS so that MTC can schedule this project for interagency consultation by the Air Quality Conformity Task Force. In addition to this form, the project sponsor may upload the $PM_{2.5}$ hot-spot analysis via FMS for review by the Conformity Task Force.
4. Ensure a representative is available to discuss the project at the Air Quality Conformity Task Force meeting if necessary.

Application of Criteria for a Project of Air Quality Concern

Project Title: SR 85 Express Lanes Project

Project Summary for Air Quality Conformity Task Force Meeting: October 27, 2011

Description

- Project will convert existing High-Occupancy Vehicle (HOV) lanes on State Route (SR) 85 to High-Occupancy Toll (HOT) lanes (hereafter known as express lanes)
- A second express lane would be included in both directions of SR 85 between SR 87 and I-280 to address existing and forecasted future HOV lane congestion
- The project would also install new signage, striping, vehicle detection sensor units, and dynamic message signs
- Trucks over 9,000 pounds are and would continue to be prohibited on SR 85 between US 101 (in southern San Jose) and I-280 (PM 0.00 to 18.45; corridor ends at PM 24.1), except for maintenance and emergency vehicles, buses, and recreational vehicles

Background

- Technical studies are in preparation to support NEPA process for Initial Study/Environmental Assessment (IS/EA)
- Public review for scheduled for July to August 2012
- Seeking project-level air quality conformity determination on or before September 2012

Not a Project of Air Quality Concern (40 CFR 93.123(b)(1))

(i) New or expanded highway projects with significant number/increase in diesel vehicles?

- The project would not add capacity for diesel vehicles. Trucks over 9,000 pounds are prohibited on most of the SR 85 corridor, except for maintenance and emergency vehicles, buses, and recreational vehicles.
- Caltrans truck count data for 2009 indicate that truck percentages on SR 85 range from 0.25% to 3.05%, well below the significance threshold.
- Projected 2015 and 2035 annual average daily truck traffic data are below the United States Environmental Protection Agency significance threshold even for the highest-volume freeway segment.

(ii) Affects intersections at LOS D, E, or F with a significant number of diesel vehicles? —Not Applicable

(iii) New bus and rail terminals and transfer points?—Not Applicable

(iv) Expanded bus and rail terminals and transfer points?—Not Applicable

(v) Affects areas identified in PM_{10} or $PM_{2.5}$ implementation plan as site of violation?

- No state implementation plan for $PM_{2.5}$ (due by December 2012)
- Therefore, not identified in plan as an area of potential violation

Project Assessment Form for $PM_{2.5}$ Interagency Consultation

RTIP ID# *(required)* 230674

TIP ID# *(required)* SCL090030

Air Quality Conformity Task Force Consideration Date
October 27, 2011

Project Description *(clearly describe project)*
The California Department of Transportation (Caltrans), in cooperation with the Santa Clara Valley Transportation Authority (VTA), proposes to convert the existing High-Occupancy Vehicle (HOV) lanes on State Route (SR) 85 to High-Occupancy Toll (HOT) lanes (hereafter known as express lanes). The express lanes would allow HOVs to continue to use the lanes without cost and eligible single-occupant vehicles (SOVs) to pay a toll. The express lanes would be implemented on northbound and southbound SR 85 from US 101 in southern San Jose to US 101 in Mountain View in Santa Clara County (Figures 1 and 2). The project would also include the continuation of the express lanes for 3.3 miles on US 101 in southern San Jose and 4.1 miles in Mountain View, for a total of 30.8 miles. Work on the US 101 segments will mainly consist of striping and signing and will not include widening or any changes in system or HOV lane access. The project does not require any right-of-way acquisition.

SR 85 typically has three lanes in each direction: two mixed-flow lanes and one HOV lane. Trucks are prohibited on the majority of the SR 85 corridor (Post Miles [PM] 0.00 to 18.45; corridor ends at PM 24.1). The project proposes to convert the existing HOV lanes on northbound and southbound SR 85 into express lane facilities that would have one lane between US 101 in southern San Jose and SR 87, two lanes between SR 87 and I-280, and one lane between I-280 and US 101 in Mountain View. In the section between SR 87 and I-280, where the median width is approximately 46 feet, pavement widening would be conducted in the median to accommodate the second express lane. The project would also install new signage, striping, vehicle detection sensor units, and dynamic message signs.

Type of Project: Change to existing State highway

County	**Narrative Location/Route & Postmiles**
Santa Clara	On SR 85 from PM 0.0 to 24.1. The project limits also include PM 25.3 to 28.6 and PM 47.9 to 52.0 on US 101, adjacent to the northern and southern termini of SR 85, to allow for striping and signage modifications. **Caltrans Projects – EA#** 04-4A7900

Lead Agency: Santa Clara Valley Transportation Authority (VTA)

Contact Person	**Phone#**	**Fax#**	**Email**
Roy Molseed	408 321-5784	408 321-5787	Roy.molseed @vta.org

Federal Action for which Project-Level PM Conformity is Needed *(check appropriate box)*

Categorical Exclusion (NEPA)	EA or Draft EIS	X FONSI or Final EIS	PS&E or Construction	Other

Scheduled Date of Federal Action: December 2012

NEPA Delegation – Project Type *(check appropriate box)* Not applicable

Exempt	Section 6004 – Categorical Exemption	Section 6005 – Non-Categorical Exemption

Current Programming Dates *(as appropriate)*

	PE/Environmental	ENG	ROW	CON
Start	October 2010	January 2013	January 2014	June 2014
End	December 2012	December 2013	March 2014	July 2015

$PM_{2.5}$ Project Assessment Form for Interagency Consultation

Project Purpose and Need (Summary): *(please be brief)*

Purpose

The purpose of the project is to:

- Utilize excess capacity in the SR 85 HOV lanes,
- Manage traffic congestion in the most congested HOV segments of the freeway between SR 87 and I-280, and
- Maintain consistency with provisions defined in Assembly Bill 2032 (2004) and Assembly Bill 574 (2007) to implement express lanes in the SR 85 corridor.

Need

The proposed project is needed for the following reasons:

- During the peak hours (7 a.m. to 8 a.m. in the northbound direction and 5 p.m. to 6 p.m. in the southbound direction), SR 85 cannot accommodate all of the traffic demand in the corridor. Bottlenecks result in long backups in the mixed-flow lanes. Throughout the SR 85 corridor, the northbound mixed-flow lanes operate below the posted speed limit during the a.m. peak period, and the southbound mixed-flow lanes function below the posted speed limit during the p.m. peak period.
- In segments where the existing single HOV lane segments north of I-280 and south of SR 87 have additional capacity, the project would maximize the efficiency of the system by allowing SOVs into the HOV/express lane, therefore alleviating some of the congestion in the mixed-flow lanes in those segments.
- Between SR 87 and I-280, however, drivers in the HOV lane experience significant delays due to lack of HOV capacity. The existing wide median provides the opportunity to construct a second HOV/express lane and provide some congestion relief for both the HOV and mixed-flow lanes by allowing the SOVs in the mixed-flow lanes to pay a toll for use of the express lanes facility.
- Traffic conditions are expected to worsen in the future with continued development in the region and along the SR 85 corridor. Over the next 25 years, Santa Clara County is predicted to grow by over 500,000 residents and 400,000 jobs, increases of 27.5 and 45.6 percent, respectively. Over the same period, the County expects to increase the capacity of the roadway system by 5 to 6 percent. Traffic on SR 85 is also projected to increase in the form of both regional trips using SR 85 to bypass US 101 and local trips to and from locations on the SR 85 corridor.

Surrounding Land Use/Traffic Generators *(especially effect on diesel traffic)*

SR 85 passes through Cupertino, Saratoga, Campbell, Los Gatos, San Jose's Cambrian Park, and the neighborhoods of Almaden Valley, Blossom Valley, and Santa Teresa (Figure 2). Development adjacent to the freeway includes commercial, industrial, research and development, institutional, residential, and open spaces. VTA's Light Rail runs within the SR 85 median south of SR 87.

The project would not change land uses in any way that would result in additional diesel truck traffic to or from the study area. Trucks over 9,000 pounds are prohibited on SR 85 between US 101 in southern San Jose and I-280 (PM 0.00 to 18.45; corridor ends at PM 24.1), except for maintenance and emergency vehicles, buses, and recreational vehicles. Therefore, truck volumes on SR 85 as a whole are low (3.05% or less of total traffic), and would remain so with or without the project.

Project Assessment Form for $PM_{2.5}$ Interagency Consultation

Brief summary of assumptions and methodology used for conducting analysis *(please keep this concise – specifics may include date of when traffic counts were conducted, studies where truck percentages were derived)*

Traffic volumes for the peak period were developed based on Caltrans 24-hour traffic volumes for the freeway mainline and at the on/off-ramps for Year 2007. URS conducted additional traffic counts in May 2010 to determine the throughput of existing bottlenecks during the peak hours. Annual average daily traffic (AADT) presented below represent both directions of SR 85.

As trucks over 9,000 pounds are prohibited on SR 85 between US 101 in southern San Jose and I-280 (PM 0.00 to 18.45; corridor ends at PM 24.1), truck percentages on SR 85 range from 0.25% to 3.05%, depending on location (http://traffic-counts.dot.ca.gov/2009all/docs/2009truckpublication.pdf). To be conservative, this analysis assumes a truck percentage of 3.50% for the SR 85 corridor.

The SR 85 corridor can be broken into four major segments between successive system interchanges as follows: 1) between US 101 at the southern project limit and SR 87, 2) between SR 87 and I-880/SR-17, 3) between I-880/SR-17 and I-280, and 4) between I-280 and US 101 at the northern project limit. Because truck traffic percentage is not expected to change significantly within each of these four major segments, the four sub-segments of SR 85 evaluated below were chosen to represent each of the major segments listed above.

Opening Year: If facility is a highway or street, Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Year 2015

Segment		No Build AADT		Build AADT	
From	To	Total	Trucks	Total	Trucks
Blossom Hill	SR 87	148,900	5,212	153,400	5,369
Union	Bascom	139,100	4,869	149,300	5,226
Saratoga	Sunnyvale/DeAnza	113,400	3,969	122,200	4,277
Fremont	El Camino	125,100	4,379	125,800	4,403

Source: Total AADT from Wilbur Smith Associates 2011.
Note: Truck percentage assumed at 3.50%.

RTP Horizon Year / Design Year: If facility is a highway or street, Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Year 2035

Segment		No Build AADT		Build AADT	
From	To	Total	Trucks	Total	Trucks
Blossom Hill	SR 87	184,900	6,472	187,300	6,556
Union	Bascom	164,700	5,765	175,800	6,153
Saratoga	Sunnyvale/DeAnza	138,900	4,862	150,800	5,278
Fremont	El Camino	146,200	5,117	143,600	5,026

Source: Total AADT from Wilbur Smith Associates 2011.
Note: Truck percentage assumed at 3.50%.

$PM_{2.5}$ Project Assessment Form for Interagency Consultation

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT
Not applicable

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT
Not applicable

Opening Year: If facility is a bus, rail or intermodal facility/terminal/transfer point, # of bus arrivals for Build and No Build, % and # of bus arrivals will be diesel buses
Not applicable

RTP Horizon Year / Design Year: If facility is a bus, rail or intermodal facility/terminal/transfer point, # of bus arrivals for Build and No Build, % and # of bus arrivals will be diesel buses
Not applicable

Describe potential traffic redistribution effects of congestion relief *(impact on other facilities)*

The project would not have adverse traffic redistribution effects. As a result of the existing truck restrictions that would continue to apply with the project, no significant changes in truck traffic would occur at local interchanges. Furthermore, the data for the study segments indicates that no significant changes in truck traffic would occur from the major system interchanges along the corridor (between US 101 at the southern project limit and SR 87, between SR 87 and I-880/SR-17, between I-880/SR-17 and I-280, and between I-280 and US 101 at the northern project limit). Even in the SR 85 segment where no truck restrictions are in place, truck AADTs and percentages would remain well below the 10,000 AADT/8% threshold established by the United States Environmental Protection Agency for projects of air quality concern.[1]

Buses and transit providers will be able to use the express lanes for free. The project will not affect VTA's Light Rail that currently runs within the SR 85 median south of SR 87.

[1] Transportation Conformity Guidance for Qualitative Hot-spot Analyses in $PM_{2.5}$ and PM_{10} Nonattainment and Maintenance Areas, Appendix A, United States Environmental Protection Agency and Federal Highway Administration, EPA420-B-06-902, March 2006.

Project Assessment Form for $PM_{2.5}$ Interagency Consultation

Comments/Explanation/Details *(please be brief)*

The project does not qualify as a POAQC for the following reasons:

1. It is not a new or expanded highway project that would have a significant number of or increase in the number of diesel vehicles (40 CFR Section 93.123(b)(1)(i)).

- The project would not add capacity for diesel vehicles. Trucks over 9,000 pounds are prohibited on most of the SR 85 corridor, except for maintenance and emergency vehicles, buses, and recreational vehicles.
- Caltrans truck count data for 2009 indicate that truck percentages on SR 85 range from 0.25% to 3.05%, well below the significance threshold.
- Projected 2015 and 2035 annual average daily truck traffic data are below the United States Environmental Protection Agency significance threshold even for the highest-volume freeway segment.

2. The project does not affect any intersections (40 CFR Section 93.123(b)(1)(ii)).

3. It is not a new bus or rail terminal or transfer point (40 CFR Section 93.123(b)(1)(iii)).

4. It is not an expansion of an existing bus or rail terminal or transfer point (40 CFR Section 93.123(b)(1) (iv)).

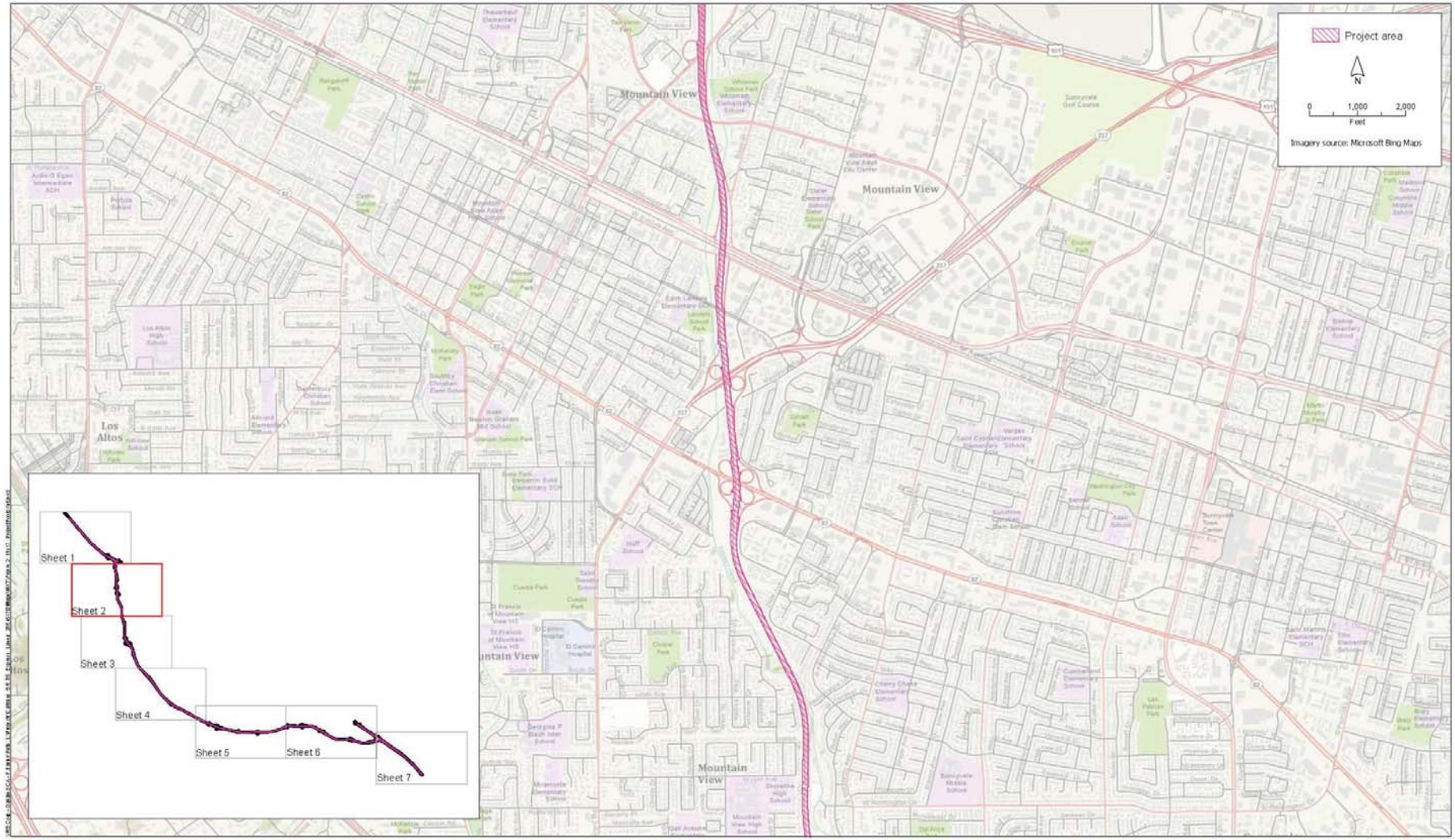
5. There is no state implementation plan for PM2.5, and the project area is therefore not identified in an implementation plan as an area of potential violation (40 CFR Section 93.123(b)(1)(v)).

Therefore, the proposed project meets the Clean Air Act requirements and 40 CFR 93.116 without any explicit hotspot analysis. The proposed project would not create a new, or worsen an existing, PM2.5 violation.

Figure 1. SR 85 Express Lanes Project Vicinity

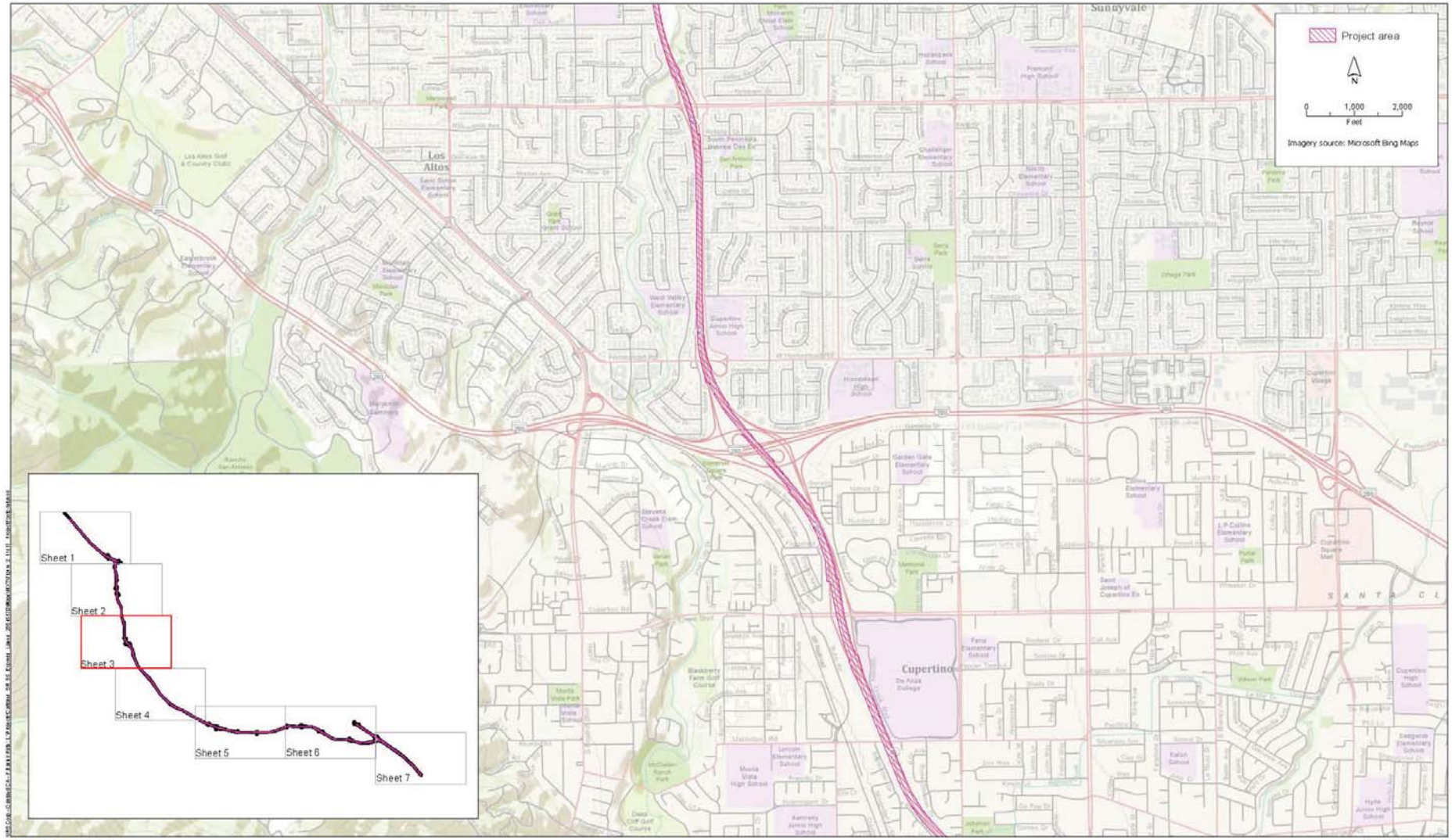
URS Caltrans
State Route 85 Express Lanes

Figure 2, Sheet 1
Project area



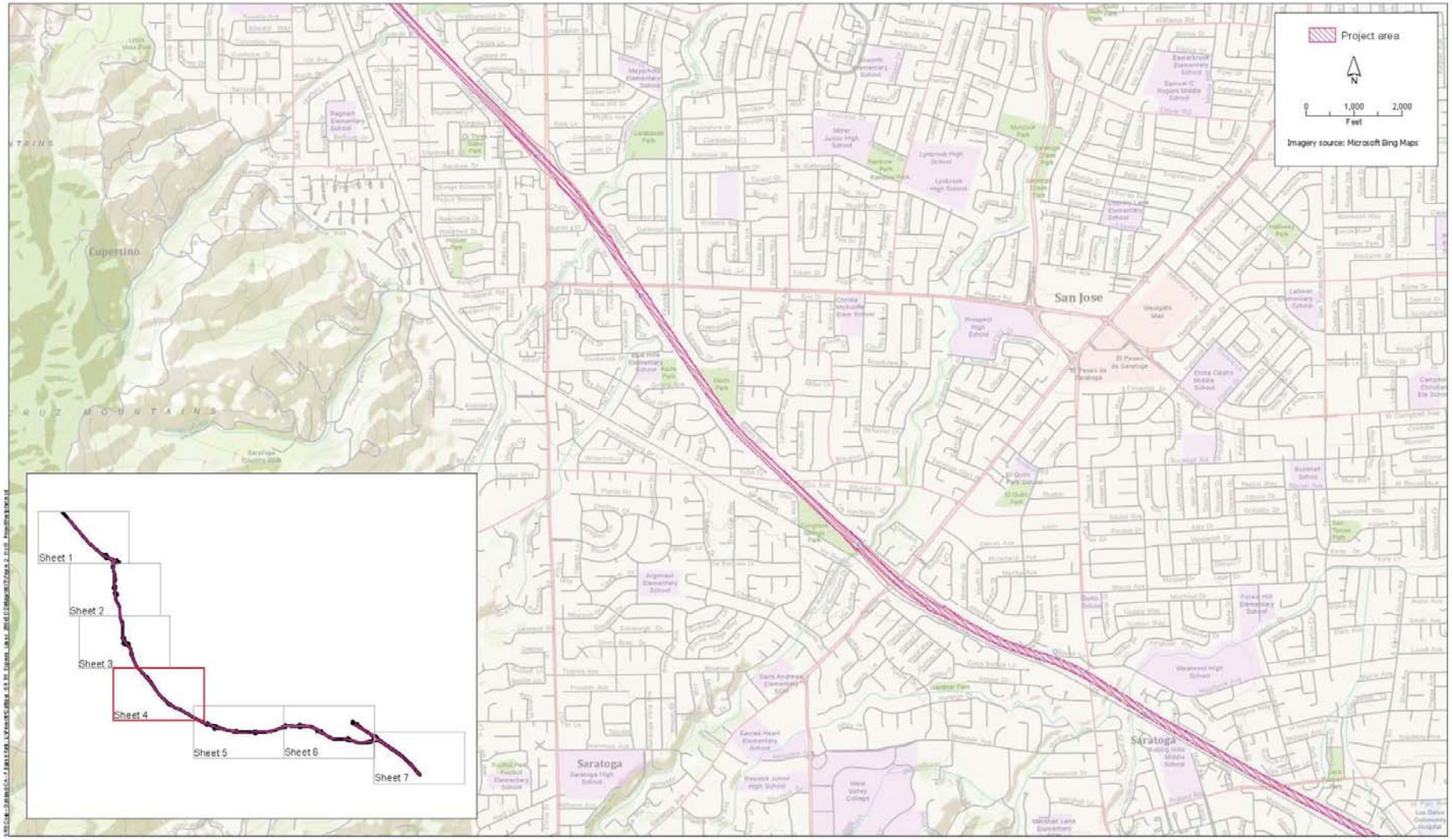
URS Caltrans
State Route 85 Express Lanes

Figure 2, Sheet 2
Project area



URS Caltrans
State Route 85 Express Lanes

Figure 2, Sheet 3
Project area

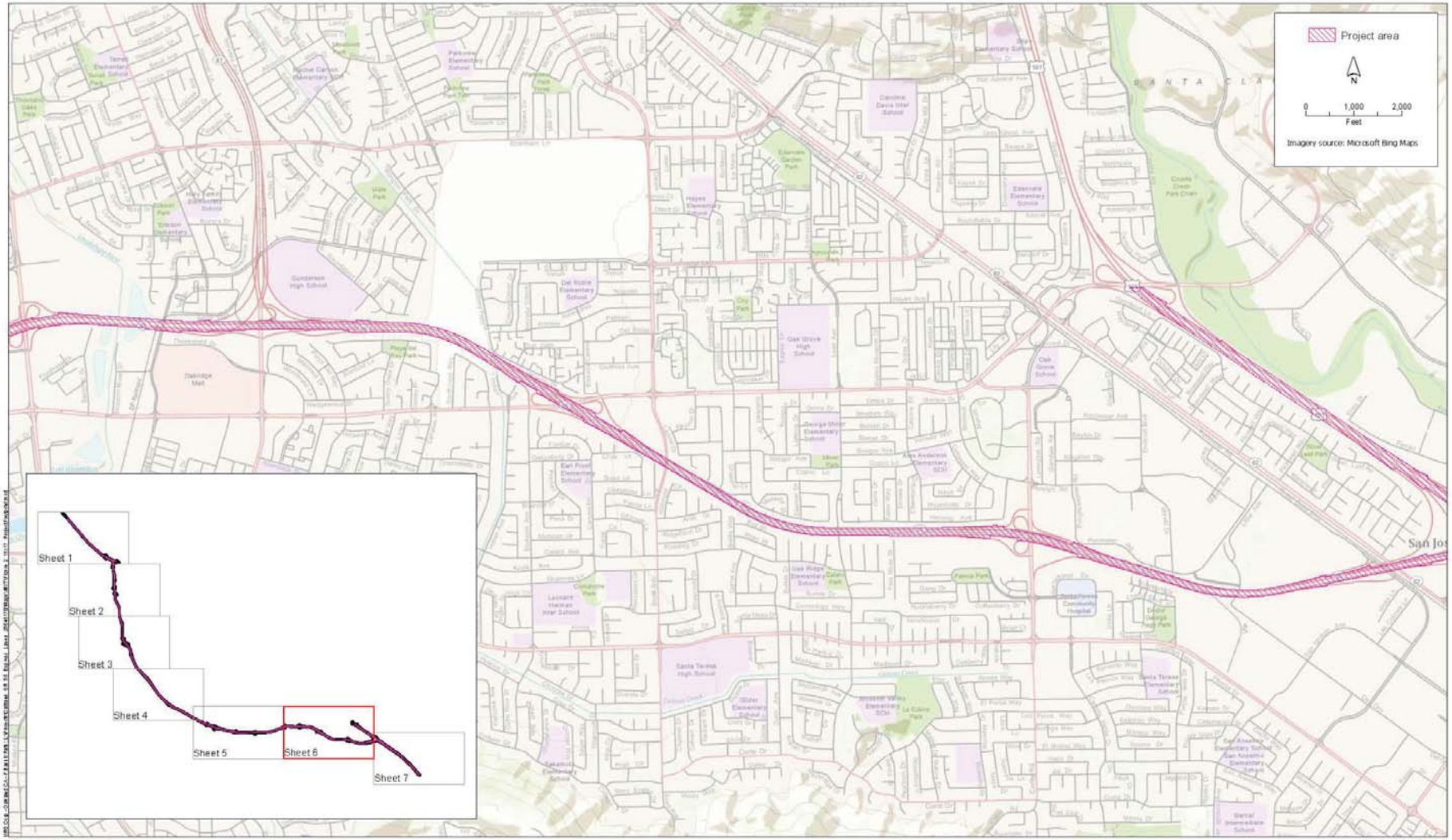


URS Caltrans
State Route 85 Express Lanes

Figure 2, Sheet 4
Project area

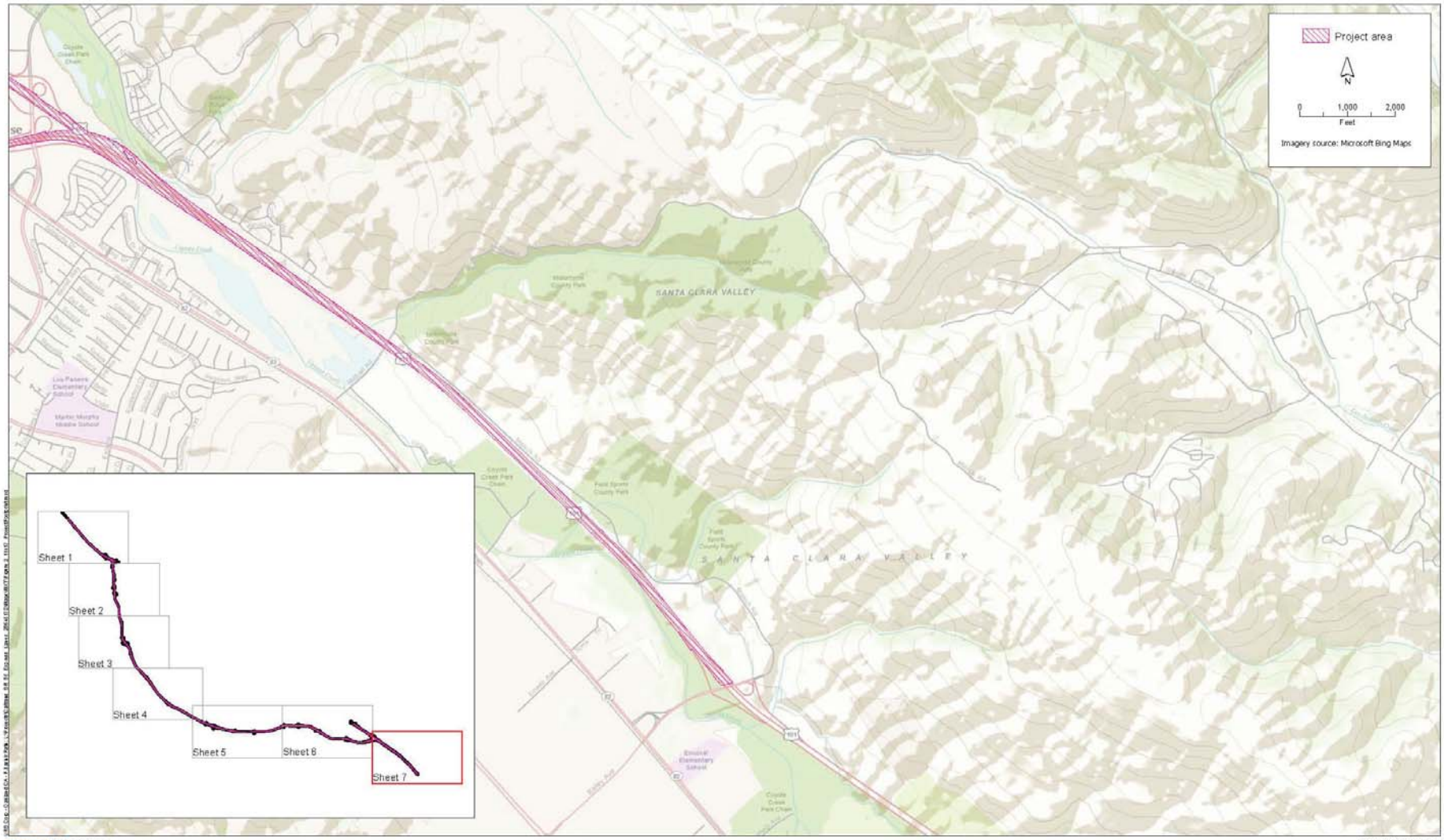
URS Caltrans
State Route 85 Express Lanes

Figure 2, Sheet 5
Project area



URS Caltrans
State Route 85 Express Lanes

Figure 2, Sheet 6
Project area



URS Caltrans
State Route 85 Express Lanes

Figure 2, Sheet 7
Project area

Air Quality Conformity Task Force
Summary Meeting Notes
October 27, 2011

Attendance:
Mike Brady – Caltrans
Ginger Vagenas – EPA
Ted Matley – FTA
Stew Sonnenberg– FHWA
Roy Molseed – VTA
Lynn McIntyre – URS
Stefanie Hom - MTC
Ashley Nguyen – MTC
Sri Srinivasan - MTC

1. **Welcome and Self Introductions**: Stefanie Hom (MTC) called the meeting to order at 9:30 am. See attendance roster above.

2. **$PM_{2.5}$ Interagency Consultations:** To begin the interagency consultations for $PM_{2.5}$ project level conformity, Stefanie Hom (MTC) asked the project sponsor to give a brief overview of the project prior to opening up the project for questions by the Task Force.

POAQC Status Determinations

Santa Clara Valley Transportation Authority (VTA): SR-85 Express Lanes Project

Roy Molseed (VTA) gave an overview of the project. The project would convert existing High-Occupancy Vehicle (HOV) lanes on State Route (SR) 85 to High-Occupancy Toll (HOT) lanes. The express lanes would be implemented on northbound and southbound SR-85 from US-101 in southern San Jose to US-101 in Mountain View in Santa Clara County. The project would also include the continuation of the express lanes for 3.3 miles on US-101 in southern San Jose and 4.1 miles in Mountain View, for a total of 30.8 miles. Work includes the installation of new signage, striping, vehicle detection sensor units, and dynamic message signs.

Roy indicated that the purpose of the project would be to maintain consistency with legislation to implement express lanes in the SR-85 corridor, utilize existing HOV capacity, and manage traffic congestions. The Draft EIR is expected to be released in the summer of 2012 and completed by the end of 2012.

Lynn McIntyre (URS), working with VTA on the project, indicated that on SR-85, between US-101 at the southern terminus of SR-85 and I-280 in the north, trucks over 9,000 pounds are and will continue to be prohibited. The only trucks allowed on this span are maintenance vehicles, emergency vehicles, buses, and RVs. Since the truck restriction went into effect, truck percentages have been low, ranging from 0.25 percent to 3.05 percent. The express lanes project would not provide additional capacity for trucks. Even when the project is projected out to the years 2015 and 2035, the overall number of trucks remains low on the corridor.

Lynn further explained that the 9 percent increase in truck traffic between the build scenario in 2035 and the no-build scenario is due to the fact that overall AADT is increasing, since single occupancy vehicles would now be allowed to use the express lanes. The increase in trucks is related to overall increase in vehicles as result of additional express lanes.

Lynn added that they conducted a sensitivity analysis to calculate how high truck percentages would need to be on SR-85 before they go beyond the 10,000 AADT truck threshold. In 2015,

the percentage would need to be at 7.3 percent, which would more than double the truck percentage. In 2035, truck percentages would need to be at 6.15 percent, which would more than double the existing highest truck percentage in the corridor. This project would not be able to accommodate this increase in truck traffic. Therefore, they believe that the SR-85 Express Lanes Project is not a POAQC.

Dick Fahey (Caltrans), who offered comments through email, was concerned about the increase in truck traffic, which would be as much as 9 percent between the no-build and build scenarios in 2035.

Mike Brady (Caltrans) indicated that the increase in truck traffic may have to do with how traffic numbers were derived. If the truck numbers were derived using a flat percentage applied to AADT, then it would show an increase in trucks because there would be more traffic in the HOV lane. He was not sure if traditional traffic studies are able to show if truck traffic actually increases like that.

Lynn responded that they applied a constant of 3.5 percent to derive truck AADT. They also looked at overall truck AADT in the corridor since it opened; in the years since the truck restriction went into place, the percentage of trucks has never been above 3.05 percent, which is why the 3.5 percent assumption is conservative.

Mike agreed that if VTA is applying a flat percentage to calculate AADT, the AADT assumptions are probably conservative for a HOV project because they are adding a lane that trucks are not supposed to be in.

Ginger Vagenas (EPA) indicated that the truck restriction is only for three-quarters length of the project. There is likely to be a difference in numbers outside of that area where the restrictions do not apply.

Lynn responded that they looked at that issue and do not believe there would be an increase in truck traffic since historical data has shown that truck traffic has remained low in the areas where there are no restrictions. It is not worth it for many trucks to travel on that segment of SR-85 for a short distance when they cannot exit to a major destination.

Mike indicated that it would have been helpful to know the boundaries of truck restriction. Lynn indicated that the truck restrictions do not apply on SR-85 between Fremont and El Camino.

Stew Sonnenberg (FHWA) indicated that even from the Fremont to El Camino section, truck traffic would be about 3.5 percent.

Final Determination: FHWA, Caltrans, EPA, FTA, and MTC concurred that this project is not a POAQC.

$PM_{2.5}$ Conformity Exempt List Review

Stefanie (MTC) indicated that there were 5 projects on the exempt list. Ashley (MTC) added that two of the projects were HSIP projects, and one bicycle/pedestrian projects. Stefanie asked for questions on any of these projects.

Mike (Caltrans) indicated that if the projects listed on the exempt list were not HSIP projects, then the first four projects would not be exempt.

Final Determination: FHWA, Caltrans, EPA, FTA, and MTC concurred that the projects on the exempt list are exempt from project level PM 2.5 conformity.

3. Consent Calendar

Stefanie (MTC) asked for questions on any items on the exempt calendar.

There were no questions on any items on the consent calendar.

Final Determination: All items on the consent calendar were approved by FHWA, Caltrans, EPA, FTA and MTC.

4. Other Business/Adjourn

Stefanie (MTC) reminded everyone to fill out the online Doodle poll sent out by Ashley (MTC) and Brenda (MTC) so they could assess the group's availability and schedule next month's meeting.

Ted Matley (FTA) suggested putting the issue of thresholds for minor transit projects on the next agenda.

Stew (FHWA) indicated that he sent out letter about the next certification review, which will occur January 10 - 12, 2012. Ashley (MTC) indicated they are starting the review process internally.

Ashley indicated that MTC is hoping to consultant with federal agencies on demographic assumptions for the RTP in January. There are a lot of changes on how demographic forecasts are prepared and they want to run the methodology and approach by the group before starting the conformity analysis.

Ginger (EPA) requested that she would like to have any materials prepared on establishing thresholds on minor transit fleet expansions as far in advance as possible. OTAC is interested in providing comments, and EPA would like as much lead time as possible with them.

Ted and Ashley indicated that they would work together on the minor transit fleet expansions threshold materials and would forward them to Ginger.

Stefanie adjourned the meeting at approximately 10:00 am.

J:\SECTION\PLANNING\AIRQUAL\TSKFORCE\2011\11-30-11\Drafts\3a_AQCTF Meeting Notes Summary - 102711.docx

FMS Log in

Version 2.7.1

Project Manager Help

VIEW PROJECT: **SR 85 Express Lanes**

Project Detail | Funding | Contacts | Location | Lineage | Comments | Screening Criteria | Project Documents | Air Quality | << Back to project search res

TIP ID	SCL090030	**Status**	ACTIVE	**Project name**	SR 85 Express Lanes
FMS ID	4197.00	**Version**	5	**Sponsor**	VTA
County	Santa Clara	**Last updated**	07/05/2010	**Implementing Agency**	VTA

Regional Conformity

Air Quality Code	Air Quality Description
Non-Exempt	NON-EXEMPT

Air Basin	Air District
San Francisco Bay Area	Bay Area AQMD

TCM	TCM Number	VOC	NOX	CO	PM10	PM2.5	CO2
		0.0	0.0	0.0	0.0	0.0	0.0

Project Conformity

Overview: The San Francisco Bay Area has been designated as non-attainment for the 24-hour PM2.5 standard. Beginning December 14, 2010, certain projects are required to complete a PM2.5 hot-spot analysis as part of the project-level conformity determination process. Project sponsors must engage in interagency consultation on the PM2.5 hot-spot analysis through MTC's Air Quality Conformity Task Force. The Conformity Task Force will (1) determine if a project meets the definition of a project of air quality concern and if the project requires undergoing a project-level PM2.5 hot-spot analysis, and (2) review the methods, assumptions and analysis of the PM2.5 hot-spot analysis. The EPA and either FHWA or FTA must concur with the recommendations from the Conformity Task Force. Upon completion of the interagency consultation, project sponsors must seek approval from FHWA or FTA on the PM2.5 hot-spot analysis.

Project Conformity Analysis Summary

Milestone	Status	Details
Step 1 - Project Identified Exempt From PM2.5 Project Level Conformity	No	Step 1 - Project Identification completed, proceed with requirements for the next step for Interagency Consultation. Project is not exempt from PM 2.5 project level conformity and therefore requires interagency consultation.
Step 2 - Project Requires Interagency Consultation	Yes	Pending requirements for Step 2 - Interagency Consultatation. Project Assessment Form: SR 85 Express Lanes Project PM2.5 Form.pdf
Task Force Determination of POAQC	Not POAQC	Date of Consultation: 10/27/2011 Date of Action: 10/27/2011
Step 3 - Project Requires PM 2.5 Hot Spot Anaylsis Consultation	No	Hot Spot analysis is not required.

URS

Memorandum

Date: February 14, 2013

To: Brenda Dix, Metropolitan Transportation Commission

From: Roy Molseed, Senior Environmental Planner, VTA, and Lynn McIntyre, Project Manager/Environmental, URS

Subject: ***Request for Task Force Concurrence, State Route 85 Express Lanes Project, Santa Clara County, CA (SCL090030, FMS 4197.00)***

In October 2011, Santa Clara Valley Transportation Authority (VTA) consulted with the Air Quality Conformity Task Force on the SR 85 Express Lanes Project (TIP # SCL090030, FMS ID # 4197.00). The project was determined not to be a Project of Air Quality Concern (POAQC; see Attachment A). Public consultation on the Task Force determination will take place as part of the National Environmental Policy Act (NEPA) document circulation this spring.

Follow-on consultation with the Task Force is requested as a result of a recent project change. An auxiliary lane is proposed to be added in a 1.2-mile segment of northbound SR 85 between the existing South De Anza Boulevard northbound on-ramp and the Stevens Creek Boulevard northbound off-ramp in Cupertino. The purpose of the auxiliary lane is to improve traffic operations during peak periods in this segment. The existing pavement would be widened by up to 14 feet to the outside (northeast). No additional right-of-way would be required.

This project change will be included in the 2013 TIP which the Task Force will receive for comment at the March 2013 meeting.

Project-Level Conformity

Attachment A contains the Project Assessment Form for $PM_{2.5}$ Interagency Consultation submitted for the proposed project in October 2011. As shown in Attachment A, the project would not appreciably increase capacity for diesel vehicles. Trucks over 9,000 pounds are prohibited on SR 85 between US 101 in southern San Jose and I-280 (PM 0.00 to 18.45; corridor ends at PM 24.1), except for maintenance and emergency vehicles, buses, and recreational vehicles. Caltrans truck count data for 2009 indicate that truck percentages on SR 85 range from 0.25 percent to 3.05 percent. These percentages are consistent with Caltrans truck count data for 2011. The majority of trucks on SR 85 are two axle.

For both the opening year (2015) and construction year (2035), the Build Alternative had an average increase of approximately 200 trucks compared with No Build for the representative segments evaluated in Attachment A. Although the overall numbers were low, it was pointed out at the October 27, 2011, Task Force meeting that the change in truck traffic would be as much as 9 percent between the No Build and Build scenarios in 2035. The percentage increase is a result of how the truck AADT was calculated, using a conservative assumption of 3.50 percent trucks. The same percentage was applied to all freeway traffic, including the single HOV lane for No Build and the single and double express lanes for Build. As trucks cannot use HOV or express lanes, the potential truck increases are likely overestimated. In addition, overall truck AADT in the SR 85 corridor since the truck restriction went into place has never been above 3.05 percent.

As noted previously, the project proposes to add a 1.2-mile auxiliary lane in the northbound direction of SR 85 between South De Anza Boulevard and Stevens Creek Boulevard in Cupertino. Trucks are prohibited in this part of SR 85, and 2011 Caltrans truck count data show that trucks account for only 0.57 percent of total traffic at the Stevens Creek Boulevard interchange (truck AADT 701 at 085 04 SCL R17.699).

The proposed auxiliary lane would not appreciably change freeway capacity for diesel trucks or other vehicles because all traffic using the lane must either move into the adjacent lanes or exit at Stevens Creek Boulevard. Moreover, the auxiliary lane was added to the project to further improve traffic conditions. Therefore, this project change would not create a new, or worsen an existing, $PM_{2.5}$ violation. The proposed project meets the Clean Air Act requirements and 40 CFR 93.116 without any explicit hot spot analysis.

VTA is seeking the Task Force's confirmation that the addition of the proposed auxiliary lane does not change the previous determination that the project is not a POAQC.

Air Quality Conformity Task Force
Summary Meeting Notes
February 28, 2013

Participants:
Dick Fahey – Caltrans
Stew Sonnenberg - FHWA
Mike Brady – Caltrans
Ginger Vagenas – EPA
Jeff Buss – EPA
Lynn McIntyre – URS
Jennifer Schulte – URS
Gary Sidhu – ACTC
Glenn Kinoshita – Caltrans
Hossein Khodabakhsh - Caltrans
Matt Bomberg – Alameda CTC
Carolyn Clevenger – MTC
Brenda Dix – MTC
Stefanie Hom – MTC
Harold Brazil – MTC
Sri Srinivasan – MTC
Adam Crenshaw – MTC

1. **Welcome and Self Introductions**: Brenda Dix (MTC) called the meeting to order at 9:30 am. See attendance roster above. Ted Matley (FTA) was not in attendance and would provide comments through email.

2. **$PM_{2.5}$ Interagency Consultations**
   a. **$PM_{2.5}$ Conformity Exempt List Review**

   i. *City of San Mateo: SR-92/El Camino Real (SR-82) Ramp Modifications*

   Hossein Khodabakhsh (Caltrans) provided an overview of the project. The project proposes to modify a four quadrant cloverleaf into a two quadrant partial cloverleaf to improve traffic operations of the 92/82 interchange and increase the performance of the on and off ramps which are currently creating secondary operational deficiencies on the SR-92 mainline. The SM 92/82 interchange serves as a major access point from Route 92 to commercial and residential areas on the El Camino Real (Route 82) in downtown San Mateo.

   Glenn Kinoshita (Caltrans) added that the truck percentages are predicted to remain constant. The project is an operational improvement only and does not increase capacity on the mainline. It is intended to reduce congestion on El Camino Real. There will not be a significant number of diesel trucks that will use the intersections because trucks have other ways to get to El Camino Real.

   Brenda Dix (MTC) indicated that there would be no change in AADT between the build and no-build scenarios. Truck volume numbers look low.

   Mike Brady (MTC) indicated that this project does not change in the number of lanes going on and off the freeway, it just includes ramp channelization. The project is not a problem to start with because it is not changing the capacity and how it will affect the freeway, it is just operational.

   Ginger Vagenas (EPA) added that this project is not a project of air quality concern.

Dick Fahey (Caltrans) indicated that this project is not a project of air quality concern.

Stew Sonnenberg (FHWA) indicated that this project is not a project of air quality concern.

On February, 28, 2013, Ted Matley (FTA), via email, indicated that this project is not a project of air quality concern.

The Task Force had a concurrent discussion about the methodology for the truck numbers used in the analysis.

On February 20, 2013, Ginger Vagenas (EPA) emailed the Task Force the following:

> "I just looked at the El Camino interchange project and noticed that the sponsor relies on the numbers of 3-axle vehicles as the basis for total diesel numbers in the project forms. While we understand that including all 2-axle trucks would inflate the numbers for diesel truck, ignoring them altogether biases the numbers in the other direction. There needs to be a way to somehow ensure the 2-axle diesels are included – maybe a conversion factor?? I am not sure if this would have to be done on a county level basis, or if there is a way of doing it for the entire Bay Area (as well as other areas throughout CA) but we do need a way to include all the diesel trucks in the analysis. "

On February 20, 2013, Mike Brady (Caltrans) emailed the Task Force the following:

> "Based on what EPA has said in the past, we clearly can't rely on 3-axle diesel trucks. 2-axle must be included. One possibility might be to use the diesel/gas proportion of LHD-MHD trucks from EMFAC and apply that to the 2-axle numbers? I know this has been discussed before but don't remember the results right now."

On February 21, 2013, Brenda Dix (MTC) emailed the Task Force following:

> "The last time this issue was raised we ended up waiving it aside since the overall AADT was very low at the project site. For the project in question we will work with the project sponsor to develop a ratio for them to apply to the counts that they have based on the EMFAC fleet mix for San Mateo county."

On February 27, 2013, Brenda emailed the Task Force revised truck numbers and indicated the following:

> "MTC's air quality modeler, Harold Brazil, was able to extract details on the truck fleet mix in San Mateo county from EMFAC in order to apply ratios to the 3-axle counts to extrapolate out to the total number of both gas and diesel trucks in the project corridor. The revised numbers are included in the attached project assessment form. Note that the rows in the new truck tables match the order of the rows in the original tables even though they are not fully labeled. This revised information will be posted to the online agenda as well."

On February 27, 2013, Ginger emailed the Task Force the following:

> "Assuming all the task force members are comfortable with this approach, I think the next steps would be for MTC to document its process so we could take it to OTAQ for review. Because this issue has come up in the past and will no doubt come up again, it seems like a good idea to have an agreed-upon approach to determining diesel truck traffic that could be shared with project sponsors."

At the meeting, Harold Brazil (MTC) indicated that MTC addressed the omission of diesel trucks less-than 3-axles by looking at vehicle fleet population numbers in EMFAC 2011 for the County of San Mateo in the years 2018 and 2035 (the last year in EMFAC2011). They developed ratios (the year 2035 EMFAC2011 numbers were used for 2038 the horizon year of the project) to apply to the Caltrans truck counts to extrapolate them to obtain the complete number of diesel trucks in the project area. A set of assumptions regarding the conversion between truck weight classes in EMFAC and the Caltrans axle counts had to be developed.

Brenda indicated that MTC will develop a complete write-up on the process to vet with the Task Force and to allow other project sponsors to use the methodology when required for their project. MTC will post it on their Air Quality Conformity Task Force page when it is available.

Mike suggested that MTC should circulate the reference document beyond the Task Force. This discussion has happened before in other regions since EMFAC defines vehicles by weight and everywhere else defines by axles. There does need to be a way to adjust between those two classifications, but there is not a universal methodology yet.

Ginger indicated that she supports creating a reference document to allow project sponsors to calculate truck counts that include less-than 3-axle trucks. This issue is something that applies more widely than just the Bay Area. She would like to involve OTAQ in the internal review of the document before it is posted.

Brenda indicated that she will provide the reference document for internal review, and then put it on the March Air Quality Conformity Task Force meeting agenda for discussion.

Final Determination: FHWA, Caltrans, EPA, FTA, and MTC concurred that the project is exempt from PM2.5 project level analysis. MTC will provide a document on the methodology for including diesel trucks that are less than 3-axels in truck counts for the Task Force to review, and then make it available on the MTC Air Quality Conformity Task Force webpage for other project sponsors to use.

ii. Alameda County Transportation Commission (ACTC): I-580 HOT Corridor Project

Gary Sidhu (ACTC) provided an overview of the project. Caltrans and the Alameda County Transportation Commission (ACTC) propose to convert the proposed single high occupancy vehicle (HOV) lane on westbound I-580 to a single high occupancy toll (HOT) lane. The HOT lane would be restricted to HOVs (which include automobiles with two or more persons, buses, and motorcycles) and vehicles that pay a toll. The project limits are from west of Greenville Road undercrossing to just east of the San Ramon Road/Foothill Road overcrossing in eastern Alameda County. The total length of the project is approximately 13.7 miles. The proposed HOT lane would not require any roadway expansion, placement of additional pavement, or

acquisition of right-of-way. The HOT lane would use the same striping and alignment as the HOV lane. Tolling equipment and signage would be installed, and trenching along the outside edge of pavement would occur for installation of conduits. Construction of the westbound HOV lane and conversion to a HOT lane will be simultaneous, to allow the facility to open to traffic as a HOT lane. Consultation with the Air Quality Conformity Task Force was complete in February 2012 for the westbound HOV lane project. The project was found to reduce $PM_{2.5}$ emissions in both 2015 and 2035. The HOT lane would improve the overall level of service compared with the HOV lane (No Build condition) and is expected to further reduce $PM_{2.5}$ emissions.

Lynn McIntyre (URS) added that the single HOT lane would not allow for a significant increase in diesel vehicles. The majority of diesel trucks are restricted from using HOV lanes, even for passing. The estimated increase compared with the No Build condition is 4.3 percent in 2015 and 6.9 percent in 2035. This is not considered a significant increase. The project sponsor is looking for Task Force determination quickly so they can start construction. They have already prepared the proposed methodology for a $PM_{2.5}$ hot spot analysis to review if this project is found to be a project of air quality concern.

Mike Brady (Caltrans) asked what the difference is between an HOV and HOT lane.

Lynn responded that any regular vehicle with two or more occupants, electric vehicles (EVs), and busses can use HOV lanes. HOT lanes allow single-occupant vehicles to use the lanes by paying a toll.

Mike asked what the difference in volumes and speeds will be between the HOT and HOV lane.

Lynn indicated that they do not have that data at the moment. But data from other projects suggest that the HOV lane in the no-build scenario may have slightly higher operational function. But with HOV lane only, the mixed flow lanes will operate at a much worse level of service (LOS). With the HOT conversion, the mixed flow lanes improve. In the overall corridor, there would be no increases in speed in the HOT lane compared with the HOV lane.

Carolyn Clevenger (MTC) asked if the no-build scenario includes the HOV lane.

Lynn responded that the no-build scenario does include the HOV lane. It assumes the conversion to the HOT lane would not occur.

Stew Sonnenberg (FHWA) asked if the HOT lane will operate on peak hours.

Gary responded that the HOT lane will operate the same hours as the current HOV lane, which are peak hours.

Stew asked if the peak hours are 5:00 to 10:00 am and 3:00 to 7:00 pm, Monday through Friday.

Gary confirmed that those are the peak hours for the HOV lane.

Dick Fahey (Caltrans) asked if the no-build scenario includes last year's HOV AADT project numbers.

Lynn responded that they are not exactly the same numbers because there has been an updated traffic forecast and analysis. The no-build scenario includes the HOV lane.

Dick asked if the increase in AADT would be from the additional throughput.

Lynn confirmed that it would be. The AADT numbers were based on the data for the peak AM hours, which is the worst-case for that corridor.

Ginger Vagenas (EPA) indicated that she considers this a project of air quality concern because AADT would increase. Some of the increases in the project are significant. The impact may not be that significant, but it is not clear the project assessment form.

Mike indicated that there needs to be a quantitative screening step. He was on the fence about whether the project is a project of air quality concern. The project assessment form indicates that will be an increase of traffic and trucks. The project sponsor could do a more detailed traffic analysis as an interim step between the project assessment form and a hot spot analysis.

Jeff Buss (EPA) questioned if the AADT increase is significant. Most of the increase is for 2015. Some of the impacts could be mitigated. Fleet turnover could be a factor. He is not that concerned about the increase in AADT in the future because of fleet turnover, but if there is congestion in the immediate future, fleet turnover would not make that much of an impact. He was leaning toward considering this project a project of air quality concern.

Lynn indicated that the truck AADT shown on the project assessment form is a percentage of total truck AADT, since the numbers are for the AM peak only.

Mike indicated that the project is probably not a project of air quality concern, but he cannot justify it with just the data on the project assessment form. There is not enough information. He would like to see truck volumes by time of day and speed data in addition to just the truck percentages included in the form.

Lynn indicated that they will try to provide more information on the project.

Harold Brazil (MTC) indicated that speed data would be helpful to include.

Dick indicated that the project sponsor could look at doing 24-hour modeling, not just for the peak hour. There may not be such a large increase in AADT.

Brenda indicated that the project sponsor will pull together additional information about the project and then circulate it to the Task Force via email.

Final Determination: FHWA, Caltrans, EPA, FTA, and MTC concluded there was not enough information to make a determination. The project sponsor will provide more information to the Task Force via email.

b. Consultation on Hot Spot Analysis Methodology

i. Alameda County Transportation Commission (ACTC): I-580 HOT Corridor Project

No discussion required. See above.

c. Confirm Projects are Exempt from PM2.5 Conformity

Stew Sonnenberg (FHWA) asked if CC-110090, Contra Costa Blvd. Improvements, is considered a safety project, even though it includes the construction of a bike lane.

Brenda Dix (MTC) indicated that the project is receiving HSIP funding, so it is considered a safety project.

Dick Fahey (Caltrans) indicated that ALA-110119, AC Transit Spectrum Ridership Growth, sounds like it would increase ridership and questioned the use of the "planning study" exemption code for the project.

Sri Srinivasan (MTC) indicated that MTC did not know which exemption code to use for this project.

Dick indicated that he did not have any suggestions on alternate exemption codes that could be used.

Mike Brady (Caltrans) agreed that there was no other appropriate exemption code to use instead.

Brenda indicated that they would leave the exemption code for ALA-110119 as-is.

On February 28, 2013, Ted Matley (FTA), via email, indicated that he did not have any comments on the exempt list.

Final Determination: FHWA, Caltrans, EPA, FTA, and MTC concurred that all projects on the exempt list are exempt from PM2.5 project level analysis.

3. Consent Calendar

a. January 24, 2013 Air Quality Conformity Task Force Meeting Summary

b. SR-85 Express Lanes (SCL090030) Project Change

There were no comments on the consent calendar.

Final Determination: FHWA, Caltrans, EPA, FTA, and MTC concurred that all items on the consent calendar are approved.

4. Other Items

Brenda Dix (MTC) indicated that the use of EMFAC2011 has been approved by EPA.

Mike Brady (Caltrans) indicated that the statewide California Air Quality meeting is scheduled for Wednesday, March 13, 2013 from 10:00 am to 1:00 pm.

Brenda adjourned the meeting at approximately 10:20 am. The next Air Quality Conformity Task Force meeting is scheduled for Thursday, March 28, 2013 at 9:30 am.

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USFWS Species List

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United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825

February 17, 2015

Document Number: 150217022539

Nicole Rucker
AECOM
1333 Broadway Suite 800
Oakland, CA 94612

Subject: Species List for State Route 85 Express Lanes Project

Dear: Ms.

We are sending this official species list in response to your February 17, 2015 request for information about endangered and threatened species. The list covers the California counties and/or U.S. Geological Survey 7½ minute quad or quads you requested.

Our database was developed primarily to assist Federal agencies that are consulting with us. Therefore, our lists include all of the sensitive species that have been found in a certain area *and also ones that may be affected by projects in the area*. For example, a fish may be on the list for a quad if it lives somewhere downstream from that quad. Birds are included even if they only migrate through an area. In other words, we include all of the species we want people to consider when they do something that affects the environment.

Please read Important Information About Your Species List (below). It explains how we made the list and describes your responsibilities under the Endangered Species Act.

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be May 18, 2015.

Please contact us if your project may affect endangered or threatened species or if you have any questions about the attached list or your responsibilities under the Endangered Species Act. A list of Endangered Species Program contacts can be found http://www.fws.gov/sacramento/es/Branch-Contacts/es_branch-contacts.htm.

Endangered Species Division

TAKE PRIDE IN AMERICA

U.S. Fish & Wildlife Service

Sacramento Fish & Wildlife Office

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 150217022539

Current as of: February 17, 2015

Quad Lists

Listed Species

Invertebrates

Euphydryas editha bayensis
- bay checkerspot butterfly (T)
- Critical habitat, bay checkerspot butterfly (X)

Incisalia mossii bayensis
- San Bruno elfin butterfly (E)

Lepidurus packardi
- vernal pool tadpole shrimp (E)

Fish

Acipenser medirostris
- green sturgeon (T) (NMFS)

Eucyclogobius newberryi
- tidewater goby (E)

Hypomesus transpacificus
- delta smelt (T)

Oncorhynchus kisutch
- coho salmon - central CA coast (E) (NMFS)

Oncorhynchus mykiss
- Central California Coastal steelhead (T) (NMFS)
- Central Valley steelhead (T) (NMFS)
- Critical habitat, Central California coastal steelhead (X) (NMFS)

Oncorhynchus tshawytscha
- Central Valley spring-run chinook salmon (T) (NMFS)
- winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Ambystoma californiense
- California tiger salamander, central population (T)
- Critical habitat, CA tiger salamander, central population (X)

Rana draytonii
- California red-legged frog (T)
- Critical habitat, California red-legged frog (X)

Reptiles

Thamnophis sirtalis tetrataenia
- San Francisco garter snake (E)

Birds

Brachyramphus marmoratus
- marbled murrelet (T)

Charadrius alexandrinus nivosus
- western snowy plover (T)

Coccyzus americanus occidentalis
Western yellow-billed cuckoo (T)

Pelecanus occidentalis californicus
California brown pelican (E)

Rallus longirostris obsoletus
California clapper rail (E)

Sternula antillarum (=Sterna, =albifrons) browni
California least tern (E)

Mammals

Reithrodontomys raviventris
salt marsh harvest mouse (E)

Vulpes macrotis mutica
San Joaquin kit fox (E)

Plants

Acanthomintha duttonii
San Mateo thornmint (E)

Castilleja affinis ssp. neglecta
Tiburon paintbrush (E)

Ceanothus ferrisae
Coyote ceanothus (E)

Chorizanthe robusta var. robusta
robust spineflower (E)

Cirsium fontinale var. fontinale
fountain thistle (E)

Dudleya setchellii
Santa Clara Valley dudleya (E)

Hesperolinon congestum
Marin dwarf-flax (=western flax) (T)

Lasthenia conjugens
Contra Costa goldfields (E)

Streptanthus albidus ssp. albidus
Metcalf Canyon jewelflower (E)

Suaeda californica
California sea blite (E)

Trifolium amoenum
showy Indian clover (E)

Quads Containing Listed, Proposed or Candidate Species:

MORGAN HILL (406B)
SANTA TERESA HILLS (407A)
LOS GATOS (407B)
SAN JOSE WEST (427C)
SAN JOSE EAST (427D)
MOUNTAIN VIEW (428A)
PALO ALTO (428B)
CUPERTINO (428D)

County Lists

Alameda County

Listed Species

Invertebrates

Branchinecta conservatio
Conservancy fairy shrimp (E)

Branchinecta longiantenna
Critical habitat, longhorn fairy shrimp (X)
longhorn fairy shrimp (E)

Branchinecta lynchi
Critical habitat, vernal pool fairy shrimp (X)
vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus
valley elderberry longhorn beetle (T)

Euphydryas editha bayensis
bay checkerspot butterfly (T)

Icaricia icarioides missionensis
mission blue butterfly (E)

Incisalia mossii bayensis
San Bruno elfin butterfly (E)

Lepidurus packardi
Critical habitat, vernal pool tadpole shrimp (X)
vernal pool tadpole shrimp (E)

Speyeria callippe callippe
callippe silverspot butterfly (E)

Fish

Acipenser medirostris
green sturgeon (T) (NMFS)

Eucyclogobius newberryi
tidewater goby (E)

Hypomesus transpacificus
Critical habitat, delta smelt (X)
delta smelt (T)

Oncorhynchus kisutch
coho salmon - central CA coast (E) (NMFS)

Oncorhynchus mykiss
Central California Coastal steelhead (T) (NMFS)
Central Valley steelhead (T) (NMFS)
Critical habitat, Central California coastal steelhead (X) (NMFS)
Critical habitat, Central Valley steelhead (X) (NMFS)

Oncorhynchus tshawytscha
Central Valley spring-run chinook salmon (T) (NMFS)

Critical habitat, winter-run chinook salmon (X) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Ambystoma californiense
California tiger salamander, central population (T)
Critical habitat, CA tiger salamander, central population (X)

Rana draytonii
California red-legged frog (T)
Critical habitat, California red-legged frog (X)

Reptiles

Masticophis lateralis euryxanthus
Alameda whipsnake [=striped racer] (T)
Critical habitat, Alameda whipsnake (X)

Thamnophis gigas
giant garter snake (T)

Thamnophis sirtalis tetrataenia
San Francisco garter snake (E)

Birds

Charadrius alexandrinus nivosus
western snowy plover (T)

Coccyzus americanus occidentalis
Western yellow-billed cuckoo (T)

Pelecanus occidentalis californicus
California brown pelican (E)

Rallus longirostris obsoletus
California clapper rail (E)

Sternula antillarum (=Sterna, =albifrons) browni
California least tern (E)

Mammals

Reithrodontomys raviventris
salt marsh harvest mouse (E)

Vulpes macrotis mutica
San Joaquin kit fox (E)

Plants

Amsinckia grandiflora
Critical habitat, large-flowered fiddleneck (X)
large-flowered fiddleneck (E)

Arctostaphylos pallida
pallid manzanita (=Alameda or Oakland Hills manzanita) (T)

Chorizanthe robusta var. robusta
robust spineflower (E)

Clarkia franciscana
Presidio clarkia (E)

Cordylanthus palmatus
palmate-bracted bird's-beak (E)

Holocarpha macradenia
Critical habitat, Santa Cruz tarplant (X)
Santa Cruz tarplant (T)

Lasthenia conjugens
Contra Costa goldfields (E)
Critical habitat, Contra Costa goldfields (X)

Layia carnosa
beach layia (E)

Suaeda californica
California sea blite (E)

Key:

(E) *Endangered* - Listed as being in danger of extinction.
(T) *Threatened* - Listed as likely to become endangered within the foreseeable future.
(P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.
(NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.
Critical Habitat - Area essential to the conservation of a species.
(PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.
(C) *Candidate* - Candidate to become a proposed species.
(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
(X) *Critical Habitat* designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your

quad or if water use in your quad might affect them.

- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online Inventory of Rare and Endangered Plants.

Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our Protocol and Recovery Permits pages.

For plant surveys, we recommend using the Guidelines for Conducting and Reporting Botanical Inventories. The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

> Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.

  During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

  Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our Map Room page.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. More info

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6520.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be May 18, 2015.

Section 106 Completion Memorandum

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State of California
DEPARTMENT OF TRANSPORTATION

Business, Transportation and Housing Agency

Memorandum

Flex your power!
Be energy efficient!

To: Cristin Hallissy
Branch Chief, Environmental Analysis
Office of Environmental Analysis, District 4

Date: August 22, 2013

Attn: Ngoc Bui
Associate Environmental Planner
Office of Environmental Analysis, District 4

File: 04-SCL-85 PM 0.0 - 24.1
04-SCL-101 PM 23.1 – 28.6
04-SCL-101 PM 47.9 - 52.0

From: Kathryn Rose KR
Branch Chief, Archaeology
Office of Cultural Resources Studies, District 4

EA: 4A7900
Project ID: 0400001163

Project: 85 Express Lanes Project

Subject: Section 106 Completion Memorandum for the 04-SCL - 85 PM 0.0 - 24.1, 04-SCL-101 PM 23.1 – 28.6, and 04-SCL-101 PM 47.9 - 52.0, Express Lanes Project in Santa Clara County, California.

This memorandum provides the Caltrans Office of Environmental Analysis with notification that this undertaking has been carried out in a manner consistent with Caltrans responsibilities under the 2004 *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (hereafter, the PA).

In order to complete Section 106 of the NHPA for this undertaking, a Historic Property Survey Report (HPSR), Archaeological Survey Report (ASR), Extended Phase One Report (XPI) and an Environmentally Sensitive Area Action Plan (ESA) were submitted to the Caltrans Office of Cultural Resources Studies (OCRS). In accordance with Stipulation X.B.2 (a)(ii) and (iii) of the PA, Caltrans determined that a ***Finding of No Adverse Effect with Standard Conditions – ESAs,*** is appropriate for this undertaking. In accordance with stipulation X.B.2 (b), when the forgoing Standard Conditions are imposed, Caltrans concurrently provides the SHPO with documented notification of the finding. Thereupon, the undertaking is not subject to further review under this agreement.

A letter from the Caltrans OCRS notifying the SHPO of the finding and a copy of the HPSR, ASR, XPI and ESA Action Plan were transmitted on June 21, 2013 and received by the SHPO on June 24, 2013.

During the Plans, Specifications and Estimates (PS&E) phase of project development, the VTA and their cultural resource consultant will need to ensure that the appropriate ESA method for protecting each of the sites within the Area of Potential Effects (APE) are clearly described in contract specifications and illustrated on project plans as early as possible during PS&E. The

Caltrans Archaeologist will review each PS&E submittal package (35%, 65%, 95% and 100%) to ensure that this undertaking is still being carried out in a manner consistent with Caltrans responsibilities under the 2004 PA.

Please note that if there are any changes to the proposed activities or if the project boundaries are extended, additional review by PQS staff within the Cultural Resource Studies Office will then be required. In the event of the unexpected discovery of cultural material, all guidelines outlined in the Standard Specifications Section 5.1 Archaeological Discoveries shall be followed.

Please find attached a copy of the SHPO transmittal letter for your records. Please contact Benjamin Harris, Co-Principal Investigator – Historic Archaeology at (510) 622-8827 or at Benjamin_Harris@dot.ca.gov or Kathryn Rose, Branch Chief, Archaeology at (510) 286-5630, or kathryn_rose@dot.ca.gov.

Cc: K. Rose (ecopy), C. Hallissy (ecopy), D. Bright (ecopy), N. Bui (ecopy), OCRS Files

USFWS Biological Opinion

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Suite W-2605
Sacramento, California 95825-1846

In Reply Refer to:
08ESMF00-
2014-F-0197-2

Ms. JoAnn Cullom
California Department of Transportation
Environmental Division, MS-8E
111 Grand Avenue
Oakland, California 94612

MAR 1 0 2015

Ann Calnan
Santa Clara Valley Transportation Authority
3331 North First Street
Building B-2
San Jose, California 95134

Subject: Section 7 Consultation for the State Route 85 Express Lanes Project, Santa Clara County, California (Caltrans EA 4A7900)

Dear Ms. Cullom and Ms. Calnan:

This letter is in response to the California Department of Transportation's (Caltrans) September 24, 2014, request for consultation with the U.S. Fish and Wildlife Service (Service) on the proposed State Route (SR) 85 Express Lanes Project in Santa Clara County, California. According to the project information provided by Caltrans, the purpose of the project is to decrease traffic congestion with a combination of converting high-occupancy vehicle (HOV) lanes to HOV/toll-fee express lanes and the addition of HOV/express lanes.

The project description portion of the consultation package was considered complete on December 17, 2014, following the Service's review of additional project information provided by the Santa Clara Valley Transportation Authority (VTA).

At issue are the effects of the proposed project on the threatened California red-legged frog (*Rana draytonii*). This response has been prepared in accordance with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 *et seq.*)(Act). Critical habitat for the California red-legged frog is not designated within the action area.

Moving Ahead for Progress in the 21st Century Act (MAP-21) was signed into law on July 6, 2012. Effective, October 1, 2012, MAP-21 includes provisions to promote streamlined and accelerated project delivery. Caltrans was approved to participate in the MAP-21 Surface Transportation Project Delivery Program through the National Environmental Policy Act (NEPA) Assignment Memorandum of Understanding (MOU). The MOU allows Caltrans to assume the Federal Highway Administration's (FHWA) responsibilities under NEPA as well as FHWA's consultation and coordination responsibilities under Federal environmental laws for most highway projects in

California. Caltrans is exercising this authority as the Federal nexus for section 7 consultation for this project.

The proposed project includes an action area both within and outside the Santa Clara Valley Habitat Plan (SCVHP) Permit Area (Figure 1). As partners for the overall project, Caltrans is acting as the Federal nexus regarding the action area outside the Permit Area, and VTA is engaged as a SCVHP permittee and plan participant for the remainder of the action. The SCVHP covered portion of the proposed project is referred to in Table 2-6 of the SCVHP Land Use and Covered Activities chapter (available at http://www.scv-habitatagency.org/DocumentCenter/Home/View/124) as the *S.R. 85 HOV/HOT lane* highway project.

The portions of the proposed project that are within the SCVHP Permit Area do not require a separate biological opinion, because they have been covered under the internal section 7 biological opinion for the SCVHP. For completeness, the entire action is described herein.

The information and conclusions in this letter are based on: (1) the December 19, 2013, Biological Assessment (BA); (2) additional project information received on July 9, August 28, September 24, and December 11, 2014; (3) edits to the February 17, 2015 draft BO received from Caltrans on March 4, 2015; and (4) other information available to the Service.

Consultation History

December 23, 2013	The Service received Caltrans' December 19, 2013, request for consultation which included a BA.
February 7, 2014	The Service sent Caltrans an electronic mail (e-mail) message regarding our review of the December 19, 2013, letter. The e-mail message included comments and a request for additional information to complete Caltran's consultation request. The Service recommended that the SCVHP covered activity portion of the project be permitted through the SCVHP. The Service's e-mail message was the equivalent of a 30-day letter.
March 26, 2014	The Service met with Caltrans and VTA to discuss the proposed project and the associated consultation process.
July 9, 2014	The Service received Caltrans' June 24, 2014 response to the Service's February 14, 2014 e-mail message and request for additional information.
August 7, 2014	The Service sent Caltrans an e-mail message confirming our recommendation that Caltrans seek formal consultation on the California red-legged frog for the proposed Saratoga Creek Bridge widening and seek consultation through the SCVHP process for the southern third of the proposed project. The Service provided Caltrans with project map notes to elicit additional project information.
August 28, 2014	The Service received project mapping from Caltrans attached to an e-mail message.
February 17, 2015	The Service issued a draft BO (Service File #08ESMF00-2014-F-0197-1).

March 4, 2015	The Service received comments from Caltrans/VTA regarding the February 17, 2015 draft BO.
September 24, 2014	The Service received an e-mail message from Caltrans expressing their request to pursue formal section 7 consultation on the portion of the project not covered in the SCVHP. According to Caltrans, VTA will be submitting a request to consult on the remaining portion of the project via the SCVHP.
October 6, 2014	The Service sent Caltrans a draft project description for the project actions outside the SCVHP for review and received Caltrans' e-mail message request for a draft BO for review in advance of a final.
November 14, 2014	The Service received Caltrans's and VTA's comments on the October 6, 2014 draft project description.
November 21, 2014	The Service received requested mapping of the project footprint outside the SCVHP via an e-mail message.
November 24, 2014	The Service participated in a phone conference with Caltrans and VTA regarding steps needed to complete consultation.
December 16, 2014	The Service received additional information regarding the project actions within the SCVHP and the associated measures that will be implemented in accordance with the SCVHP.

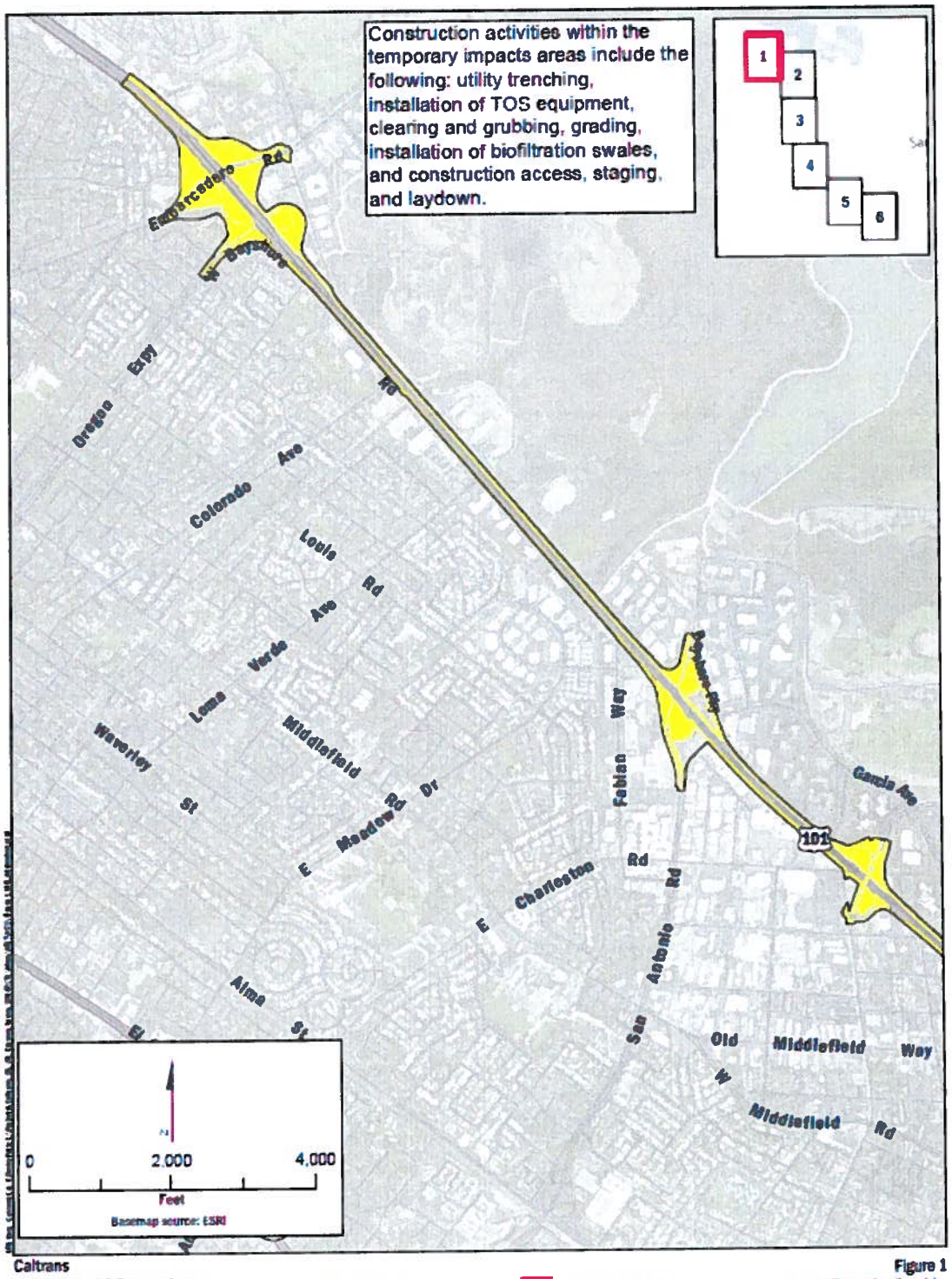
Description of the Action

According to Caltrans, the purpose of the project is to decrease traffic congestion by converting the high-occupancy vehicle (HOV) lanes on SR 85 to express lanes. Express lanes allow single-occupant vehicles to pay a toll to use the lanes, while HOVs continue to use the lanes for free. The project would also add a second express lane in both directions between SR 87 and Interstate 280 (I-280).

General conservation measures for the overall project include the following:

1. To the extent practicable, nighttime construction will be minimized. Except when necessary for construction, driver, or pedestrian safety, artificial lighting of the proposed project site during nighttime hours will be minimized to the maximum extent practicable.

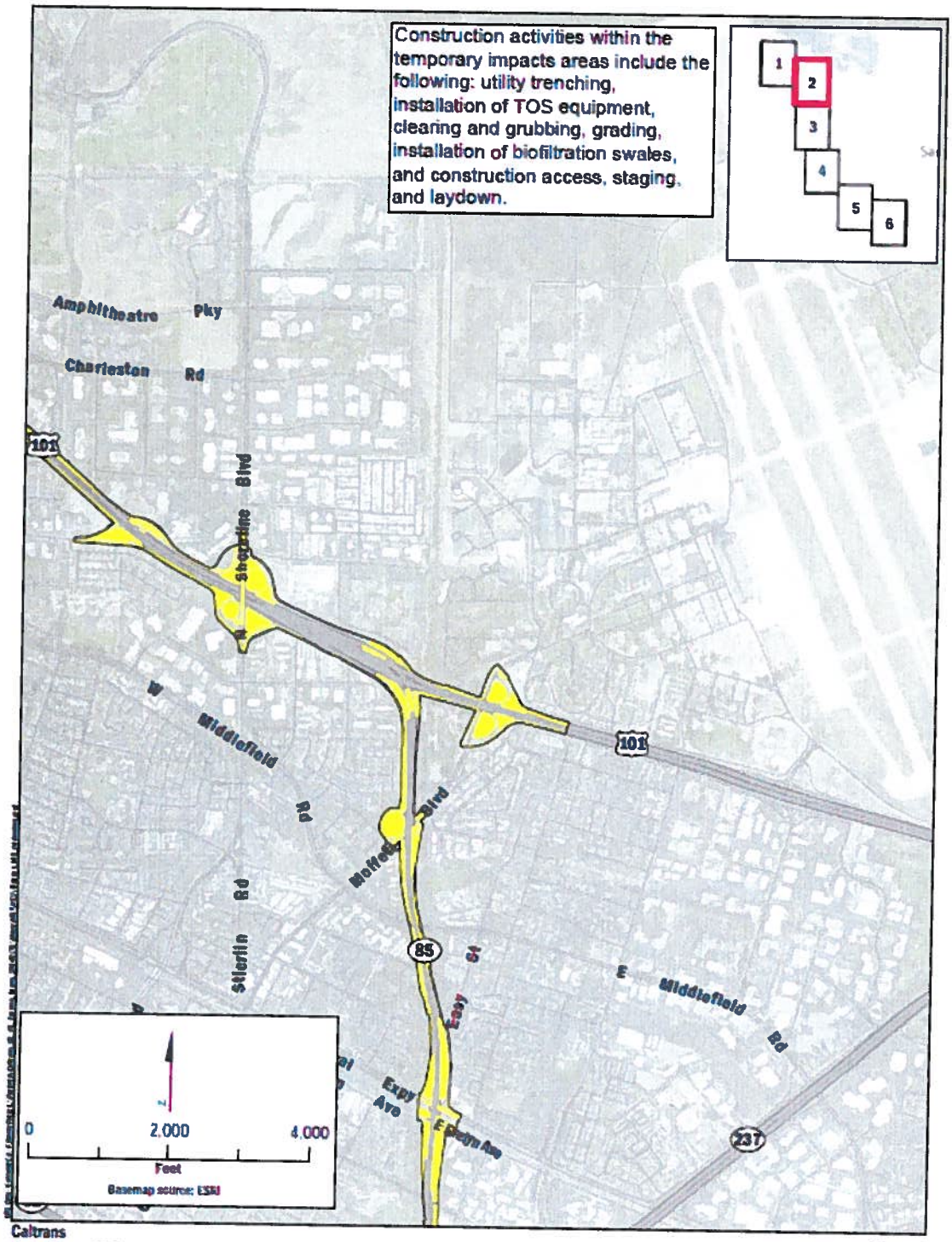
2. Vegetation will be cleared only where necessary and will be cut above soil level except in areas that will be excavated for construction activities. This will increase the possibility that plants that reproduce vegetatively will resprout. All vegetation clearing and grubbing of woody vegetation will occur by hand or using light construction equipment such as backhoes. If vegetation clearing and grubbing occurs between February 15 and August 31, a qualified biologist(s) will survey for nesting birds within the area(s) to be disturbed including a perimeter buffer of 50 feet for passerines and 300 feet for raptors before vegetation clearing activities begin. All nest avoidance requirements of the Migratory Bird Treaty Act and California Fish and Game Codes will be observed. All cleared vegetation will be removed from the project footprint to prevent attracting animals to the project site.



Caltrans
State Route 85 Express Lanes

Project Footprint
Santa Clara Valley HCP Study Area
Permanent Impact
Temporary Impact

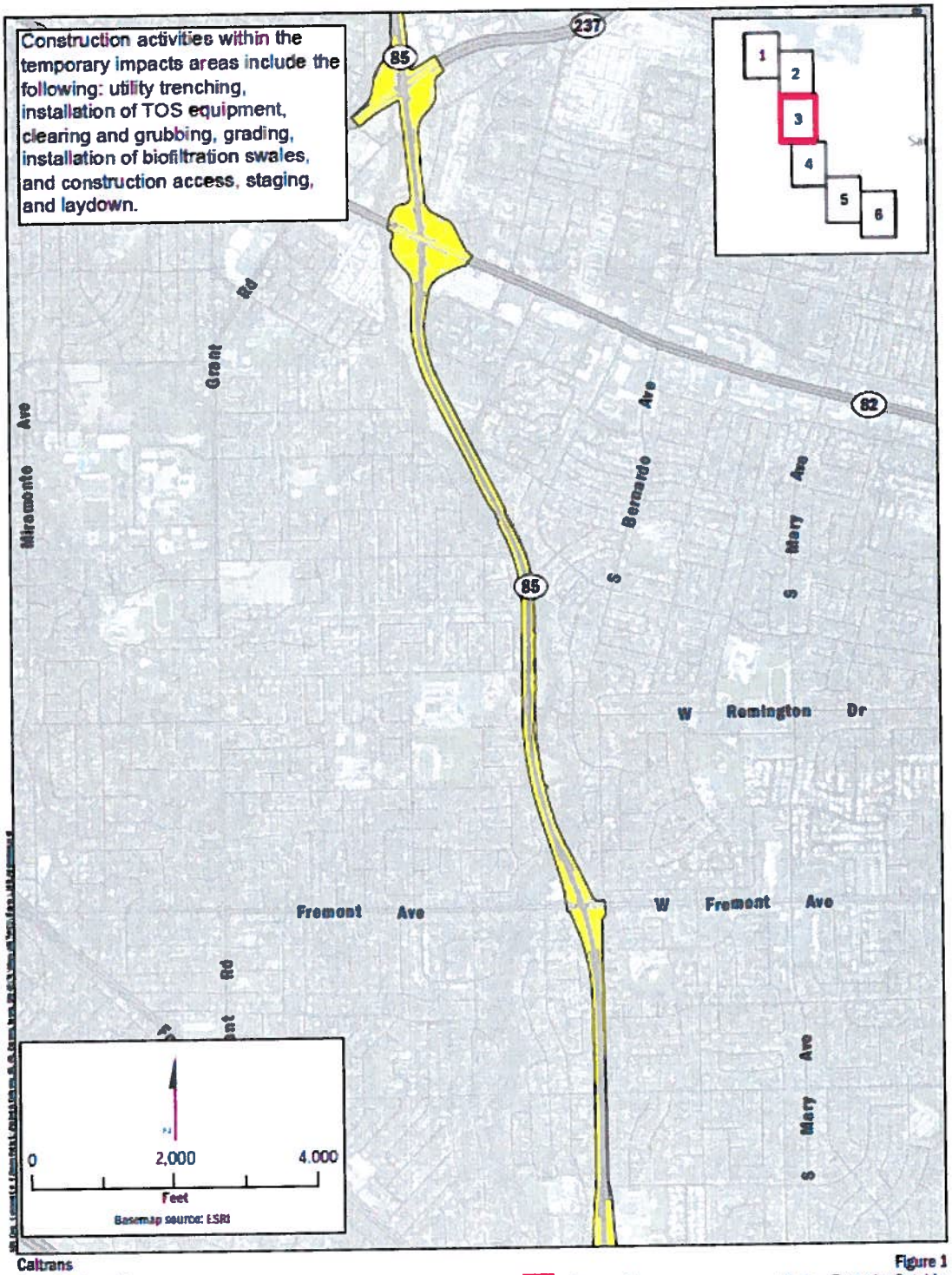
Figure 1
Project Footprint Outside
the Santa Clara Valley HCP Study Area
Sheet 1 of 6



Caltrans
State Route 85 Express Lanes

Project Footprint
Santa Clara Valley HCP Study Area
Permanent Impact
Temporary Impact

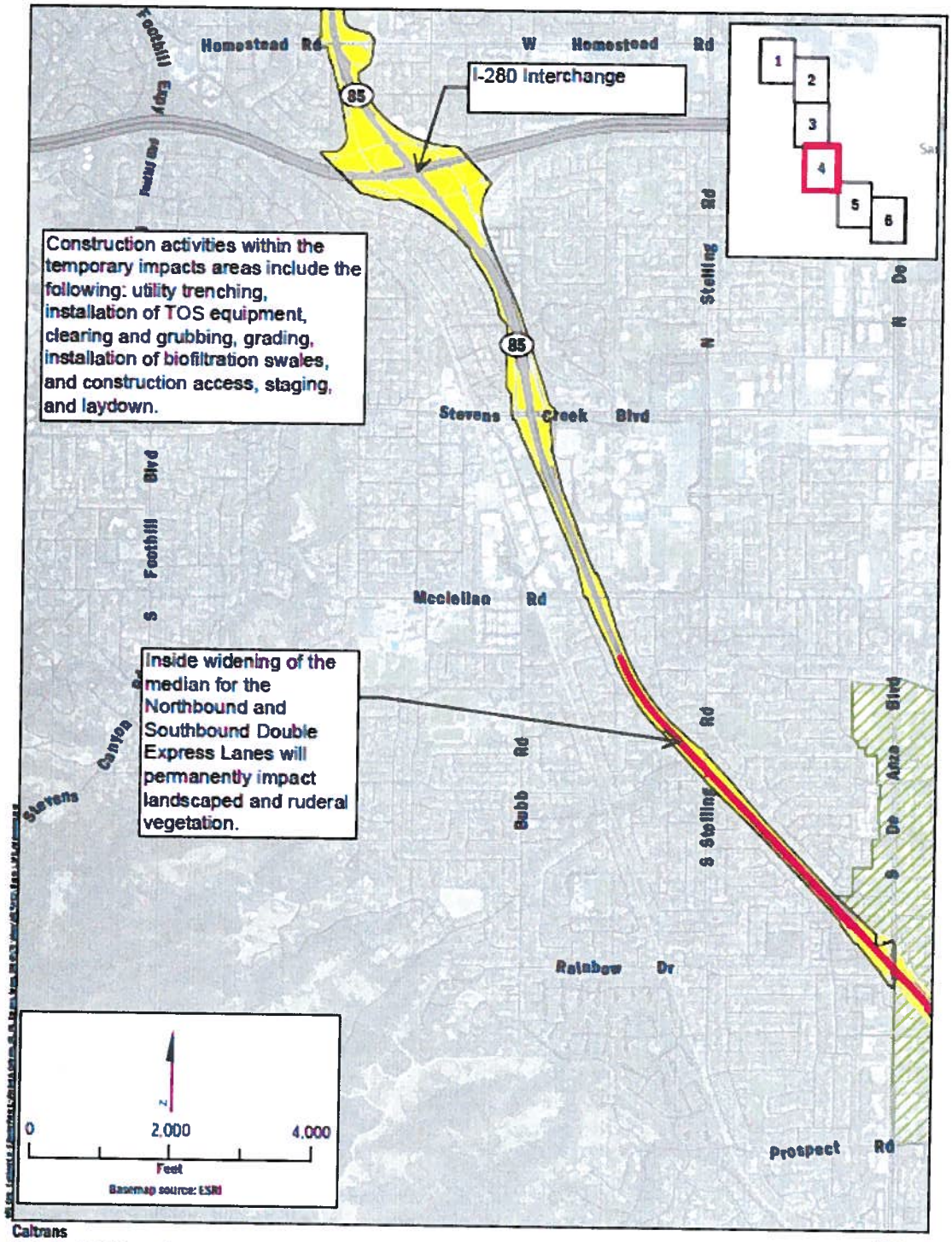
Figure 1
Project Footprint Outside
the Santa Clara Valley HCP Study Area
Sheet 2 of 6



Caltrans
State Route 85 Express Lanes

Project Footprint
Santa Clara Valley HCP Study Area
Permanent Impact
Temporary Impact

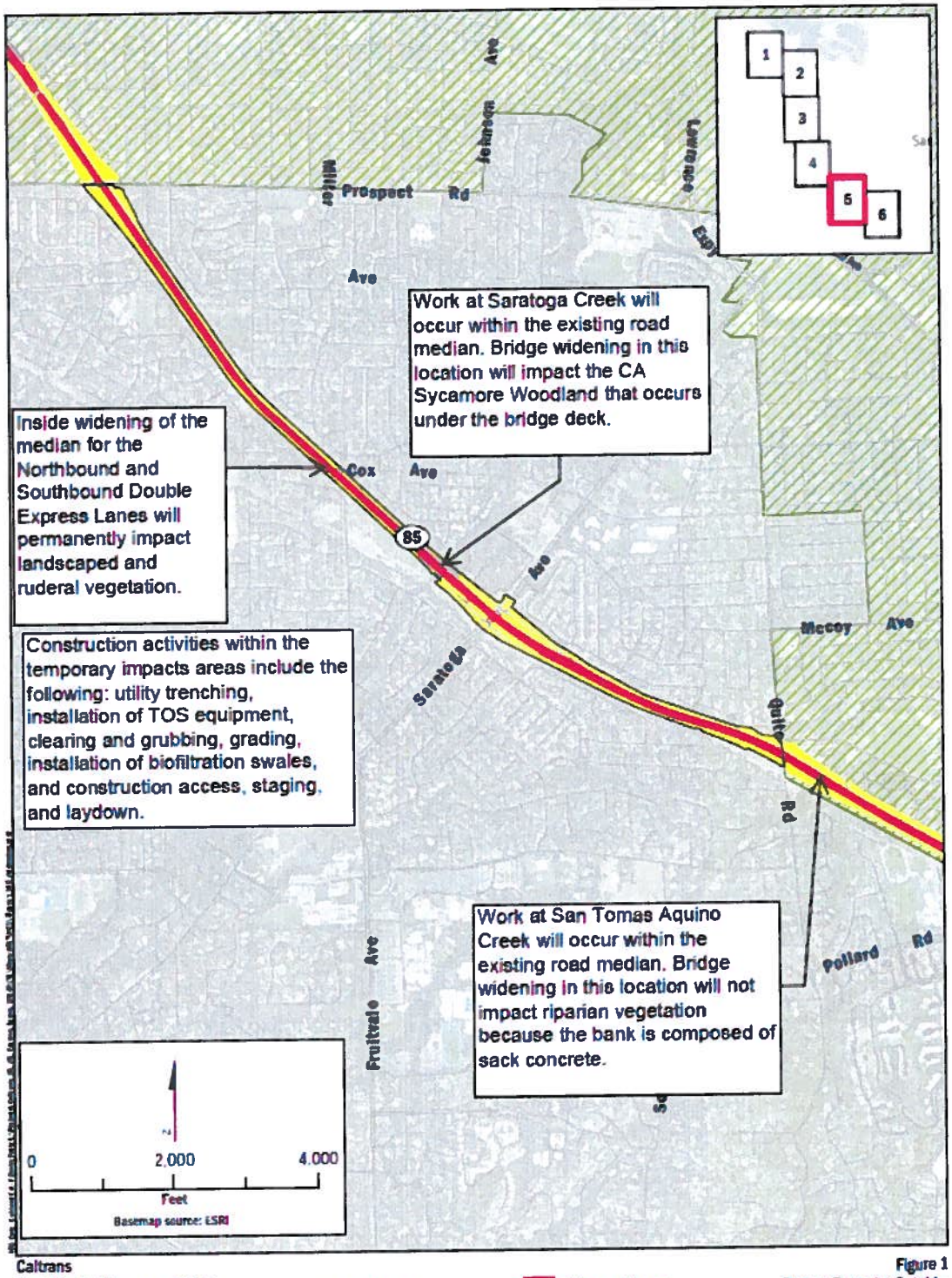
Figure 1
Project Footprint Outside
the Santa Clara Valley HCP Study Area
Sheet 3 of 6



Caltrans
State Route 85 Express Lanes

Project Footprint
Santa Clara Valley HCP Study Area
Permanent Impact
Temporary Impact

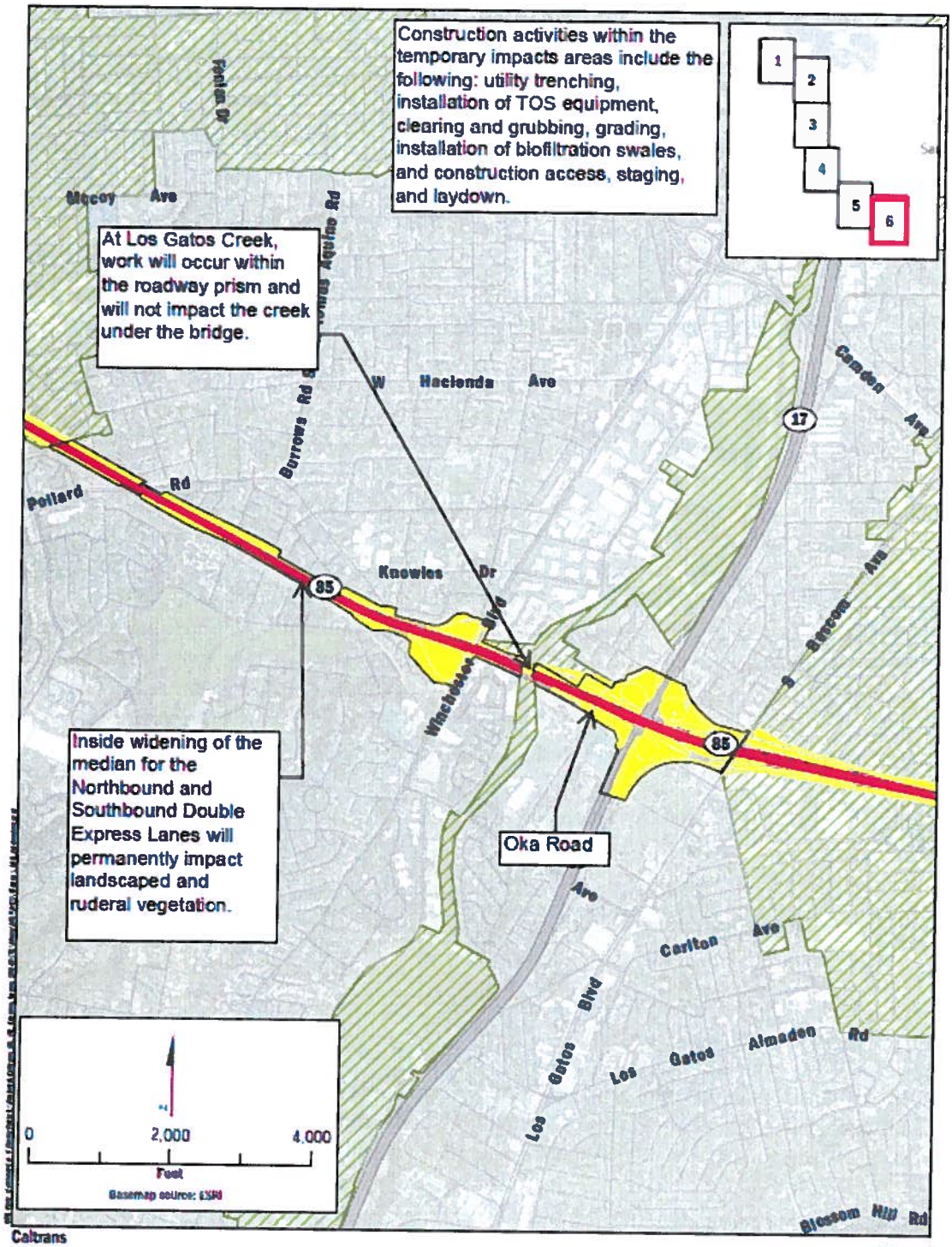
Figure 1
Project Footprint Outside
the Santa Clara Valley HCP Study Area
Sheet 4 of 6



Caltrans
State Route 85 Express Lanes

Project Footprint
Santa Clara Valley HCP Study Area
Permanent Impact
Temporary Impact

Figure 1
Project Footprint Outside
the Santa Clara Valley HCP Study Area
Sheet 5 of 6



Caltrans
State Route 85 Express Lanes

Project Footprint
Santa Clara Valley HCP Study Area
Permanent Impact
Temporary Impact

Figure 1
Project Footprint Outside the Santa Clara Valley HCP Study Area
Sheet 6 of 6

3. Environmentally Sensitive Areas, such as wetlands, waters, and trees will be delineated for avoidance with orange fencing. The fencing will be routinely monitored and maintained and will not be removed until ground activities in the proximity have been completed. Fence locations will be identified on contact plans and discussed in the Special Provisions. Project plans will include the installation specifications.

4. Project employees will be provided with written guidance governing vehicle use, speed limits on unpaved roads, fire prevention, and other hazards.

5. All food related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in closed containers and removed as necessary from the project area.

6. Caltrans standard BMPs, a Water Pollution Control Plan, and a Storm Water Pollution Prevention Plan (SWPPP) will be implemented. These plans will include, but are not limited to, the following:

    a. Appropriate erosion control measures will be used to reduce siltation and runoff of contaminants into wetlands and adjacent, ponds, streams, or riparian woodland/scrub habitat. The contractor will not be allowed to stockpile brush, loose soils, or other debris material on stream banks. Only native plant species will be used in erosion control or revegetation seed mix. Any hydroseed mulch used for revegetation will also be certified weed-free. Dry-farmed straw will not be used, and certified weed-free straw will be required where erosion control straw is to be used. Filter fences and mesh will be of a material that will not entrap reptiles and amphibians. Erosion-control measures will be placed between a water body or wetland and the outer edge of the project site.

    b. All off-road construction equipment will be cleaned of potential noxious weed sources (mud, vegetation) before entry into the project footprint. Equipment will be considered free of soil, seeds, and other such debris when a visual inspection does not disclose such material. Disassembly of equipment components or specialized inspection tools is not required.

    c. Vehicles and equipment will be parked on pavement, existing roads, or specified staging areas when not in use.

    d. No construction or maintenance vehicles will be refueled within 200 feet of wetlands and ponds unless a bermed and lined refueling area is constructed and hazardous material absorbent pads are available in the event of a spill.

7. Disturbed areas and staging areas will be cleaned up and recontoured to original grade. Permanent erosion control, including soil stabilization measures such as hydroseeding and coir netting will be applied to all temporarily affected areas within the project footprint to minimize erosion after construction. All construction-related materials, including exclusion and project boundary fencing, will be removed after construction, site clean-up, and restoration activities are complete.

8. Vegetation and trees removed by construction operations within the project limits will be replaced according to Caltrans policy. Appropriate native species will be used to the maximum extent possible, and trees, shrubs, and groundcover will be selected for drought tolerance and disease resistance. Mulch will be applied to planted areas to reduce weed

growth, conserve moisture, and minimize maintenance operations. Reclaimed water is not available for irrigation along the project corridor. Re-vegetation will take place under a separate landscape contract after completion of the roadway construction contract. The landscape contract will be funded by the parent project and will include a 3-year plant establishment period.

This consultation includes project activities in the following areas (Figure 1):

Inside the SCVHP Permit Area

The action area inside the SCVHP Permit Area includes the following.

1. An approximately 3.3-mile segment of US 101 between Bailey Avenue to the south and the SR 85 interchange in southern San Jose to the north.

2. Four noncontiguous segments of SR 85 between the US 101 interchange in southern San Jose to the south and South De Anza Boulevard to the north:

    a. An approximately 10.4-mile segment of SR 85, between the US 101 interchange in southern San Jose and Los Gatos Boulevard.

    b. The Los Gatos Creek corridor (just west of SR 17).

    c. An approximately 0.6-mile segment of SR 85, starting just north of Pollard Road to Quito Road.

    d. An approximately 0.6-mile segment of SR 85, between Prospect Road and South De Anza Boulevard.

Activities within this portion of the project include the following.

1. New striping will be installed throughout.

2. Bridge widening will occur at San Tomas Aquino Creek.

3. The overcrossings at Almaden Expressway and Camden Avenue will be widened.

4. New overhead signs and tolling devices will be installed within the median.

5. A new controller cabinet will be installed within the roadway shoulder, across from the Metcalf Power Plant.

6. New Traffic Operations Systems (TOS) equipment including traffic monitoring stations, closed circuit television cameras, cabinets, and controllers will be installed adjacent to the road shoulder throughout. Work will include trenching and installation of associated conduits.

7. Biofiltration swales will be installed within the SR 85 interchanges at Cottle Road, Blossom Hill Road, Santa Teresa Boulevard, Almaden Expressway, Camden Avenue, Union Avenue, and South De Anza Boulevard.

The following provisions will be implemented for the covered activity. The referenced conditions below are described in Chapter 6 of the SCVHP document (available at http://www.scv-habitatagency.org/DocumentCenter/Home/View/128).

VTA complies with all Conditions appropriate for the proposed project:

a. Condition 1. Avoid Direct Impacts on Legally Protected Plant and Wildlife Species.

b. Condition 2. Incorporate Urban-Reserve System Interface Design Requirements.

c. Condition 3. Maintain Hydrologic Conditions and Protect Water Quality.

d. Condition 6. Design and Construction Requirements for Covered Transportation Projects.

e. Conditions 11. Stream and Riparian Setbacks.

f. Condition 12. Wetland and Pond Avoidance and Minimization.

g. Condition 13. Serpentine and Associated Covered Species Avoidance and Minimization.

h. Condition 17. Tricolored Blackbird.

i. Condition 20. Avoid and Minimize Impacts to Covered Plant Occurrences.

2. VTA pays all applicable development fees to the Implementing Entity prior to implementing the covered activity. The estimated development fees for the project are listed in Table 1 and amount to $242,472.96. The fee amount is based on the Habitat Plan fee schedule as of August 2014. The fee schedule is adjusted annually. The fee amount may be adjusted based on various factors, including changes in impact acreage and project scheduling.

Table 1. SCVHP Development Fee Calculation

Habitat Plan Fee Type	Permanent habitat loss (acres)	Fee per acre	Total	Temporary habitat loss (acre)	Fee per acre x fee multiplication factor	Total	**TOTAL**
Land Cover Fee Fee Zone A (Ranchlands and Natural Lands)	0.45	$17,028.00	$7,662.60	1.1	$17,028.00 x 0.04	$19,411.92	**$27,074.52**
Fee Zone B (Agricultural and Valley Floor Lands)	0.43	$11,806.00	$5,076.58	12.95	$11,806.00 x 0.04	$152,887.70	**$157,964.28**
Fee Zone C (Small Vacant Sites Under 10 Acres)	0	$4,313.00	0	8.68	$4,313.00 x 0.04	$37,436.84	**$37,436.84**
Wetland Fee Willow Riparian Forest and Mixed Riparian	0	$142,838.00	0	0.14	$142,838.00	$19,997.32	**$19,997.32**
TOTAL	0.88		$12,739.18	22.87		$229,733.78	**$242,472.96**

The SCVHP requires specific avoidance and minimization measures for covered activities that have the potential to affect SCVHP covered species, sensitive habitats, natural communities, and jurisdictional wetlands and other waters in Santa Clara County. Therefore, VTA will implement all protection measures for the affected species as set forth in the SCVHP.

In addition to avoidance and minimization measures, the SCVHP utilizes a variety of development-based fess to fund mitigation that will offset losses of land cover types, covered species habitat, and other biological values. VTA will pay all applicable development fees as listed in Table 1 to the Santa Clara Valley Habitat Agency as identified and described in Chapter 9.4.1 of the SCVHP (available at http://www.scv-habitatagency.org/DocumentCenter/Home/View/131).

If implemented as described in the project description, the proposed project activities within the SCVHP Permit Area comply with the applicable conditions required by the SCVHP.

Outside the SCVHP Permit Area

The action area outside the SCVHP Permit Area includes the following.

1. An approximately 4.1-mile segment of US 101 from the Santa Clara County line at the San Francisquito Creek Bridge to Moffett Boulevard.

2. Four noncontiguous segments of SR 85 between Los Gatos Boulevard to the south and the US 101 interchange in Mountain View to the north:

    a. An approximately 0.6-mile segment from Los Gatos Boulevard to just south of the Los Gatos Creek crossing (just west of SR 17).

    b. An approximately 1.4-mile segment from just north of the Los Gatos Creek crossing (just west of SR 17) and just north of Pollard Road.

    c. An approximately 2.4-mile segment between Quito Road and Prospect Road.

    d. An approximately 8-mile segment between South De Anza Boulevard and the US 101/SR 85 Interchange in Mountain View.

Activities within this portion of the project include the following.

1. Bridge widening at Saratoga Creek.

2. Widening of the Pollard Road, Saratoga Avenue, and Oka Road overcrossings.

3. Inside widening of the median between SR 87 and I-280.

4. An auxiliary lane will be added to a 1.1-mile segment of northbound SR 85 between the existing South De Anza Boulevard northbound on-ramp and Stevens Creek Boulevard northbound off-ramp.

5. New striping will be installed throughout.

6. New overhead signs and tolling devices will be installed in the highway median throughout.

7. New TOS equipment including traffic monitoring stations, closed circuit television cameras, cabinets, and controllers will be installed adjacent to the road shoulder throughout. Work will include trenching and installation of associated conduits.

8. Biofiltration swales will be installed within the SR 85 interchanges at SR 17 and I-280.

The proposed roadway widening includes expansion of the existing SR 85 Saratoga Creek Bridge. This bridge widening is the component of the project that the Service believes may result in take of the California red-legged frog. Therefore the following BO portion of this letter will be focused upon the activities associated with Saratoga Creek Bridge construction.

The existing SR 85 Saratoga Creek crossing includes separate bridges for the north and southbound lanes. There is an open gap between these two bridges. The proposed project will allow HOV/express lane additions in both directions by expanding towards the median and closing the gap. The existing crossings consist of cast-in-place, pre-stressed concrete box girders. The existing approximately 100-foot long, single-span structures are supported on diaphragm type abutments founded on a single row of driven concrete piles.

The bridge addition will be a cast-in-place pre-stressed concrete box girder, designed to match the existing structures on either side. The addition will be constructed on falsework and the supports will be located above the Saratoga Creek high water mark. Construction will take place below the bridge deck, within the riparian corridor, but outside the high water mark. Construction will include the removal of riprap between the existing abutments with a backhoe positioned above the stream bank. Access and construction will likely require the removal of riparian trees, including arroyo willow, big-leaf maple, California sycamore, and associated understory vegetation.

Construction Schedule
Caltrans anticipates a 45-day construction period to complete the Saratoga Creek Bridge widening. Work will occur between June 15 and October 15. Construction at this location may begin as early as 2016 but an actual construction date is unknown at this point.

Staging and Access
SR 85 will be used to access the Saratoga Creek Bridge widening work area. From SR 85, the north abutment will be accessed from a rock/gravel area between the southbound bridge and the adjacent southbound off-ramp. The south abutment will be accessed from the rock/gravel/dirt area between the northbound bridge and the northbound on-ramp. Some grading may be required to prepare the access. Dirt will be placed on top the existing riprap for access and staging under the bridge.

Equipment
The equipment that will likely be needed to complete the bridge widening includes a backhoe, a compact tractor, crane, dump truck, and compressors.

Conservation Measures
Caltrans proposes to reduce adverse effects to the California red-legged frog by implementing the following measures:

1. At least 15 days prior to the onset of any construction-related activities covered in this consultation, Caltrans will submit to the Service, for approval, the name(s) and credentials of biologists it wishes to conduct activities specified for the Saratoga Creek Bridge widening. Information in the request for authorization will include, at a minimum: (1) relevant education; (2) relevant training concerning California red-legged frog identification, survey techniques, handling individuals of different age classes, and handling of different life stages by a permitted biologist or recognized species expert authorized for such activities by the Service; (3) a summary of field experience conducting requested activities (to include

project/research information); (4) a summary of BOs under which they were authorized by the Service to work with the California red-legged frog and at what level (such as construction monitoring versus handling), this will also include the names and qualifications of persons under which the work was supervised as well as the amount of work experience on the actual project; (5) a list of Federal Recovery Permits [10(a)1(A)] held or under which are authorized to work with the California red-legged frog (to include permit number, authorized activities, and name of permit holder); and (6) any relevant professional references with contact information. No project construction will begin until Caltrans has received written Service approval for biologists to conduct specified activities.

2. A Service-approved biologist will be present during all vegetation clearing and ground-disturbing activities for the Saratoga Creek Bridge work.

3. No more than 20 calendar days prior to any ground disturbance for the bridge widening, pre-construction surveys will be conducted by a Service-approved biologist for the California red-legged frog throughout the bridge widening work area. These efforts will consist of walking surveys of the project limits, including access routes, and accessible adjacent areas within at least 50 feet of the project limits. The biologist(s) will investigate all potential California red-legged frog cover sites. This includes thorough investigation of mammal burrows, appropriately sized soil cracks, space between riprap, and debris. Native vertebrates found in the cover sites will be documented and safely relocated to an adequate cover site in the action area vicinity. The entrances and other refuge features within areas of the project limits that will be subject to ground disturbance will be collapsed or removed following investigation and clearance.

4. The Service-approved biologist will perform a California red-legged frog clearance survey immediately prior to the initial ground disturbance. Safety permitting, the Service-approved biologist(s) will investigate areas of disturbed soil for signs of the listed species within 30 minutes following the initial disturbance of that given area.

5. The Service-approved biologist will conduct clearance surveys at the beginning of each day within or adjacent to suitable listed species habitat and regularly throughout the workday.

6. The Service-approved biologist will permanently and humanely remove, from the project site, any aquatic exotic wildlife species, such as bullfrogs and crayfish, to the extent possible.

7. The Service-approved biologist will have the authority to halt work through coordination with the Resident Engineer in the event that a California red-legged frog gains access to the project work area. Work will resume once the frog leaves the site voluntarily, is removed by the biologist to a release site using Service-approved handling techniques, or it is determined that the frog is not being harassed by construction activities. If take of a frog occurs, the biologist will notify the Service by telephone and e-mail within one working day.

8. Adult and juvenile frogs captured by the Service-approved biologist will be relocated to appropriate habitat within the Saratoga Creek riparian corridor but outside the work area. The priority will be to move the frog out of harm's way but as close to the capture location as possible.

9. All construction personnel will attend an environmental education program delivered by a Service-approved biologist prior to working on the Saratoga Creek Bridge. The program will

include an explanation of how to best avoid the incidental take of the California red-legged frog. The field meeting will include topics on species identification, life history, descriptions, and habitat requirements during various life stages. Emphasis will be placed on the importance of the habitat and life stage requirements within the context of project maps showing areas where avoidance and minimization measures are to be implemented. The program will include an explanation of applicable Federal and state laws protecting endangered species as well as the importance of compliance with Caltrans and various resource agency conditions.

10. The boundaries of the Saratoga Creek Bridge construction area will be delineated with high-visibility construction fencing to prevent the encroachment of construction personnel and equipment beyond the described construction footprint. The fencing will be removed only when all construction equipment is removed from the job site.

11. Caltrans does not anticipate the need for nighttime work. If nighttime work is needed to avoid safety issues or to complete work within the allotted construction season, all lighting will be directed towards the construction work taking place.

12. No pets or firearms, except those used by law enforcement personnel, will be permitted into the action area.

13. Vegetation will be cleared only where necessary and will be cut above soil level except in areas that will be subject to excavation. Vegetation clearing and grubbing will be done by hand or light construction equipment.

14. Cutting of trees and other woody vegetation within the Saratoga Creek riparian corridor will be limited to between June 15 and October 15.

15. Brush, loose soils, and other debris material will not be stockpiled on the creek bank.

16. Only native plant species will be used in the erosion control or revegetation seed mix. Any hydroseed mulch will be certified weed-free. Dry-farmed straw will not be used, and certified weed-free straw will be required where erosion control straw is to be used.

17. All off-road construction equipment will be cleaned of potential noxious weed sources (mud, vegetation) before entry into the work area.

18. Vehicles and equipment will be parked on pavement, existing roads, or specified staging areas when not in use.

19. All areas of temporary disturbance associated with the Saratoga Creek Bridge widening will be returned to pre-project or ecologically improved conditions within one year of the initial ground breaking at this location.

20. Dedicated fueling and refueling practices will be designated as part of the approved SWPPP. No construction or maintenance vehicles will be refueled within 200 feet of Saratoga Creek unless a bermed and lined refueling area is constructed and hazardous material absorbent pads are available in the event of a spill. Drip pans or absorbent pads will be used during on-site vehicle and equipment fueling.

21. All grindings and asphaltic-concrete waste will be stored within previously disturbed areas absent of habitat and at a minimum of 150 feet from any downstream riparian habitat, aquatic habitat, culvert, or drainage feature.

22. To prevent the inadvertent entrapment of the California red-legged frog, all excavated, steep-walled holes or trenches more than 1-foot deep will be covered at the close of each working day by plywood or similar materials. If it is not feasible to cover an excavation, one or more escape ramps constructed of earthen fill or wooden planks will be installed. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. If at any time a trapped animal is discovered, the biologist will immediately remove and relocate it. The Service will be notified of the incident by telephone and e-mail within one working day.

23. Plastic mono-filament netting (erosion control matting) or similar material will not be used at the project site. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.

24. If requested, before, during, or upon completion of groundbreaking and construction activities, Caltrans will allow access by Service personnel into the project footprint to inspect the project and its activities. Caltrans requests that all agency representatives contact the Resident Engineer prior to accessing the work site and review and sign the Safe Work Code of Practices, prior to accessing the work site for the first time.

25. Injured California red-legged frogs will be cared for by a Service-approved biologist or a licensed veterinarian, if necessary. Dead California red-legged frogs will be preserved according to standard museum techniques and held in a secure location. The Service will be notified within one working day of the discovery of a death or an injury to a frog resulting from project-related activities. Notification will include the date, time, and location of the incident or of the finding of a dead or injured animal clearly indicated on a United States Geological Survey (USGS) 7.5-minute quadrangle and other maps at a finer scale, as requested by the Service, and any other pertinent information.

26. Caltrans will submit post-construction compliance reports prepared by the Service-approved biologist to the Service within 60 calendar days following completion of Saratoga Creek Bridge construction or within 60 calendar days of any break in construction activity at the Saratoga Creek Bridge lasting more than 60 calendar days. This report will detail (1) dates that relevant project activities occurred; (2) pertinent information concerning the success of the project in implementing avoidance and minimization measures; (3) an explanation of failure to meet such measures, if any; (4) known project effects on the California red-legged frog; (5) occurrences of incidental take of any listed species; (6) documentation of employee environmental education; and (7) other pertinent information.

Action Area

The action area is defined in 50 CFR § 402.02, as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action." For the purposes of the effects assessment, the action area encompasses the 0.14-acre SR 85 Saratoga Creek Bridge widening construction footprint and a 300-foot buffer area up and downstream of the construction footprint which will be affected by noise, visual disturbance, and potential discharge.

Analytical Framework for the Jeopardy Determination

In accordance with policy and regulation, the jeopardy analysis in this BO relies on four components: (1) the *Status of the Species*, which evaluates the California red-legged frog range-wide conditions, the factors responsible for that conditions, and their survival and recovery needs; (2) the *Environmental Baseline*, which evaluates the condition of the listed species in the action area, the factors responsible for that condition, and the relationship of the action area to the survival and recovery of the listed species; (3) the *Effects of the Action*, which determines the direct and indirect impacts of the proposed Federal action and the effects of any interrelated or interdependent activities on the California red-legged frog; and (4) *Cumulative Effects*, which evaluates the effects of future, non-Federal activities in the action area on the listed species.

In accordance with policy and regulation, the jeopardy determination is made by evaluating the effects of the proposed Federal action in the context of the California red-legged frog's current status, taking into account any cumulative effects, to determine if implementation of the action is likely to cause an appreciable reduction in the likelihood of both the survival and recovery of the species in the wild.

The jeopardy analysis in this BO places an emphasis on consideration of the range-wide survival and recovery needs of the California red-legged frog and the role of the action area in the survival and recovery of this listed species as the context for evaluating the significance of the effects of the proposed Federal action, taken together with cumulative effects, for purposes of making the jeopardy determination.

Status of the Species

California Red-Legged Frog

Listing Status

The California red-legged frog was listed as a threatened species on May 23, 1996 (Service 1996). Critical habitat was re-designated for this species on March 17, 2010 (Service 2010). A recovery plan was published for the California red-legged frog on September 12, 2002 (Service 2002).

Description

The California red-legged frog is the largest native frog in the western United States (Wright and Wright 1949), ranging from 1.5 to 5.1 inches in length (Stebbins 2003). The abdomen and hind legs of adults are largely red, while the back is characterized by small black flecks and larger irregular dark blotches with indistinct outlines on a brown, gray, olive, or reddish background. Dorsal spots usually have light centers (Stebbins 2003), and dorsolateral folds are prominent on the back. California red-legged frogs have paired vocal sacs and vocalize in air (Hayes and Krempels 1986). Larvae (tadpoles) range from 0.6 to 3.1 inches in length, and the background color of the body is dark brown and yellow with darker spots (Storer 1925).

Distribution

The historic range of the red-legged frog extended coastally from the vicinity of Elk Creek in Mendocino County, California, and inland from the vicinity of Redding, Shasta County, California, southward to northwestern Baja California, Mexico (Jennings and Hayes 1985; Hayes and Krempels 1986; Fellers 2005). The red-legged frog was historically documented in 46 California counties but the taxon now remains in 238 streams or drainages within 23 counties, representing a loss of 70 percent of its former range (Service 2002). California red-legged frogs are still locally abundant within portions of the San Francisco Bay area and the Central Coast. Within the remaining

distribution of the species, only isolated populations have been documented in the Sierra Nevada, northern Coast Range, northern Transverse Ranges, southern Transverse Ranges, and Peninsular Ranges.

Status and Natural History

California red-legged frogs predominately inhabit permanent water sources such as streams, lakes, marshes, natural and man-made ponds, and ephemeral drainages in valley bottoms and foothills up to 4,921 feet in elevation (Jennings and Hayes 1994, Bulger *et al.* 2003, Stebbins 2003). However, California red-legged frogs also have been found in ephemeral creeks and drainages and in ponds that may or may not have riparian vegetation. California red-legged frogs also can be found in disturbed areas such as channelized creeks and drainage ditches in urban and agricultural areas. For example, an adult California red-legged frog was observed in a shallow isolated pool on North Slough Creek in the American Canyon area of Napa County (C. Gaber, PG&E, pers. comm., 2008). This frog location was surrounded by vineyard development. Another adult California red-legged frog was observed under debris in an unpaved parking lot in a heavily industrial area of Burlingame (P. Kobernus, Coast Ridge Ecology, pers. comm., 2008). This frog was likely utilizing a nearby drainage ditch. Caltrans also has discovered California red-legged frog adults, tadpoles, and egg masses within a storm drainage system within a major cloverleaf intersection of Millbrae Avenue and SR 101 in a heavily developed area of San Mateo County (Caltrans 2007). California red-legged frog has the potential to persist in disturbed areas as long as those locations provide at least one or more of their life history requirements.

California red-legged frogs typically breed between November and April in still or slow-moving water at least 2.5 feet in depth with emergent vegetation, such as cattails, tules or overhanging willows (Hayes and Jennings 1988). There are earlier breeding records from the southern portion of their range (Storer 1925). Female frogs deposit egg masses on emergent vegetation so that the egg mass floats on or near the surface of the water (Hayes and Miyamoto 1984). Individuals occurring in coastal areas are active year-round (Jennings *et al.* 1992), whereas those found in interior sites are normally less active during the cold and dry seasons.

During other parts of the year, habitat includes nearly any area within 1-2 miles of a breeding site that stays moist and cool through the summer (Fellers 2005). According to Fellers (2005), this can include vegetated areas with coyote brush, California blackberry thickets, and root masses associated with willow and California bay trees. Sometimes the non-breeding habitat used by California red-legged frogs is extremely limited in size. For example, non-breeding California red-legged frogs have been found in a 6-foot wide coyote brush thicket growing along a small intermittent creek surrounded by heavily grazed grassland (Fellers 2005). Sheltering habitat for California red-legged frogs is potentially all aquatic, riparian, and upland areas within the range of the species and includes any landscape features that provide cover, such as existing animal burrows, boulders or rocks, organic debris such as downed trees or logs, and industrial debris. Agricultural features such as drains, watering troughs, spring boxes, abandoned structures, or hay stacks may also be used. Incised stream channels with portions narrower and depths greater than 18 inches also may provide important summer sheltering habitat. Accessibility to sheltering habitat is essential for the survival of California red-legged frogs within a watershed, and can be a factor limiting frog population numbers and survival.

California red-legged frogs do not have a distinct breeding migration (Fellers 2005). Adult frogs are often associated with permanent bodies of water. Some frogs remain at breeding sites all year while others disperse. Dispersal distances are typically less than 0.5 mile, with other individuals moving up to 1-2 miles (Fellers 2005). Movements are typically along riparian corridors, but some individuals,

especially on rainy nights, move directly from one site to another through normally inhospitable habitats, such as heavily grazed pastures or oak-grassland savannas (Fellers 2005).

In a study of California red-legged frog terrestrial activity in a mesic area of the Santa Cruz Mountains, Bulger *et al.* (2003) categorized terrestrial use as migratory and non-migratory. The latter occurred over one to several days and was associated with precipitation events. Migratory movements were characterized as the movement between aquatic sites and were most often associated with breeding activities. Bulger *et al.* (2003) reported that non-migrating frogs typically stayed within 200 feet of aquatic habitat 90 percent of the time and were most often associated with dense vegetative cover, *i.e.* California blackberry, poison oak and coyote brush. Dispersing frogs in northern Santa Cruz County traveled distances from 0.25-mile to more than 2 miles without apparent regard to topography, vegetation type, or riparian corridors (Bulger *et al.* 2003).

In a study of California red-legged frog terrestrial activity in a xeric environment, Tatarian (2008) noted that 57 percent of frogs fitted with radio transmitters in the Round Valley study area in eastern Contra Costa County stayed at their breeding pools, whereas 43 percent moved into adjacent upland habitat or to other aquatic sites. This study reported a peak of seasonal terrestrial movement occurring in the fall months, with movement commencing with the first 0.2 inch of precipitation. Movements away from the source pools tapered off into spring. Upland movement activities ranged from 3 to 233 feet, averaging 80 feet, and were associated with a variety of refugia including grass thatch, crevices, cow hoof prints, ground squirrel burrows at the bases of trees or rocks, logs, and a downed barn door; others were associated with upland sites lacking refugia (Tatarian 2008). The majority of terrestrial movements lasted from 1-4 days; however, an adult female was reported to remain in upland habitat for 50 days (Tatarian 2008). Uplands closer to aquatic sites were used more often and frog refugia were more commonly associated with areas exhibiting higher object cover (*e.g.*, woody debris, rocks, and vegetative cover). Subterranean cover was not significantly different between occupied upland habitat and non-occupied upland habitat.

California red-legged frogs are often prolific breeders, laying their eggs during or shortly after large rainfall events in late winter and early spring (Hayes and Miyamoto 1984). Egg masses containing 2,000-5,000 eggs are attached to vegetation below the surface and hatch after 6-14 days (Storer 1925, Jennings and Hayes 1994). In coastal lagoons, the most significant mortality factor in the pre-hatching stage is water salinity (Jennings *et al.* 1992). Eggs exposed to salinity levels greater than 4.5 parts per thousand results in 100 percent mortality (Jennings and Hayes 1990). Increased siltation during the breeding season can cause asphyxiation of eggs and small larvae. Larvae undergo metamorphosis 3.5-7 months following hatching and reach sexual maturity at 2-3 years of age (Storer 1925; Wright and Wright 1949; Jennings and Hayes 1985, 1990, 1994). Of the various life stages, larvae probably experience the highest mortality rates, with less than 1 percent of eggs laid reaching metamorphosis (Jennings *et al.* 1992). Sexual maturity normally is reached at 3-4 years of age (Storer 1925; Jennings and Hayes 1985). California red-legged frogs may live 8-10 years (Jennings *et al.* 1992). Populations of California red-legged frogs fluctuate from year to year. When conditions are favorable California red-legged frogs can experience extremely high rates of reproduction and thus produce large numbers of dispersing young and a concomitant increase in the number of occupied sites. In contrast, California red-legged frogs may temporarily disappear from an area when conditions are stressful (*e.g.*, drought).

California red-legged frogs have a diverse diet which changes as they mature. The diet of larval California red-legged frogs is not well studied, but is likely similar to that of other ranid frogs, which feed on algae, diatoms, and detritus by grazing on the surfaces of rocks and vegetation (Fellers 2005; Kupferberg 1996a, 1996b, 1997). Hayes and Tennant (1985) analyzed the diets of California red-

legged frogs from Cañada de la Gaviota in Santa Barbara County during the winter of 1981 and found invertebrates (comprising 42 taxa) to be the most common prey item consumed; however, they speculated that this was opportunistic and varied based on prey availability. They ascertained that larger frogs consumed larger prey and were recorded to have preyed on Pacific tree frogs, three-spined stickleback and to a limited extent, California mice, which were abundant at the study site (Hayes and Tennant 1985, Fellers 2005). Although larger vertebrate prey was consumed less frequently, it represented over half of the prey mass eaten by larger frogs suggesting that such prey may play an energetically important role in their diets (Hayes and Tennant 1985). Juvenile and subadult/adult frogs varied in their feeding activity periods; juveniles fed for longer periods throughout the day and night, while subadult/adults fed nocturnally (Hayes and Tennant 1985). Juveniles were significantly less successful at capturing prey and all life history stages exhibited poor prey discrimination; feeding on several inanimate objects that moved through their field of view (Hayes and Tennant 1985).

Metapopulation and Patch Dynamics

The direction and type of habitat used by dispersing animals is especially important in fragmented environments (Forys and Humphrey 1996). Models of habitat patch geometry predict that individual animals will exit patches at more "permeable" areas (Buechner 1987; Stamps *et al.* 1987). A landscape corridor may increase the patch-edge permeability by extending patch habitat (La Polla and Barrett 1993), and allow individuals to move from one patch to another. The geometric and habitat features that constitute a "corridor" must be determined from the perspective of the animal (Forys and Humphrey 1996).

Because their habitats have been fragmented, many endangered and threatened species exist as metapopulations (Verboom and Apeldom 1990; Verboom *et al.* 1991). A metapopulation is a collection of spatially discrete subpopulations that are connected by the dispersal movements of the individuals (Levins 1970; Hanski 1991). For metapopulations of listed species, a prerequisite to recovery is determining if unoccupied habitat patches are vacant due to the attributes of the habitat patch (food, cover, and patch area) or due to patch context (distance of the patch to other patches and distance of the patch to other features). Subpopulations of patches with higher quality food and cover are more likely to persist because they can support more individuals. Large populations have less of a chance of extinction due to stochastic events (Gilpin and Soule 1986). Similarly, small patches will support fewer individuals, increasing the rate of extinction. Patches that are near occupied patches are more likely to be recolonized when local extinction occurs and may benefit from emigration of individuals via the "rescue" effect (Hanski 1982; Fahrig and Merriam 1985; Gotelli 1991; Holt 1993). For the metapopulation to persist, the rate of patches being colonized must exceed the rate of patches going extinct (Levins 1970). If some subpopulations go extinct regardless of patch context, recovery actions should be placed on patch attributes. Patches could be managed to increase the availability of food and/or cover.

Movements and dispersal corridors likely are critical to California red-legged frog population dynamics, particularly because the animals likely currently persist as metapopulations with disjunct population centers. Movement and dispersal corridors are important for alleviating over-crowding and intraspecific competition, and also they are important for facilitating the recolonization of areas where the animal has been extirpated. Movement between population centers maintains gene flow and reduced genetic isolation. Genetically isolated populations are at greater risk of deleterious genetic effects such as inbreeding, genetic drift, and founder effects. The survival of wildlife species in fragmented habitats may ultimately depend on their ability to move among patches to access necessary resources, retain genetic diversity, and maintain reproductive capacity within populations (Petit *et al.* 1995; Buza *et al.* 2000; Hilty and Merenlender 2004).

Most metapopulation or metapopulation-like models of patchy populations do not directly include the effects of dispersal mortality on population dynamics (Hanski 1994; With and Crist 1995; Lindenmayer and Possingham 1996). Based on these models, it has become a widely held notion that more vagile species have a higher tolerance to habitat loss and fragmentation than less vagile species. But models that include dispersal mortality predict the opposite: more vagile species should be more vulnerable to habitat loss and fragmentation because they are more susceptible to dispersal mortality (Fahrig 1998; Casagrandi and Gatto 1999). This prediction is supported by Gibbs (1998), who examined the presence-absence of five amphibian species across a gradient of habitat loss. He found that species with low dispersal rates are better able than more vagile species to persist in landscapes with low habitat cover. Gibbs (1998) postulated that the land between habitats serves as a demographic "drain" for many amphibians. Furthermore, Bonnet *et al.* (1999) found that snake species that use frequent long-distance movements have higher mortality rates than do sedentary species.

Threats

Habitat loss, non-native species introduction, and urban encroachment are the primary factors that have adversely affected the red-legged frog throughout its range. Several researchers in central California have noted the decline and eventual local disappearance of California and northern California red-legged frogs (*Rana aurora*) in systems supporting bullfrogs (Jennings and Hayes 1990; Twedt 1993), red swamp crayfish, signal crayfish, and several species of warm water fish including sunfish, goldfish, common carp, and mosquitofish (Moyle 1976, Barry 1992, Hunt 1993, Fisher and Schaffer 1996). This has been attributed to predation, competition, and reproduction interference. Twedt (1993) documented bullfrog predation of juvenile northern California red-legged frogs, and suggested that bullfrogs could prey on subadult northern California red-legged frogs as well. Bullfrogs may also have a competitive advantage over California red-legged frogs. For instance, bullfrogs are larger and possess more generalized food habits (Bury and Whelan 1984). In addition, bullfrogs have an extended breeding season (Storer 1933) during which an individual female can produce as many as 20,000 eggs (Emlen 1977). Furthermore, bullfrog larvae are unpalatable to predatory fish (Kruse and Francis 1977). Bullfrogs also interfere with red-legged frog reproduction. Thus bullfrogs are able to prey upon and out-compete California red-legged frogs, especially in sub-optimal habitat. Both California and northern California red-legged frogs have also been observed in amplexus (mounted on) with both male and female bullfrogs (Jennings and Hayes 1990; Jennings 1993; Twedt 1993).

The urbanization of land within and adjacent to red-legged frog habitat has also adversely affected California red-legged frogs. These declines are attributed to channelization of riparian areas, enclosure of the channels by urban development that blocks red-legged frog dispersal, and the introduction of predatory fishes and bullfrogs.

Diseases may also pose a significant threat though the specific effects of diseases on the California red-legged frog are not known. Pathogens are suspected of causing global amphibian declines (Davidson *et al.* 2003). Chytridiomycosis and ranaviruses are a potential threat to the red-legged frog because these diseases have been found to adversely affect other amphibians, including the listed species (Davidson *et al.* 2003; Lips *et al.* 2003). Non-native species, such as bullfrogs and non-native tiger salamanders that live within the range of the California red-legged frog have been identified as potential carriers of these diseases (Garner *et al.* 2005). Human activities can facilitate the spread of disease by encouraging the further introduction of non-native carriers and by acting as carriers themselves (*i.e.*, contaminated boots or fishing equipment). Human activities can also introduce stress by other means, such as habitat fragmentation, that results in the listed species being more susceptible to the effects of disease. Disease will likely become a growing threat because of the

relatively small and fragmented remaining California red-legged frog breeding sites, the many stresses on these sites due to habitat losses and alterations, and the many other potential disease-enhancing anthropogenic changes that have occurred both inside and outside the species' range.

Negative effects to wildlife populations from roads and pavement may extend some distance from the actual road. The phenomenon can result from any of the effects already described in this BO, such as vehicle-related mortality, habitat degradation, and invasive exotic species. Forman and Deblinger (1998, 2000) described the area affected as the "road effect" zone. Along a 4-lane road in Massachusetts, they determined that this zone extend for an average of approximately 980 feet to either side of the road for an average total zone width of approximately 1,970 feet. They describe the boundaries of this zone as asymmetric and in some areas diminished wildlife use attributed to road effects was detected greater than 0.6 mile from Massachusetts Route 2. The "road-zone" effect can also be subtle. Van der Zande *et al.* (1980) reported that lapwings and black-tailed godwits feeding at 1,575-6,560 feet from roads were disturbed by passing vehicles. The heart rate, metabolic rate and energy expenditure of female bighorn sheep increase near roads (MacArthur *et al.* 1979). Trombulak and Frossell (2000) described another type of "road-zone' effect due to contaminants. Heavy metal concentrations from vehicle exhaust were greatest within 66 feet of roads, but elevated levels of metals in both soil and plants were detected at 660 feet of roads. The "road-zone" apparently varies with habitat type and traffic volume. Based on responses by birds, Forman (2000) estimated the effect zone along primary roads of 1,000 feet in woodlands, 1,197 feet in grasslands, and 2,657 feet in natural lands near urban areas. Along secondary roads with lower traffic volumes, the effect zone was 656 feet. The "road-zone" effect with regard to California red-legged frogs has not been adequately investigated.

The necessity of moving between multiple habitats and breeding ponds means that many amphibian species, such as the California red-legged frog, are especially vulnerable to roads and well-used large paved areas in the landscape. Van Gelder (1973) and Cooke (1995) have examined the effect of roads on amphibians and found that because of their activity patterns, population structure, and preferred habitats, aquatic breeding amphibians are more vulnerable to traffic mortality than some other species. Large, high-volume highways pose a nearly impenetrable barrier to amphibians and result in mortality to individual animals as well as significantly fragmenting habitat. Hels and Buchwald (2001) found that mortality rates for anurans on high traffic roads are higher than on low traffic roads. Vos and Chardon (1998) found a significant negative effect of road density on the occupation probability of ponds by the moor frog (*Rana arvalis*) in the Netherlands. In addition, incidents of very large numbers of road-killed frogs are well documented (*e.g.*, Ashley and Robinson 1996), and studies have shown strong population level effects of traffic density (Carr and Fahrig 2001) and high traffic roads on these amphibians (Van Gelder 1973; Vos and Chardon 1998). Most studies regularly count road kills from slow moving vehicles (Hansen 1982; Rosen and Lowe 1994; Drews 1995; Mallick *et al.* 1998) or by foot (Munguira and Thomas 1992). These studies assume that every victim is observed, which may be true for large conspicuous mammals, but it certainly is not true for small animals, such as the California red-legged frog. Amphibians appear especially vulnerable to traffic mortality because they readily attempt to cross roads, are slow-moving and small, and thus cannot easily be avoided by drivers (Carr and Fahrig 2001).

Environmental Baseline

The action area is located with the range of the California red-legged frog. A map depicting the species' range is included in the Service's online profile for the species at http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=D02D. The action area is

also within the California red-legged frog's South and East San Francisco Bay Recovery Area (Area 5) (Service 2002).

The SR 85 Saratoga Creek Bridge crossing is located in the City of Saratoga. The creek originates on the eastern slope of the Santa Cruz Mountains and passes through the project area before flowing into San Tomas Aquino Creek, which continues through the Santa Clara Valley to the Lower South San Francisco Bay. The Saratoga Creek corridor becomes increasingly confined by urban development as it approaches the Santa Clara Valley. The action area defines a relative transition where portions of the channel are increasingly subject to engineering, as evidenced by more frequent stabilization structures as well as bridge and culvert crossings. The creek maintains a narrow riparian corridor despite the urban setting. The riparian and aquatic habitats remain occupied by native fish and other native wildlife species.

Although confined and lacking extensive upland habitat, urban creeks in the Bay Area such as Saratoga Creek continue to provide suitable habitat for the California red-legged frog. The listed frog has remained resilient in the Bay Area. Despite significant habitat loss and degradation, the frog and other riparian dwellers can be sustained in less than ideal situations given the availability of basic life history resources such as cover, prey availability, and sufficient aquatic resources.

The construction footprint includes riparian trees and an associated understory as well as riprap that provide cover for the California red-legged frog and their prey. Flow is likely augmented by urban runoff and provides aquatic habitat for frogs, fish, and other wildlife, including their prey. It is uncertain where the closest California red-legged frog breeding habitat occurs in relation to the action area but the Saratoga Creek corridor provides an extensive movement corridor for access to resources up and downstream of the construction footprint. California red-legged frog breeding habitat has been documented in the neighboring Calabasas Creek and similar habitat conditions may exist in Saratoga Creek (CDFW 2014a and b, Occurrence #961). At its closest, Calabasas Creek is approximately 0.85 mile from Saratoga Creek over open upland habitat.

The California Natural Diversity Database (CNDDB) includes a California red-legged frog record approximately 2.4 miles upstream of the construction footprint (CDFW 2014a and b, Occurrence #211). The record included a California red-legged frog discovered under debris, adjacent to a seep and Saratoga Creek. The previously referenced observation in Calabasas Creek is approximately 2.8 miles west of the construction footprint (CDFW 2014a and b, Occurrence #961). The record included the observation of adult and tadpole frogs, confirming breeding with the creek.

The Service believes that the California red-legged frog is reasonably certain to occur within the action area because: (1) the project is located within the species' range and current distribution; (2) the species has been documented in Saratoga Creek; (3) there are no significant barriers to frog movement between the recorded occurrence and the action area; (4) the action areas includes suitable riparian and aquatic habitat for cover, forage, and movement; and (5) the biology and ecology of the animal.

Effects of the Action

Direct effects of the proposed project are effects occurring within the action area during the construction activity phase. Direct effects may be temporary (lasting less than 1 year) or permanent (lasting more than one year). Indirect effects are the effects of the proposed project generally occurring later in time after construction has been completed (*e.g.*, degradation of habitat due to the spread of invasive plant species; barriers to dispersal due to the installation of retaining walls). An

interrelated activity is an activity that is part of the proposed project and depends on the proposed project for its justification. An interdependent activity is an activity that has no independent utility apart from the action under consultation.

The action area provides suitable habitat for the California red-legged frog. As quantified in the December 19, 2013 BA, the Saratoga Creek Bridge widening, including staging and access, will be contained within a 0.14-acre activity footprint. Staging and access will be located on areas of compacted soil and gravel. Equipment working below the bridge will be positioned on top of compacted soil and existing riprap. Ground disturbing activities will include vegetation clearing and the construction of temporary falsework support structures within the Saratoga Creek riparian area. Riprap will be removed for the falsework and the temporary work areas where vegetation was removed will be stabilized and treated with a native hydroseed mix. Ultimately, the project will result in additional shading of the creek and riparian area due to the widening.

Caltrans proposes to minimize adverse effects related to the proposed project by implementing the *Conservation Measures* included in the *Description of the Action* section of this BO. Effective implementation of the *Conservation Measures* will likely minimize but not prevent adverse effects to the California red-legged frog.

Staging, access, and the activities associated with the ground work will result in adverse effects to the California red-legged frog. Project activities will occur within confined riparian habitat immediately adjacent to Saratoga Creek. The project activities are most likely to directly affect adult and juvenile California red-legged frog. Frog eggs and larval frogs could be adversely affected by project-related discharge if breeding habitat occurs downstream. However, implementation of proposed conservation measures, standard Caltrans BMPs, and the SWPPP are expected to result in reasonable avoidance of in-stream discharge. The Service concludes that the California red-legged frog could be encountered throughout the 0.14-acre Saratoga Creek Bridge construction footprint.

Access by construction equipment and personnel and ground disturbing activities could result in the disturbance and potential death of individual frogs. It will be important that the Service-approved biologist "clear" sites to avoid crushing or otherwise harming frogs above ground, below ground, or under cover sites such as riprap or debris. This can be especially difficult in areas of vegetative cover and amongst widely distributed riprap rocks.

Biological monitoring will include pre-construction surveys as well as an active presence during construction. The project is situated within a riparian corridor in which frogs would routinely move through as well as back and forth between the creek and riparian area. Frogs may be actively moving around, through, or within the work area during the evening as well as when work is taking place. This places greater emphasis on thorough biological clearance of work areas and under staged equipment and materials prior to the start of each day's activities.

If unrestricted, biologists and construction workers traveling to the action area from other project sites may transmit diseases by introducing contaminated equipment. The chance of a disease being introduced into a new area is greater today than in the past due to the increasing occurrences of disease throughout amphibian populations in California and the United States. It is possible that chytridiomycosis, caused by chytrid fungus, may exacerbate the effects of other diseases on amphibians or increase the sensitivity of the amphibian to environmental changes (*e.g.*, water pH) that reduce normal immune response capabilities (Bosch *et al.* 2001, Weldon *et al.* 2004).

California red-legged frogs and their prey could also be affected by contamination due to chemical or sediment discharge. Exposure pathways could include inhalation, dermal contact, direct ingestion, or secondary ingestion of contaminated soil, plants, or prey species. Exposure to contaminants could cause short- or long-term morbidity, possibly resulting in reduced productivity or mortality. However, Caltrans proposes to reduce these risks by implementing a SWPPP, standardized BMPs, and erosion and dust control measures. These measures will include refueling, oiling, or cleaning of vehicles and equipment a minimum of 200 feet from Saratoga Creek; installing coir rolls, straw wattles and/or silt fencing to capture sediment and prevent runoff or other harmful chemicals from entering the aquatic habitat; and locating staging, storage and parking areas away from aquatic habitat.

Discovery, capture, and relocation of individual California red-legged frogs may avoid injury or mortality due to construction activities; however, capturing and handling animals may result in stress and/or inadvertent injury during handling, containment, and transport.

Construction noise, vibration, increased human activity, and artificial lighting during the project may interfere with normal behaviors such as feeding, sheltering, movement between resources, and other essential behaviors. This can result in avoidance of areas that have suitable habitat but intolerable levels of disturbance. Proper trash disposal is often difficult to enforce and is a common non-compliance issue. Improperly disposed edible trash could attract predators, such as raccoons, crows, and ravens, to the site, which could subsequently prey on the listed herpetofauna.

Caltrans' commitment to use erosion control devices other than mono-filament should be effective in avoiding the associated risk of entrapment that can result in death by predation, starvation, or desiccation (Stuart *et al.* 2001).

Cumulative Effects

Cumulative effects include the effects of future State, Tribal, local or private actions that are reasonably certain to occur in the action area considered in this BO. Future Federal actions that are unrelated to the SR 85 Express Lanes Project are not considered in this section because they require separate consultation pursuant to section 7 of the Act. The Service is not aware of specific projects that might affect the California red-legged frog in the action area that are currently under review by State, county, or local authorities. The remainder of the larger SR 85 Express Lanes Project is addressed in an earlier section of this document as a covered activity under the Santa Clara Valley HCP.

Conclusion

After reviewing the current status of the California red-legged frog, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects on the species, it is the Service's biological opinion that the SR 85 Express Lanes Project, outside the SCVHP Permit Area, as described herein, is not likely to jeopardize the continued existence of the species. We base this conclusion on the following: (1) the effects to listed species are likely limited to the Saratoga Creek Bridge widening component; (2) the activity period will be relatively short; (3) the activity and resulting bridge widening is unlikely to further degrade baseline habitat conditions; (4) work will not occur within the bed and bank of Saratoga Creek and will not require in-water work; and (5) successful implementation of the described *Conservation Measures* is likely to reduce the potential for proposed construction activities to result in disruption of normal behavior or risk of injury.

INCIDENTAL TAKE STATEMENT

Section 9(a)(1) of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened fish and wildlife species without special exemption. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harass is defined by the Service as an intentional or negligent act or omission which creates the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. Harm is defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns including breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with this *Incidental Take Statement.*

The measures described below are non-discretionary, and must be implemented by Caltrans so that they become binding conditions of any grant or permit issued to Caltrans as appropriate, in order for the exemption in section 7(o)(2) to apply. Caltrans has a continuing duty to regulate the activity covered by this *Incidental Take Statement.* If Caltrans (1) fails to assume and implement the *Terms and Conditions* or (2) fails to adhere to the *Terms and Conditions* of the *Incidental Take Statement* through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, Caltrans must report the progress of the action and its impact on the species to the Service as specified in the *Incidental Take Statement* [50 CFR §402.14(i)(3)].

Amount or Extent of Take

The Service anticipates that incidental take of the California red-legged frog will be difficult to detect due to their small size, wariness, and cryptic nature. When California red-legged frogs are not in their aquatic breeding sites, they may be taking cover in burrows, dense vegetation, or other cover sites a distance from the breeding habitat. Finding an injured or dead California red-legged frog is unlikely due to their relatively small body size, rapid carcass deterioration, and likelihood that the remains will be removed by a scavenger. Losses of this species may also be difficult to quantify due to a lack of baseline survey data and seasonal/annual fluctuations in their numbers due to environmental or human-caused disturbances. There is a risk of harm, harassment, injury, and mortality as a result of the proposed construction activities, the permanent and temporary loss/degradation of suitable habitat, and capture and relocation efforts; therefore, the Service is authorizing take incidental to the proposed action as: (1) the injury and mortality of one adult or juvenile California red-legged frog; and (2) the capture, harm and harassment of all California red-legged frogs within the described action area associated with the defined Saratoga Creek Bridge widening action area.

Upon implementation of the following *Reasonable and Prudent Measures*, take of the California red-legged frog, within the action area in proportion to the amount and type of take outlined above will become exempt from the prohibitions described under section 9 of the Act. No other forms of take are exempted under this opinion.

Effect of the Take

The Service has determined that this level of anticipated take for the California red-legged frog is not likely to jeopardize the continued existence of the species.

Reasonable and Prudent Measure

The Service has determined that the following reasonable and prudent measure is necessary and appropriate to minimize the effect of the action on the California red-legged frog. Caltrans will be responsible for the implementation and compliance with this measure:

1. Minimize the adverse effects to the California red-legged frog and its habitat in the action area by implementing the proposed project, including the conservation measures as described, with the following terms and conditions.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the Act, Caltrans must comply with the following terms and conditions, which implement the reasonable and prudent measure described above. These terms and conditions are nondiscretionary.

1. The following *Terms and Conditions* implement *Reasonable and Prudent Measure* one (1):

    a. Caltrans shall include language in their contracts that expressly requires contractors and subcontractors to work within the boundaries of the project footprint identified in this BO, including vehicle parking, staging, laydown areas, and access.

    b. Each California red-legged frog encounter shall be treated on a case-by-case basis in coordination with the Service but general guidance is as follows: (1) leave the non-injured animal if it is not in danger or (2) move the frog to a nearby location if it is in danger.

    These two options are further described as follows:

    1) When a California red-legged frog is encountered in the action area the first priority is to stop all activities in the surrounding area that have the potential to result in the harm, harassment, injury, or death of the individual. Then the biologist needs to assess the situation in order to select a course of action that will minimize adverse effects to the individual. Contact the Service once the site is secure. The contacts for this situation are Ryan Olah (*ryan_olah@fws.gov*) or John Cleckler (*john_cleckler@fws.gov*). They can also be reached at (916) 414-6600. If you get voicemail messages for these contacts then contact John Cleckler on his cell phone at (916) 712-6784. Contact the Service prior to the start of construction to confirm the status of this contact information.

    The first priority is to avoid contact with the animal and allow it to move out of the action area and hazardous situation on its own to a safe location. The animal should not be picked up and moved because it is not moving fast enough or it is inconvenient for the construction schedule. This guidance only applies to situations where a California red-legged frog is encountered on the move during

conditions that make their upland travel feasible. This does not apply to animals that are uncovered or otherwise exposed or in areas where there is not sufficient adjacent habitat to support the life history of the California red-legged frog should they move outside the construction footprint.

Avoidance is the preferred option if the animal is not moving and is using aquatic habitat or is within some sort of burrow or other refugia. The area should be well marked for avoidance by construction and a Service-approved biologist should be assigned to the area when work is taking place nearby.

2) The animal should be captured and moved when it is the only option to prevent its death or injury.

If appropriate habitat is located immediately adjacent to the capture location then the preferred option is short distance relocation to that habitat. This must be coordinated with the Service but the general guidance is the frog should not be moved outside of the area it would have traveled on its own. Under no circumstances should a frog be relocated to another property without the owner's written permission. It is Caltrans' responsibility to arrange for that permission.

The release must be coordinated with the Service and will depend on where the individual was found and the opportunities for nearby release. In most situations the release location is likely to be into the mouth of a small burrow or other suitable refugia and in certain circumstances pools without non-native predators may be suitable.

Only Service-approved biologists for the project can capture California red-legged frogs. Nets or bare hands may be used to capture California red-legged frogs. Soaps, oils, creams, lotions, repellents, or solvents of any sort cannot be used on hands within 2 hours before and during periods when they are capturing and relocating California red-legged frogs. To avoid transferring disease or pathogens between sites during the course of surveys or handling of amphibians, Service-approved biologists must use the following guidance for disinfecting equipment and clothing. These recommendations are adapted from the *Declining Amphibian Population Task Force's Code* (http://www.open.ac.uk/daptf/).

i. All dirt and debris, including mud, snails, plant material (including fruits and seeds), and algae, must be removed from nets, traps, boots, vehicle tires and all other surfaces that have come into contact with water and/or an amphibian. Cleaned items should be rinsed with fresh water before leaving each site.

ii. Boots, nets, traps, etc., must then be scrubbed with either a 70 percent ethanol solution, a bleach solution (0.5 to 1.0 cup of bleach to 1.0 gallon of water), QUAT 128 (quaternary ammonium, use 1:60 dilution), or a 6 percent sodium hypochlorite 3 solution and rinsed clean with water between sites. Avoid cleaning equipment in the immediate vicinity of a pond or wetland. All traces of the disinfectant must be removed before entering the next aquatic habitat.

iii. Used cleaning materials (liquids, etc.) must be disposed of safely, and if necessary, taken back to the lab for proper disposal.

iv. Service-approved biologists must limit the duration of handling and captivity. While in captivity, California red-legged frogs shall be kept in a cool, dark, moist, aerated environment, such as a clean and disinfected bucket or plastic container with a damp sponge. Containers used for holding or transporting should not contain any standing water.

Reporting Requirements
In order to monitor whether the amount or extent of incidental take anticipated from implementation of the project is approached or exceeded, Caltrans shall adhere to the following reporting requirements. Should this anticipated amount or extent of incidental take be exceeded, Caltrans must reinitiate formal consultation as per 50 CFR 402.16.

1. The Service must be notified within one (1) working day of the finding of any injured or dead listed species or any unanticipated damage to its habitat associated with the proposed project. Notification will be made to the Coast-Bay Division Chief of the Endangered Species Program at the Sacramento Fish and Wildlife Office at (916) 414-6600, and must include the date, time, and precise location of the individual/incident clearly indicated on a U.S. Geological Survey 7.5-minute quadrangle or other maps at a finer scale, as requested by the Service, and any other pertinent information. When an injured or dead individual of the listed species is found, Caltrans shall follow the steps outlined in the following *Disposition of Individuals Taken* section.

2. Sightings of any listed or sensitive animal species should be reported to the CNDDB (http://www.dfg.ca.gov/biogeodata/cnddb/).

Disposition of Individuals Taken
Injured listed species must be cared for by a licensed veterinarian or other qualified person(s), such as the Service-approved biologist. Dead individuals must be sealed in a resealable plastic bag containing a paper with the date and time when the animal was found, the location where it was found, and the name of the person who found it, and the bag containing the specimen frozen in a freezer located in a secure site, until instructions are received from the Service regarding the disposition of the dead specimen. The Service contact persons are the Coast-Bay Division Chief of the Endangered Species Program at the Sacramento Fish and Wildlife Office at (916) 414-6600.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. The Service recommends the following actions:

1. Caltrans District 4 should work with the Service to develop a conservation strategy that would identify the current safe passage potential along Bay Area highways and the areas where safe passage for wildlife could be enhanced or established.

2. Caltrans should assist the Service in implementing recovery actions identified in the *Recovery Plan for the California Red-legged Frog* (Service 2002).

3. Caltrans should consider participating in the planning for a regional habitat conservation plan for the California red-legged frog, other listed species, and sensitive species.

4. Caltrans should consider establishing functioning preservation and creation conservation banking systems to further the conservation of the California red-legged frog. Such banking systems also could possibly be utilized for other required mitigation (i.e., seasonal wetlands, riparian habitats, etc.) where appropriate. Efforts should be made to preserve habitat along roadways in association with wildlife crossings.

5. Roadways can constitute a major barrier to critical wildlife movement. Therefore, Caltrans should incorporate culverts, tunnels, or bridges on highways and other roadways that allow safe passage by the California red-legged frog, other listed animals, and wildlife. Photographs, plans, and other information should be included in the BAs if "wildlife friendly" crossings are incorporated into projects. Efforts should be made to establish upland culverts designed specifically for wildlife movement rather than accommodations for hydrology. Transportation agencies should also acknowledge the value of enhancing human safety by providing safe passage for wildlife in their early project design.

In order for the Service to be kept informed of actions minimizing or avoiding adverse effects or benefiting listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

REINITIATION--CLOSING STATEMENT

This concludes consultation on the SR 85 Express Lanes Project. As provided in 50 CFR § 402.16, reinitiation of consultation is required where discretionary Federal agency involvement or control over the action has been maintained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this letter, including work outside of the project footprint analyzed in this letter and including vehicle parking, staging, lay down areas, and access roads; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this letter including use of rodenticides or herbicides; relocation of utilities; and use of vehicle parking, staging, lay down areas, and access roads; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any additional take will not be exempt from the prohibitions of section 9 of the Act, pending reinitiation.

If you have questions concerning this letter, please contact John Cleckler, Caltrans Liaison (*john_cleckler@fws.gov*) or Ryan Olah, Coast-Bay Division Chief (*ryan_olah@fws.gov*), at the letterhead address, (916) 414-6600, or by e-mail.

Sincerely,

Cay C. Goude
Assistant Field Supervisor

cc:
Melissa Escaron, California Department of Fish and Wildlife, Napa, California
Frances Malamud-Roam and Kim Mattson, Caltrans District 4, Oakland, California

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FHWA Conformity Determination

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U.S. Department of Transportation
Federal Highway Administration

Federal Highway Administration
California Division

650 Capitol Mall, Suite 4-100
Sacramento, CA 95814
(916) 498-5001
(916) 498-5008 (fax)

April 14, 2015

In Reply Refer To:
HDA-CA

Mr. Bijan Sartipi
District Director California Department of Transportation,
District 4
P.O. Box 23660, Oakland, CA 94623-0660

Attention: Ray Boyer

SUBJECT: Project Level Conformity Determination for the SR 85 Express Lane Project (SCL090030)

Dear Mr. Sartipi:

On March 10, 2015, the California Department of Transportation (Caltrans) submitted to the Federal Highway Administration (FHWA) a complete request for a project level conformity determination for the SR 85 Express Lane Project. The project is in an area that is designated Non-Attainment or Maintenance for Carbon Monoxide (CO), Ozone and Particulate Matter (PM 2.5).

The project level conformity analysis submitted by Caltrans indicates that the project-level transportation conformity requirements of 40 CFR Part 93 have been met. The project is included in the Metropolitan Transportation Commission's (MTC) current Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP), as amended. The design concept and scope of the preferred alternative have not changed significantly from those assumed in the regional emissions analysis.

As required by 40 CFR 93.116 and 93.123, the localized PM analyses are included in the documentation. The analyses demonstrate that the project will not create any new violations of the standards or increase the severity or number of existing violations.

Based on the information provided, FHWA finds that the SR 85 Express Lane project conforms with the State Implementation Plan (SIP) in accordance with 40 CFR Part 93.

If you have any questions pertaining to this conformity finding, please contact Joseph Vaughn at (916) 498-5346 or by email at Joseph.Vaughn@dot.gov.

Sincerely,

For: Vincent P. Mammano
Division Administrator

Appendix D Title VI Policy Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
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March 2013

NON-DISCRIMINATION
POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, please visit the following web page: http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, 1823 14th Street, MS-79, Sacramento, CA 95811. Telephone: (916) 324-0449, TTY: 711, or via Fax: (916) 324-1949.

MALCOLM DOUGHERTY
Director

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Appendix E Environmental Commitment Record

Table E-1 Summary of Minimization and/or Mitigation Measures

Minimization and/or Mitigation Measure	Page Reference in IS/EA	Responsible Party	Timing
Cultural Resources			
Designate all previously determined eligible and unevaluated sites as ESAs for the duration of the project in accordance with the requirements set forth in the *Environmentally Sensitive Area Action Plan* (URS 2013h). The requirements include conducting a preconstruction meeting with construction personnel to ensure that ESAs are properly understood, and coordinating/monitoring ESA installation by the contractor. In addition, an archaeologist will conduct field reviews of the ESAs to ensure that they remain intact and are not compromised.	2-53	Department, VTA, and Construction Contractor	Final design, construction
Limit all construction to the defined project area. ESAs adjacent to the project area will be identified on contract plans and discussed in the Special Provisions. ESA provisions may include, but are not limited to, the use of temporary orange fencing to delineate the proposed limit of work in areas adjacent to sensitive resources, or to delineate and exclude sensitive resources from potential construction impacts. Contractor encroachment into ESAs will be prohibited (including the staging/operation of heavy equipment or casting of excavation materials). ESA provisions will be implemented as a first order of work and remain in place until all construction is completed.	2-53	VTA, Resident Engineer, Construction Contractor	Final design, construction
If cultural materials are discovered during construction, divert all earth-moving activity within and around the immediate discovery area until a qualified archaeologist can assess the nature and significance of the find.	2-53	VTA, Resident Engineer, Construction Contractor	Construction
Contact the County Coroner if human remains are discovered and stop disturbances and activities in any area or nearby area suspected to overlie remains. Follow provisions of California Public Resources Code Section 5097.98 as applicable.	2-53	VTA, Resident Engineer, Construction Contractor	Construction
Water Quality and Storm Water Runoff			
Initiate early consultation with the Department's Branch of Water Pollution Control regarding the handling and disposal of this groundwater encountered during construction.	2-68	VTA, Construction Contractor	Final design
Prepare a SWPPP that would include storm water BMPs applicable to construction of the proposed project. The SWPPP must also comply with the goals and restrictions identified in the San Francisco RWQCB's Basin Plan. Standard Special Provision (SSP) 07-345 will be included in the PS&E to address the preparation of the SWPPP document and the implementation of the SWPPP during construction.	2-68	VTA, Construction Contractor	Final design
Implement short-term (construction) and long-term (permanent) BMPs outlined in the statewide Department SWMP and in IS/EA Section 2.2.2.4.	2-68	VTA, Construction Contractor	Final design, construction

Table E-1 Summary of Minimization and/or Mitigation Measures, continued

Minimization and/or Mitigation Measure	Page Reference in IS/EA	Responsible Party	Timing
Incorporate BMPs to maintain or restore pre-project hydrology in accordance with hydromodification requirements per the SCVURPPP. For the outfalls susceptible to hydromodification impacts, evaluate increase in impervious surface by using computer modeling and by evaluating a watershed for cumulative effects from impervious surface and pollutant runoff.	2-70	VTA, Resident Engineer	Project design
Geology and Soils			
Design and construct project elements to meet seismic design requirements for ground shaking and ground motions, as determined for the project vicinity and site conditions (liquefaction, settlement, and corrosion).	2-75	VTA, Construction Contractor	Final design
Perform additional geotechnical subsurface and design investigations during final project design and engineering phase, including site-specific evaluation of subsurface conditions (such as potential for liquefaction and lateral spreading) at the location of proposed foundation features.	2-75	VTA	Final design
Paleontology			
Include Caltrans Standard Specification 14-7.02 in the construction specifications.	2-77	VTA	Final design
Include a specification in the construction contract stating that paleontological monitoring will occur in accordance with the Paleontological Mitigation Plan.	2-77	VTA	Preconstruction
Update and finalize the Paleontological Mitigation Plan for implementation during construction.	2-77	VTA	Final design
Hazardous Waste and Materials			
Further investigation of the sites identified in IS/EA Table 2.2.5-1 is recommended due to the potential presence of petroleum hydrocarbons, solvents, and ADL in soil and/or groundwater.	2-82	VTA	Final design
For project excavations that extend to groundwater, conduct groundwater sampling, analysis, and characterization before construction commences. Determine treatment and disposal options for extracted groundwater prior to any dewatering of excavations.	2-82	VTA	Final design
If soil excavation is planned near properties where petroleum hydrocarbon-impacted soils may be present, sample, test, and characterize the soil.	2-83	VTA	Final design
If soil excavation is planned near properties where chlorinated compounds may be present, sample, test, and characterize the soil and groundwater for chlorinated compounds.	2-83	VTA, Construction Contractor	Final design
Where surface soils will be excavated, sample and test for lead, pesticides, VOCs, and PCBs.	2-83	VTA, Construction Contractor	Final design
Perform soil sampling for naturally occurring asbestos at several locations throughout the project site from deeper soil samples associated with the placement of signs.	2-83	VTA, Construction Contractor	Final design
Soil sampling for ADL is recommended at interchanges only along SR 85 between I-280 and US 101 in southern San Jose, and where surface soils will be excavated elsewhere along US 101 and SR 85.	2-83	VTA, Construction Contractor	Final design

Table E-1 Summary of Minimization and/or Mitigation Measures, continued

Minimization and/or Mitigation Measure	Page Reference in IS/EA	Responsible Party	Timing
Properly characterize and dispose of contaminated soil, groundwater, and other hazardous materials at an appropriate facility per applicable regulations.	2-83	VTA, Construction Contractor	Final design (testing), construction (disposal)
Air Quality			
Ensure that the construction contractor complies with the Department's Special Provisions and Standard Specifications in Section 14 (2010).	2-94	VTA, Department	Final design, construction
Noise			
Limit pile driving activities to daytime hours only.	2-125	VTA, Resident Engineer, Construction Contractor	Final design, construction
Equip all internal combustion engine driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.	2-125	VTA, Resident Engineer, Construction Contractor	Final design, construction
Prohibit unnecessary idling of internal combustion engines within 100 feet of residences.	2-125	VTA, Resident Engineer, Construction Contractor	Final design, construction
Use "quiet" air compressors and other "quiet" equipment where such technology exists.	2-125	VTA, Resident Engineer, Construction Contractor	Final design, construction
Avoid staging of construction equipment within 200 feet of residences and locate all stationary noise-generating construction equipment, such as air compressors, portable power generators, or self-powered lighting systems as far practical from noise sensitive residences.	2-125	VTA, Resident Engineer, Construction Contractor	Final design, construction
Require all construction equipment to conform to Section 14-8.02, Noise Control, of the latest Department Standard Specifications.	2-125	VTA, Resident Engineer, Construction Contractor	Final design, construction
Prepare a detailed construction plan identifying the schedule for major noise-generating construction activities and distribute this plan to adjacent noise-sensitive receptors. The construction plan should also list the construction noise reduction measures identified in this section.	2-125	Construction contractor	Final design, construction
Natural Communities			
Vegetation and trees removed by construction operations within the project limits will be replaced according to Caltrans policy. Appropriate native species will be used to the maximum extent possible, and trees, shrubs, and groundcover will be selected for drought tolerance and disease resistance.	2-130	Department Landscape Design	Final design. Post-construction
Remove trees before the start of the nesting season for raptors and migratory birds (February 15) to avoid impacts to birds that are protected under the MBTA.	2-130	VTA, Construction Contractor	Preconstruction
Preserve vegetation where no construction is planned.	2-130	VTA, Construction Contractor	Preconstruction, Construction

Table E-1 Summary of Minimization and/or Mitigation Measures, continued

Minimization and/or Mitigation Measure	Page Reference in IS/EA	Responsible Party	Timing
Environmentally Sensitive Areas, such as wetlands, waters, and trees will be delineated for avoidance with orange fencing. The fencing will be routinely monitored and maintained and will not be removed until ground activities in the proximity have been completed. Fence locations will be identified on contract plans and discussed in the Special Provisions. Project plans will include the installation specifications.	Appendix C, Biological Opinion, 10	VTA, Resident Engineer, Construction Contractor	Final design, Preconstruction, Construction
Disturbed areas and staging areas will be cleaned up and recontoured to original grade. Permanent erosion control, including soil stabilization measures such as hydroseeding and coir netting will be applied to all temporarily affected areas within the project footprint to minimize erosion after construction. All construction-related materials, including exclusion and project boundary fencing, will be removed after construction, site clean-up, and restoration activities are complete.	Appendix C, Biological Opinion, 10	VTA, Resident Engineer, Construction Contractor	Construction, Post construction
Place an approximate 5-foot buffer around serpentine grasslands using ESA fencing prior to the start of construction. Conduct preconstruction surveys for serpentine grasslands before construction begins on US 101 south of the SR 85/US 101 interchange in San Jose to identify where ESA fencing should be placed.	2-131	VTA, Construction Contractor	Preconstruction
Mark ordinary high water of San Tomas Aquino and Saratoga creeks with ESA fencing before construction, and prohibit contractor access during construction.	2-131	VTA, Construction Contractor	Preconstruction, Construction
Minimize impacts to riparian areas through payment of an in-lieu fee to the HCP/NCCP or implement other measures (mitigation/conservation banks, in-lieu fee programs, and permittee-responsible mitigation) in coordination with the RWQCB.	2-131	VTA	Final design
Wetlands and Other Waters of the United States			
Limit all construction to the defined project area. ESAs adjacent to the project area will be identified on contract plans and discussed in the Special Provisions. ESA provisions may include, but are not limited to, the use of temporary orange fencing to delineate the proposed limit of work in areas adjacent to sensitive resources, or to delineate and exclude sensitive resources from potential construction impacts. Contractor encroachment into ESAs will be prohibited (including the staging/operation of heavy equipment or casting of excavation materials). ESA provisions will be implemented as a first order of work and remain in place until all construction is completed.	2-136	VTA, Resident Engineer, Construction Contractor	Final design, construction
Develop and implement a SWPPP.	2-136	VTA, Resident Engineer, Construction Contractor	Final design
Fence off wetlands in the project area using ESA fencing. The fencing will be placed 5 feet away from each wetland feature.	2-136	VTA, Resident Engineer, Construction Contractor	Preconstruction

Table E-1 Summary of Minimization and/or Mitigation Measures, continued

Minimization and/or Mitigation Measure	Page Reference in IS/EA	Responsible Party	Timing
The boundaries of the Saratoga Creek Bridge construction area will be delineated with high-visibility construction fencing to prevent the encroachment of construction personnel and equipment beyond the described construction footprint. The fencing will be removed only when all construction equipment is removed from the job site.	Appendix C, Biological Opinion, 16	VTA, Resident Engineer, Construction Contractor	Preconstruction
Cutting of trees and other woody vegetation within the Saratoga Creek riparian corridor will be limited to between June 15 and October 15.	2-135	VTA, Resident Engineer, Construction Contractor	Preconstruction, Construction
Use appropriate erosion control measures to reduce siltation and runoff of contaminants into wetlands and adjacent, ponds, streams, or riparian woodland/scrub. The contractor will not be allowed to stockpile brush, loose soils, or other debris material on stream banks. Only native plant species will be used in erosion control or revegetation seed mix. Any hydroseed mulch used for revegetation must also be certified weed-free. Dry-farmed straw will not be used, and certified weed-free straw will be required where erosion control straw is to be used. Filter fences and mesh will be of material that will not entrap reptiles and amphibians. Erosion-control measures will be placed between a water or wetland and the outer edge of the project site.	2-136	VTA, Construction Contractor	Final design, preconstruction, construction
Clean all off-road construction equipment of potential noxious weed sources (mud, vegetation) before entry into the work area. Equipment will be considered free of soil, seeds, and other such debris when a visual inspection does not disclose such material. Disassembly of equipment components or specialized inspection tools is not required.	2-136	Construction Contractor	Construction
Vehicles and equipment will be parked on pavement, existing roads, or specified staging areas when not in use.	2-136	Construction Contractor	Construction
Promptly and properly remove trash from the site.	2-136	Construction Contractor	Construction
Do not refuel construction or maintenance vehicles within 200 feet of wetlands and ponds unless a bermed and lined refueling area is constructed and hazardous material absorbent pads are available in the event of a spill.	2-136	Construction Contractor	Construction
Place equipment storage, fueling, and staging areas in disturbed areas or on non-sensitive nonnative grassland land cover types, when these sites are available, to minimize risk of direct discharge into riparian areas or other sensitive land cover types.	2-137	Construction Contractor	Construction
On US 101 south of the SR 85/US 101 interchange in San Jose, return all temporarily disturbed areas, such as staging areas, to pre-project or ecologically improved conditions within 1 year of the completing construction or the impact will be considered permanent. Alternatively, if active restoration is used to restore the site within 5 years and the restoration is successful, the impact will be considered temporary.	2-137	VTA, Resident Engineer, Construction Contractor	Construction, post construction

Table E-1 Summary of Minimization and/or Mitigation Measures, continued

Minimization and/or Mitigation Measure	Page Reference in IS/EA	Responsible Party	Timing
All areas of temporary disturbance associated with the Saratoga Creek Bridge widening will be returned to pre-project or ecologically improved conditions within one year of the initial ground breaking at this location.	Appendix C, Biological Opinion, 16	VTA, Resident Engineer, Construction Contractor	Post construction
Caltrans will submit post-construction compliance reports prepared by the USFWS-approved biologist to the USFWS within 60 calendar days following completion of the Saratoga Creek Bridge construction or within 60 calendar days of any break in construction activity at Saratoga Creek Bridge lasting more than 60 calendar days.	Appendix C, Biological Opinion, 17	VTA, Resident Engineer	Post construction
Animal Species			
If vegetation clearing and grubbing occurs between February 15 and August 31, have a qualified biologist(s) survey for nesting birds within the area(s) to be disturbed including a perimeter buffer of 50 feet for passerines and 300 feet for raptors before vegetation clearing activities begin. All nest avoidance requirements of the Migratory Bird Treaty Act and California Fish and Game Code will be observed. If an active nest is found, CDFW will be consulted to determine the appropriate buffer area to be established around the nesting site and the type of buffer to be used, which typically is ESA fencing. If establishment of a buffer is not feasible, CDFW will be contacted for further avoidance and minimization guidelines.	2-142	VTA	Preconstruction
Have a qualified biologist conduct weekly monitoring to evaluate nests for potential disturbances associated with construction activities. Construction within the buffer is prohibited until the qualified biologist determines the nest is no longer active.	2-143	VTA, Resident Engineer, Construction Contractor	Construction
If an active nest is found after construction begins, stop construction activities in the vicinity of the nest until a qualified biologist has evaluated the nest and established the appropriate buffer around the nest. If establishment of the buffer is not feasible, contact CDFW for further avoidance and minimization guidelines.	2-143	VTA, Resident Engineer, Construction Contractor	Construction
During the nesting season (February 15 through August 31), have a qualified biologist conduct preconstruction surveys for nesting migratory birds in the project area no more than three days prior to the start of ground disturbing activities in the BSA. If preconstruction surveys indicate the presence of any migratory bird nests where activities would directly result in bird injury or death, a buffer zone of 50 feet will be placed around the nest.	2-143	VTA	Preconstruction

Table E-1 Summary of Minimization and/or Mitigation Measures, continued

Minimization and/or Mitigation Measure	Page Reference in IS/EA	Responsible Party	Timing
During the nesting season (February 15 through August 31), establish buffers around active migratory bird nests where project activities would directly result in bird injury or death. The size of the buffer may vary for different species and will be determined in coordination with CDFW. A qualified biologist will delineate the buffer using ESA fencing, pin flags, and/or yellow caution tape. The buffer zone will be maintained around all active nest sites until the young have fledged and are foraging independently. In the event that an active nest is found after the completion of preconstruction surveys and after construction begins, all construction activities within a 50-foot radius will be stopped until a qualified biologist has evaluated the nest and erected the appropriate buffer around it.	2-143	VTA	Construction
If an active nest is found in an area after construction begins, construction activities in the vicinity of the nest will stop until a qualified biologist has evaluated the nest and established the appropriate buffer around the nest. If establishment of the buffer is not feasible, CDFW will be contacted for further avoidance and minimization guidelines.	2-143	VTA	Preconstruction
No more than three days prior to the start of ground disturbing activities, have a qualified biologist survey the trees and man-made structures in the BSA for evidence of bat roosts (e.g., bat guano). If bat roosts are located during preconstruction surveys, the roosts will be flagged and avoided during construction.	2-143	VTA	Preconstruction
Threatened and Endangered Species			
In addition to the measures below, implement any subsequent measures and modifications from USFWS Biological Opinion 08ESMF00-2014-F-0197-1.	Appendix C	VTA, Resident Engineer, Construction Contractor	Final design, construction
Limit construction to the dry season (June 15 to October 15) in all active ground disturbance and construction areas along US 101 south of the SR 85/US 101 interchange in San Jose.	2-150	VTA, Resident Engineer, Construction Contractor	Final design, construction
At Saratoga Creek, Caltrans does not anticipate the need for nighttime work. If nighttime work is needed to avoid safety issues or to complete work within the allotted construction season, all lighting will be directed towards the construction work taking place.	2-151	VTA, Construction Contractor	Post construction

Table E-1 Summary of Minimization and/or Mitigation Measures, continued

Minimization and/or Mitigation Measure	Page Reference in IS/EA	Responsible Party	Timing
Prior to any construction on US 101 south of the SR 85/US 101 interchange in San Jose and at the Saratoga Creek Bridge, a USFWS-approved biologist will conduct an environmental education program for all construction personnel including contractors and subcontractors. The training will include, at a minimum, a description of CRLF and their habitats; associated habitats within the action area south of the SR 85/US 101 interchange in San Jose and at the Saratoga Creek Bridge; an explanation of the status of these species and protection under the FESA; the measures to be implemented; communication and work stoppage procedures in case a listed species is observed within the action area south of the SR 85/US 101 interchange in San Jose and at the Saratoga Creek Bridge; and an explanation of the ESAs and wildlife exclusion fencing (WEF) and the importance of maintaining these structures.	2-151	VTA, Resident Engineer, Construction Contractor	Final design, construction
Only USFWS-approved biological monitors will implement the monitoring duties outlined in the BO including delivery of the Worker Environmental Awareness Training Program.	2-151	VTA, Resident Engineer, Construction Contractor	Final design, construction
Through communication with the Resident Engineer or their designee, the biologist may stop work if deemed necessary for any reason to protect CRLF and will advise the Resident Engineer or designee on how to proceed accordingly. If a CRLF or CTS is found, work will be halted and will not resume until the species has exited the work area on its own. CRLF and CTS will not be handled without authorization by the USFWS and CDFW.	2-151	VTA, Construction Contractor	Preconstruction
No more than two days prior to the start of ground disturbing activities on US 101 south of the SR 85/US 101 interchange in San Jose, focused preconstruction surveys for CRLF will be completed by a USFWS-approved biologist in all suitable upland dispersal habitat areas. If CRLF are found during focused preconstruction surveys, the USFWS will be contacted within one working day, and work activities along US 101 in suitable upland dispersal habitat will be suspended until the CRLF has exited the area on its own. CRLF and CTS will not be handled without authorization by the USFWS and CDFW.	2-151	VTA, Construction Contractor	Preconstruction
At Saratoga Creek, no more than 20 calendar days prior to any ground disturbance for the bridge widening, preconstruction surveys will be conducted by a USFWS-approved biologist for the CRLF throughout the bridge widening work area.	2-151	VTA, Construction Contractor	Preconstruction
The USFWS-approved biologist will perform a CRLF clearance survey immediately prior to the initial ground disturbance at Saratoga Creek. In the same area, the USWS-approved biologist will conduct clearance surveys at the beginning of each day within or adjacent to suitable listed species habitat and regularly throughout the workday.	2-151	VTA, Construction Contractor	Preconstruction

Table E-1 Summary of Minimization and/or Mitigation Measures, continued

Minimization and/or Mitigation Measure	Page Reference in IS/EA	Responsible Party	Timing
WEF will be installed around CRLF habitat prior to any construction during the dry season (June 15 through October 15), when CRLF are not actively dispersing or foraging. The WEF would be placed 10 feet from the edge of pavement along US 101, south of the SR 85/US 101 interchange in San Jose. The location, fencing materials, installation specifications, and monitoring and repair criteria will be submitted to the USFWS for approval prior to the start of the project. Caltrans will include the WEF specifications on the final project plans. Caltrans will include the WEF specifications including installation and maintenance criteria in the bid package special provisions. The WEF will remain in place until all project activities in the vicinity of suitable upland and dispersal habitat are completed. The WEF will be regularly inspected and fully maintained. Repairs to the WEF will be made within 24 hours of discovery. Upon completion of the project, the WEF will be completely removed and the area cleaned of debris and trash, and returned to natural conditions.	2-151	VTA, Resident Engineer, Construction Contractor	Construction
A USFWS-approved biologist will be present during all vegetation clearing and ground-disturbing activities for the Saratoga Creek Bridge work.	2-152	VTA, Resident Engineer, Construction Contractor	Construction
To prevent CRLF from becoming entangled or trapped in erosion control materials, plastic monofilament netting (erosion control matting) or similar material will not be used for erosion control. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.	2-152	VTA, Construction Contractor	Final design, construction
To prevent inadvertent entrapment of CRLF and other wildlife during construction, all excavated, steep-walled holes or trenches more than 1 foot deep will be covered at the close of each working day by plywood or similar materials. If it is not feasible to cover an excavation, one or more escape ramps constructed of earthen fill or wooden planks will be installed. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. If at any time a trapped animal is discovered, the USFWS-approved biologist will immediately remove and relocate it.	2-152	VTA, Construction Contractor	Construction
Rodenticides and herbicides will be utilized in such a manner to prevent primary or secondary poisoning of listed species, and depletion of prey populations on which they depend. All uses of such compounds will observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Pesticide Regulation, and other appropriate state and federal regulations, as well as additional project-related restrictions deemed necessary by the USFWS or the CDFW.	2-152	VTA, Construction Contractor	Construction
No firearms will be allowed in the BSA except for those carried by authorized security personnel, or local, state, or federal law enforcement officials.	2-152	VTA, Construction Contractor	Construction

Table E-1 Summary of Minimization and/or Mitigation Measures, continued

Minimization and/or Mitigation Measure	Page Reference in IS/EA	Responsible Party	Timing
No pets will be permitted in the BSA.	2-152	VTA, Construction Contractor	Construction
Before construction commences, conduct a preconstruction survey for serpentine grassland and the host plants to determine the presence and extent of the bay checkerspot butterfly's host plants (dwarf plantain and purple owl's clover) within the BSA south of the SR 85/US 101 interchange in San Jose. Serpentine grassland and host plants that are present in the limits of construction will be fenced off prior to construction using ESA fencing (including an approximate 5-foot buffer) to avoid any direct impacts to bay checkerspot butterfly. The preconstruction survey will be conducted during the host plants' blooming period (March through early May), when the plants are identifiable.	2-153	VTA, Construction Contractor	Preconstruction
To avoid impacting dispersing adult butterflies, construction activities will not occur during the flight season (March through early May)	2-153	VTA, Construction Contractor	Construction
During ground-disturbing construction activities, the construction contractor will implement dust control measures including regular watering of exposed soils to reduce the amount of dust and particulate matter in the air. The control measures will be consistent with Caltrans Standard Specifications, Section 14-9.01 (Air Pollution Control) and Section 14-9.02 (Dust Control).	2-153	VTA	Preconstruction
Conduct preconstruction surveys for Metcalf Canyon jewel-flower between April and July, before construction begins on US 101 south of the SR 85/US 101 interchange to identify where ESA fencing should be placed.	2-153	VTA, Construction Contractor	Construction
Fence off Metcalf Canyon jewel-flower plants that are present in the limits of construction prior to construction using ESA fencing (including an approximate 5-foot buffer).	2-153	VTA, Construction Contractor	Construction
Invasive Species			
Do not use species listed as noxious weeds in project landscaping and erosion control.	2-154	VTA, Construction Contractor	Construction
No disposal of soil and plant materials should be allowed from areas that support invasive species to areas dominated by native vegetation.	2-154	VTA, Resident Engineer, Construction Contractor	Construction
Resident Engineers should be educated on weed identification and the importance of controlling and preventing the spread of identified invasive nonnative species.	2-154	VTA	Construction
Gravel and/or fill material to be placed in relatively weed-free areas should come from weed-free sources. Certified weed-free imported materials (or rice straw in upland areas) will be used.	2-154	VTA, Construction Contractor	Construction

Appendix F List of Acronyms

AADT	Annual Average Daily Traffic
ABAG	Association of Bay Area Governments
ACS	American Community Survey
ADA	Americans with Disabilities Act
ADL	aerially deposited lead
APE	Area of Potential Effects
ARB	California Air Resources Board
ARPA	Archaeological Resources Protection Act of 1979
ASR	Archaeological Survey Report
BAAQMD	Bay Area Air Quality Management District
BATA	Bay Area Toll Authority
BCDC	Bay Conservation and Development Commission
BMP	Best Management Practice
BO	Biological Opinion
BSA	Biological Study Area
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CERFA	Community Environmental Response Facilitation Act of 1992
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CHP	California Highway Patrol
CHRIS	California Historical Resources Information System
CIDH	cast-in-drilled-hole
CNPS	California Native Plant Society
CNDDB	California Natural Diversity Database
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CPS	Central Processing System
CRHR	California Register of Historical Resources
CRLF	California red-legged frog
CTS	California tiger salamander
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
dbh	diameter at breast height
Department	California Department of Transportation
DMS	Dynamic Message Signs
DMV	Department of Motor Vehicles (California)
DNL	Day-Night Level

DPM	diesel particulate matter
DPS	distinct population segment
DSA	Disturbed Soil Area
DTSC	Department of Toxic Substances Control
EDR	Environmental Data Resources, Inc
EJ	Environmental Justice
EO	Executive Order
ESA	Environmentally Sensitive Area
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FIRMs	Flood Insurance Rate Maps
FONSI	Finding of No Significant Impact
FTA	Federal Transit Administration
GHG	greenhouse gas
Guidelines	Section 404(b)(1) Guidelines
H_2S	hydrogen sulfide
HCP	Habitat Conservation Plan
HCP/NCCP	Habitat Conservation Plan/Natural Communities Conservation Plan
HOT	high-occupancy toll
HOV	high-occupancy vehicle
HPSR	Historic Property Survey Report
I-280	Interstate 280
IPCC	Intergovernmental Panel on Climate Change
ISA	Initial Site Assessment
IS	Initial Study
IS/EA	Initial Study/Environmental Assessment
ITS	intelligent transportation systems
$L_{eq[h]}$	Equivalent Sound Level over one hour
LED	Light-emitting diode
LEDPA	least environmentally damaging practicable alternative
LOS	level of service
M	moment magnitude
MBTA	Migratory Bird Treaty Act
MEW	Middlefield, Ellis, Whisman
MLD	most likely descendent
mph	miles per hour
MS4	municipal separate storm sewer systems
MSAT	Mobile Source Air Toxics
MTC	Metropolitan Transportation Commission
NA	not applicable
NAAQS	National Ambient Air Quality Standards
NAC	noise abatement criteria
NAHC	Native American Heritage Commission
NB	northbound

ND	Negative Declaration
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act of 1966
NO_2	Nitrogen Dioxide
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NPL	national priorities list
NWIC	Northwest Information Center
O_3	ozone
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Act
OSTP	Office of Science and Technology Policy
PA	Programmatic Agreement
PCB	Polychlorinated biphenyls
PER	Paleontological Evaluation Report
PDT	Project Development Team
PG&E	Pacific Gas and Electric
PIR	Paleontological Identification Report
PM	post mile
$PM_{2.5}$	particulate matter less than 2.5 micrometers in diameter
PM_{10}	particulate matter less than 10 micrometers in diameter
PMP	Paleontological Mitigation Plan
PMR	Paleontological Mitigation Report
ppm	parts per million
Protocol	Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects
PS&E	Plans, Specifications and Estimates
PSR	Project Study Report
PRC	Public Resources Code
RCRA	Resource Conservation and Recovery Act of 1976
RCSC	Regional Customer Service Center
ROG	Reactive Organic Gases
RTP	regional transportation plan
RWQCB	Regional Water Quality Control Board
SB	southbound
SCL	Santa Clara
SCVURPP	Santa Clara Valley Urban Runoff Pollution Prevention Program
SCVWD	Santa Clara Valley Water District
SDC	seismic design criteria
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SOV	single-occupant vehicle
SO_2	sulfur dioxide
SR	State Route
SWPPP	Storm Water Pollution Prevention Plan

SWRCB	State Water Resources Control Board
SWMP	Statewide Storm Water Management Plan
TAC	Toxic Air Contaminant
TDM	Traffic Demand Alternative
TIP	Transportation Improvement Programs
TMDL	Total Maximum Daily Load
TMP	Transportation Management Plan
TNM	Traffic Noise Model
TOAR	Traffic Operations Analysis Report (URS and DKS 2013)
TOS	Traffic Operations Systems
TSCA	Toxic Substances Control Act
TSM	Traffic Systems Management
UCMP	University of California Museum of Paleontology
U.S.	United States
US 101	U.S. Highway 101
USACE	U.S. Army Corps of Engineers
USC	United States Code
U.S. EPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
USDOT	U.S. Department of Transportation
UST	underground storage tank
VMT	vehicle miles traveled
VOCs	volatile organic compounds
vph	vehicles per hour
VTA	Santa Clara Valley Transportation Authority
WDR	Waste Discharge
WPCP	Water Pollution Control Plan

Appendix G List of Technical Studies

Air Quality Impact Assessment (URS 2013l)

Archaeological Survey Report (URS 2013e)

Request for a Letter of Concurrence from the USFWS (URS 2013p)

Community Impact Assessment (URS 2012b)

Environmentally Sensitive Area Action Plan (URS 2013h)

Existing Conditions Traffic Operational Analysis (URS 2012a)

Extended Phase 1 Study (URS 2013g)

Historic Property Survey Report (URS 2013f)

Initial Site Assessment (URS 2011b)

Jurisdictional Delineation (URS 2013o)

Location Hydraulic Study (WRECO 2013a)

Mobile Source Air Toxics (URS 2013m)

Natural Environment Study (URS 2013d)

Noise Study Report (Illingworth and Rodkin 2012)

Noise Abatement Decision Report (URS 2012e)

Paleontological Evaluation Report and Mitigation Plan (URS 2012d)

Paleontological Identification Report (URS 2012c)

Preliminary Geotechnical Report (URS 2011a)

Storm Water Data Report (WRECO 2013c)

Supplement to the Final Initial Site Assessment (URS 2013k)

Supplement to the Noise Study Report and Noise Abatement Decision Report (URS 2013n)

Supplement to the Paleontological Evaluation Report and Mitigation Plan (URS 2013j)

Supplement to the Preliminary Geotechnical Report (URS 2013i)

Supplement to the Visual Impact Assessment (URS 2013c)

Traffic Operations Analysis Report (URS and DKS 2013)

Traffic Operations Analysis Report Addendum 1: Local Street Supplemental Analysis – Base Year Intersection Volumes (DKS 2014a)

Traffic Operations Analysis Report Addendum 2: Local Street Supplemental Analysis – Future Year Demand Forecasts (DKS 2014b)

Traffic Operations Analysis Report Addendum 3: Local Street Supplemental Analysis – Future Year Intersection Analysis Results (DKS 2015)

Visual Impact Assessment (URS 2013b)

Water Quality Study Report (WRECO 2013b)

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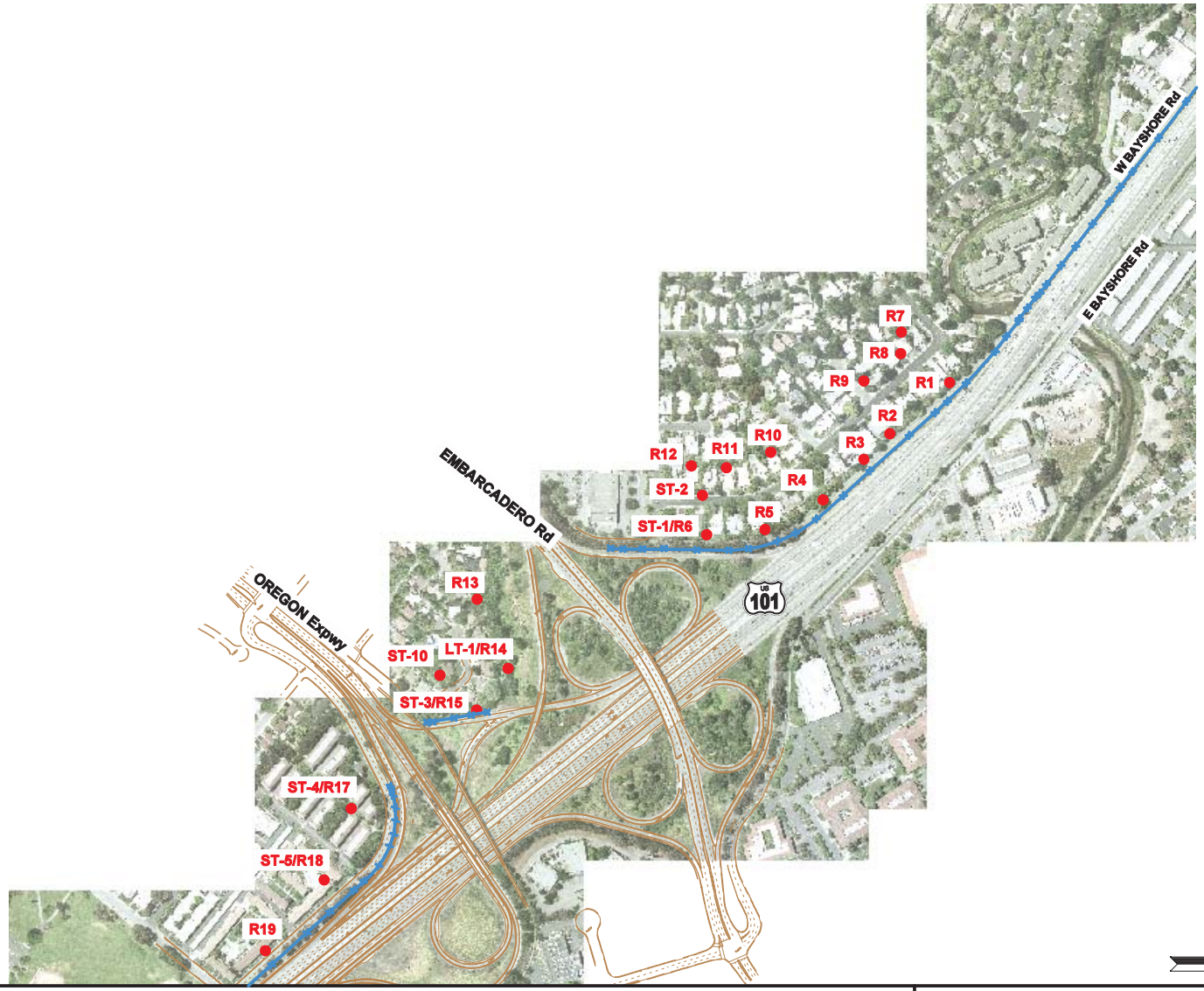

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- EXISTING BARRIER
- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

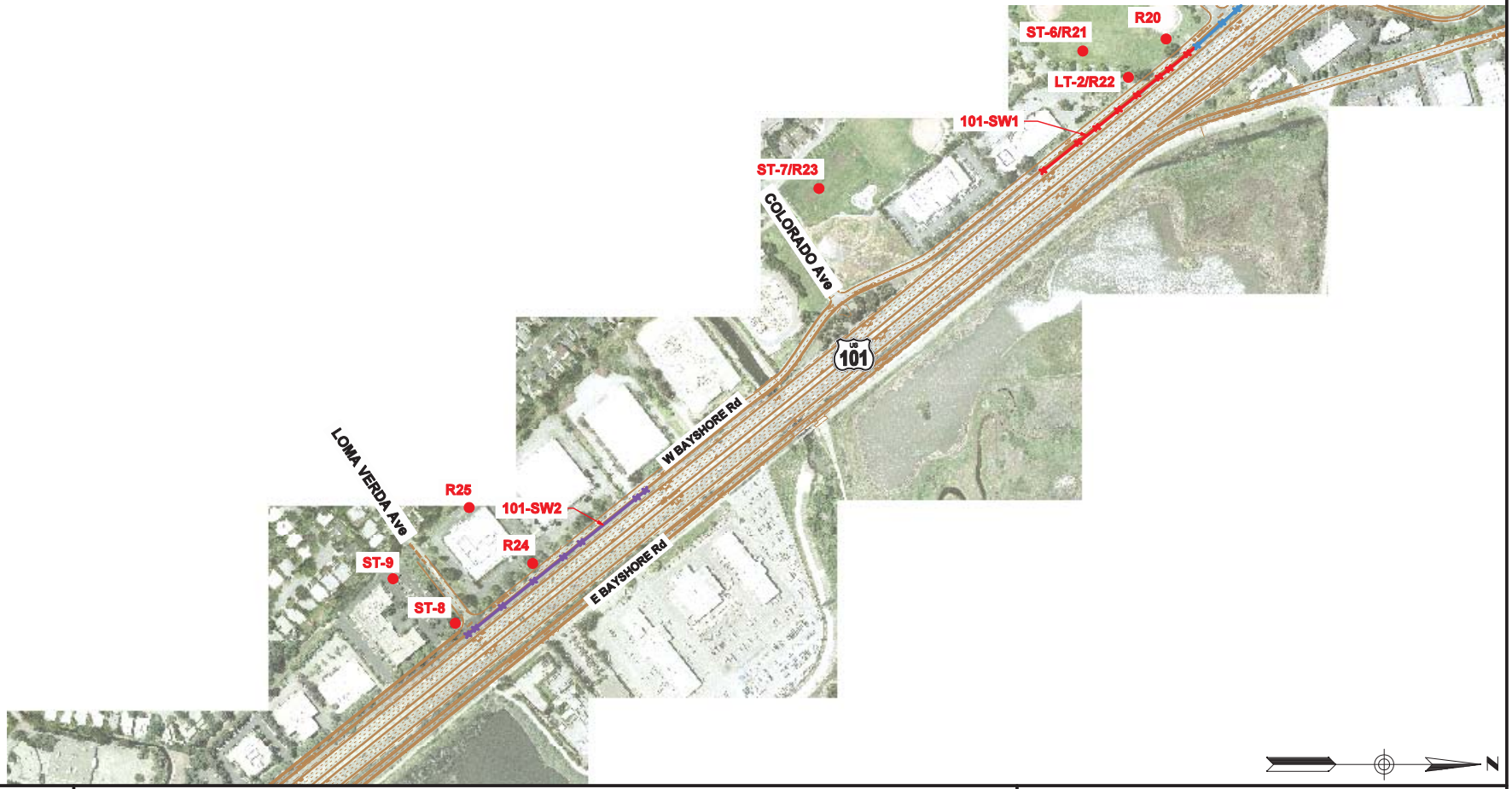
1: 400
FEET

0 FT | 400FT | 800FT | 1,600FT

6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION SR 85 EXPRESS LANES PROJECT

SHEET NO. 1 OF 5



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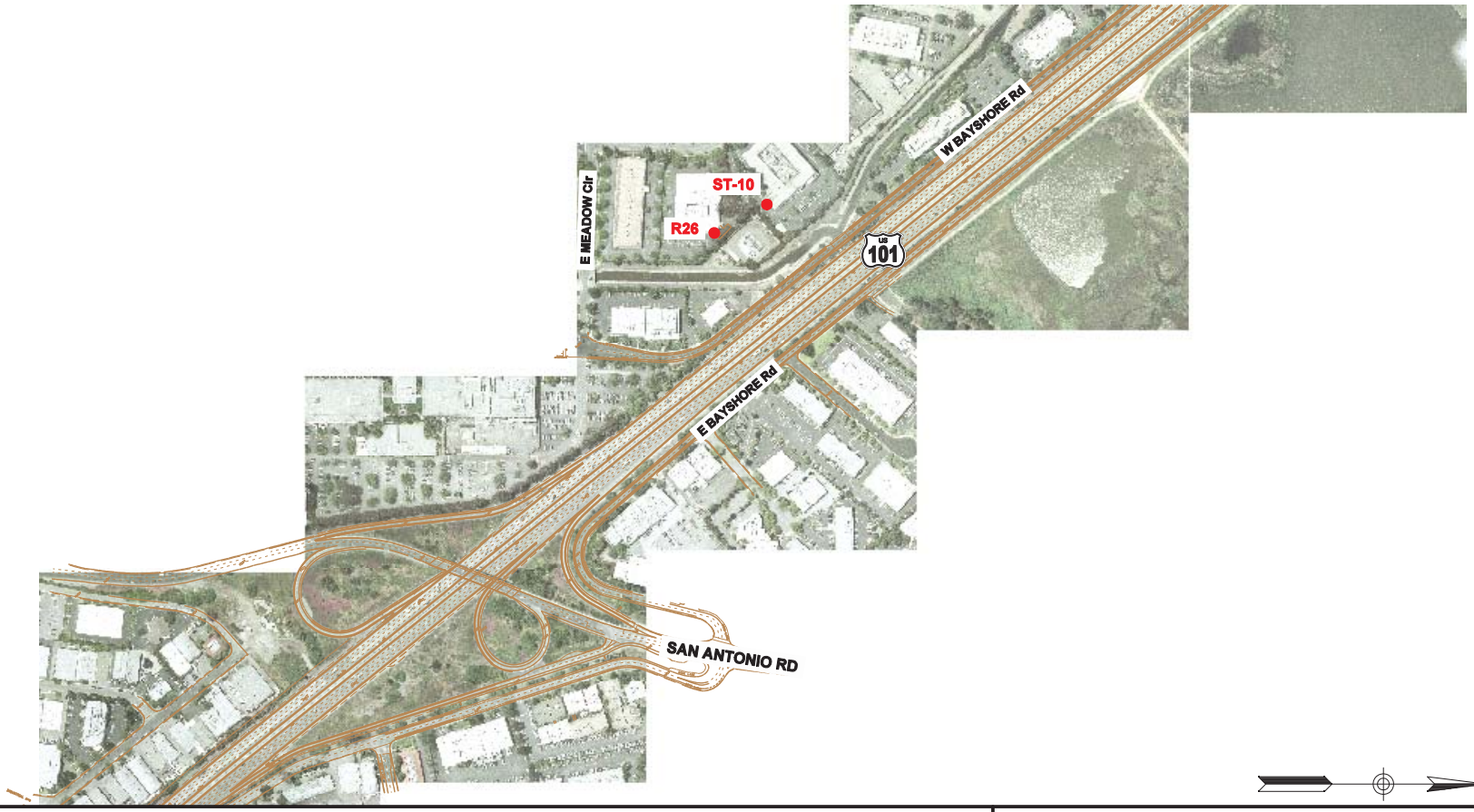
6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION
SR 85 EXPRESS LANES PROJECT

SHEET NO. 2 OF 5



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- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

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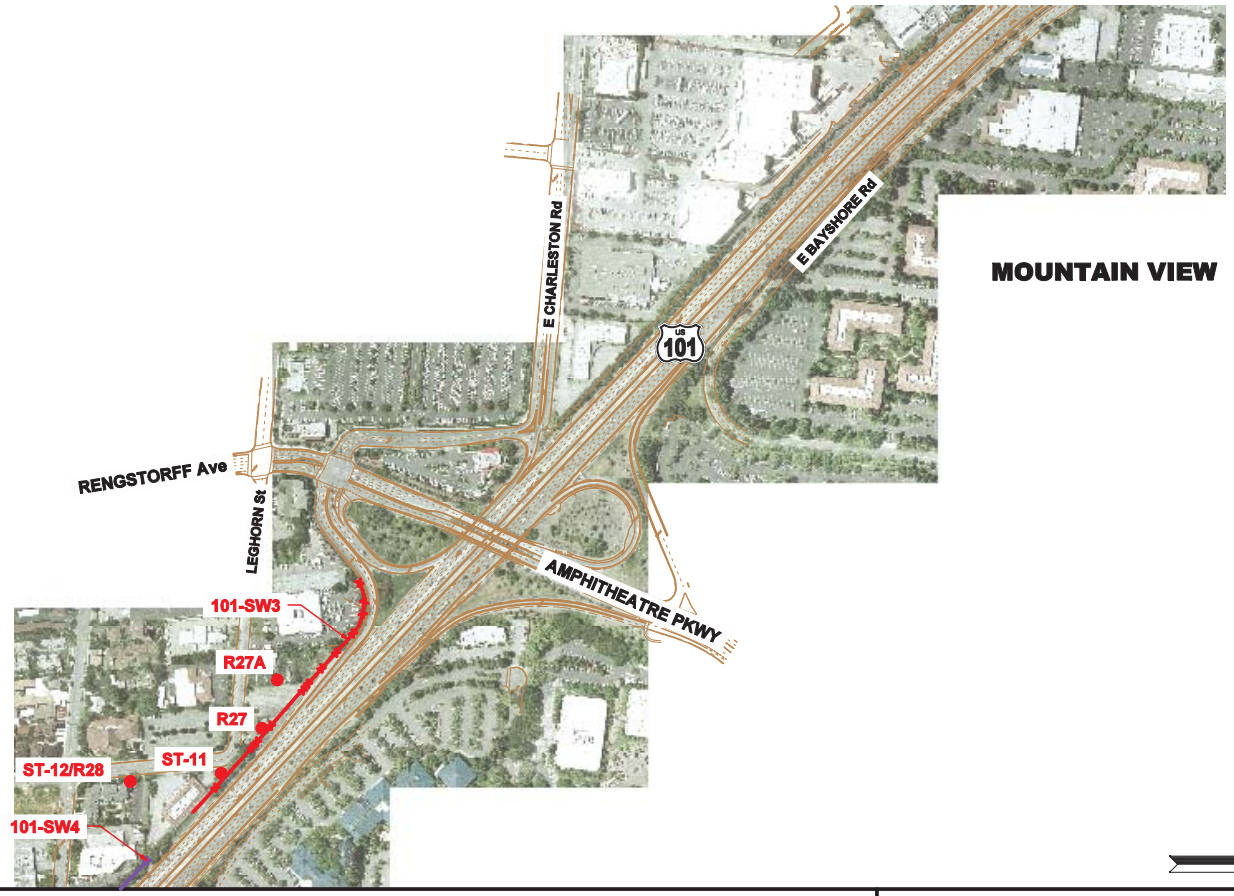
6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION SR 85 EXPRESS LANES PROJECT

SHEET NO. 3 OF 5



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LEGEND:

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- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

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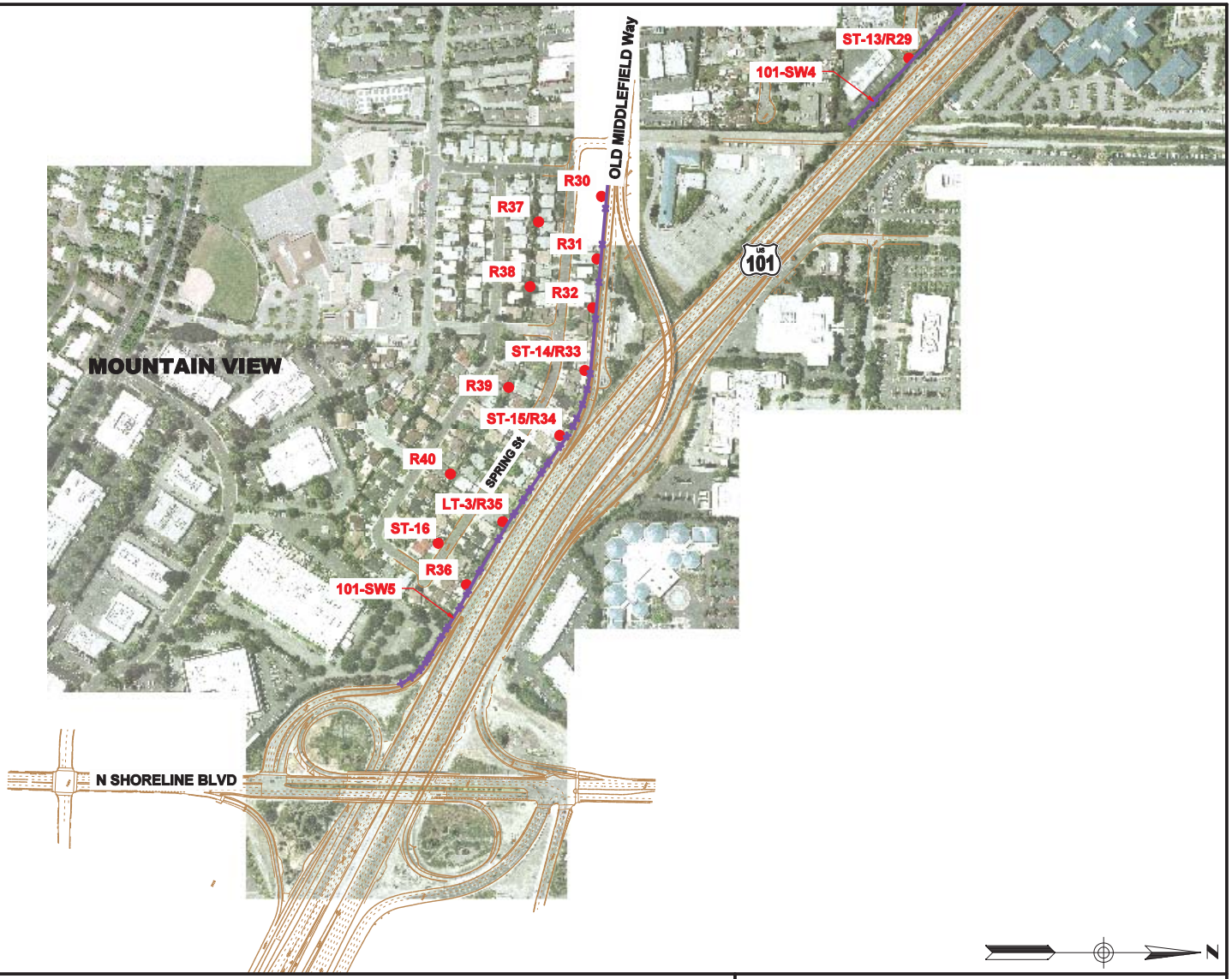
6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION SR 85 EXPRESS LANES PROJECT

SHEET NO. 4 OF 5



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- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

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MODELED NOISE RECEIVER & BARRIER LOCATION SR 85 EXPRESS LANES PROJECT

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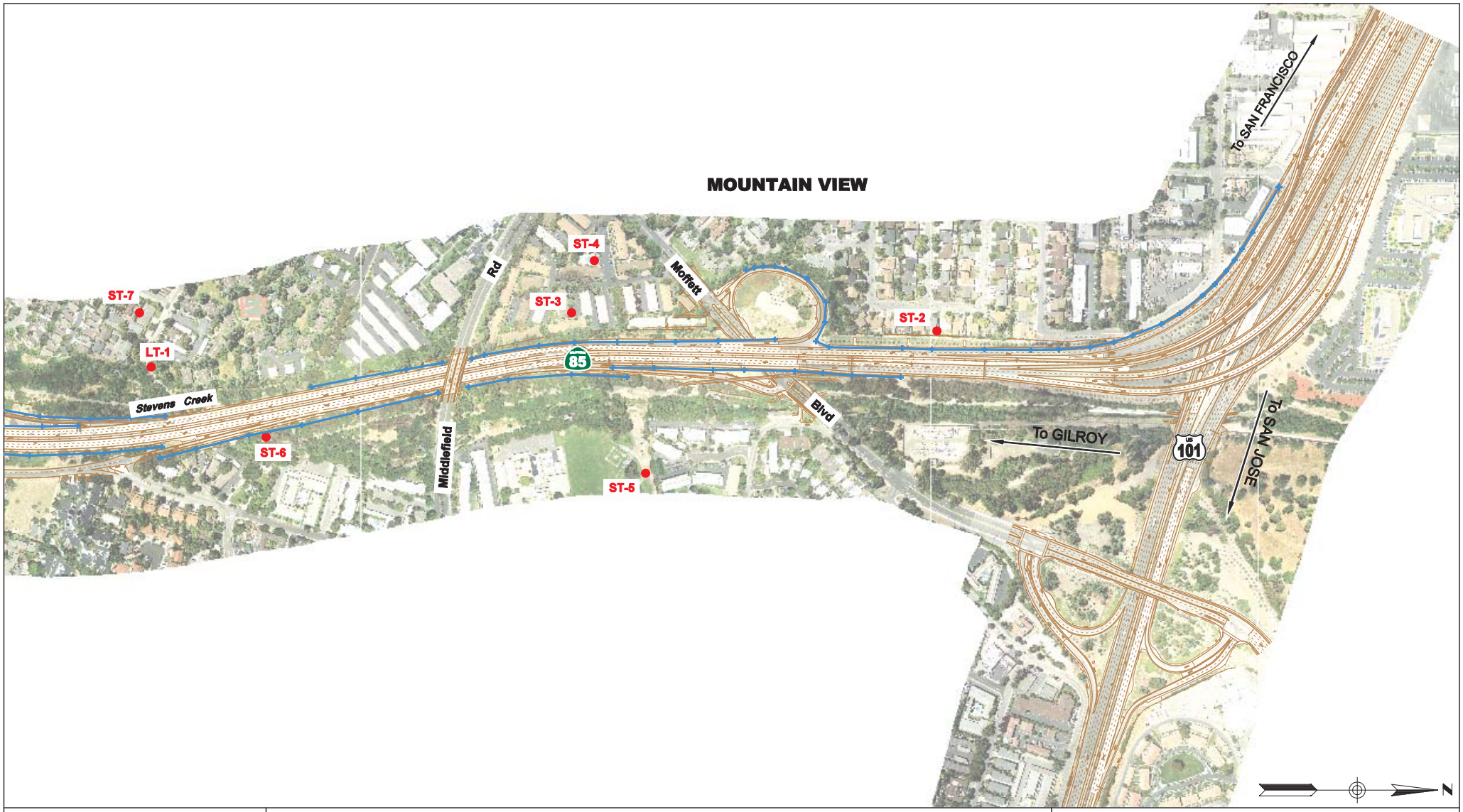

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- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

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6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION SR 85 EXPRESS LANES PROJECT

SHEET NO. 1 OF 26

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- EXISTING BARRIER
- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

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MODELED NOISE RECEIVER & BARRIER LOCATION SR 85 EXPRESS LANES PROJECT

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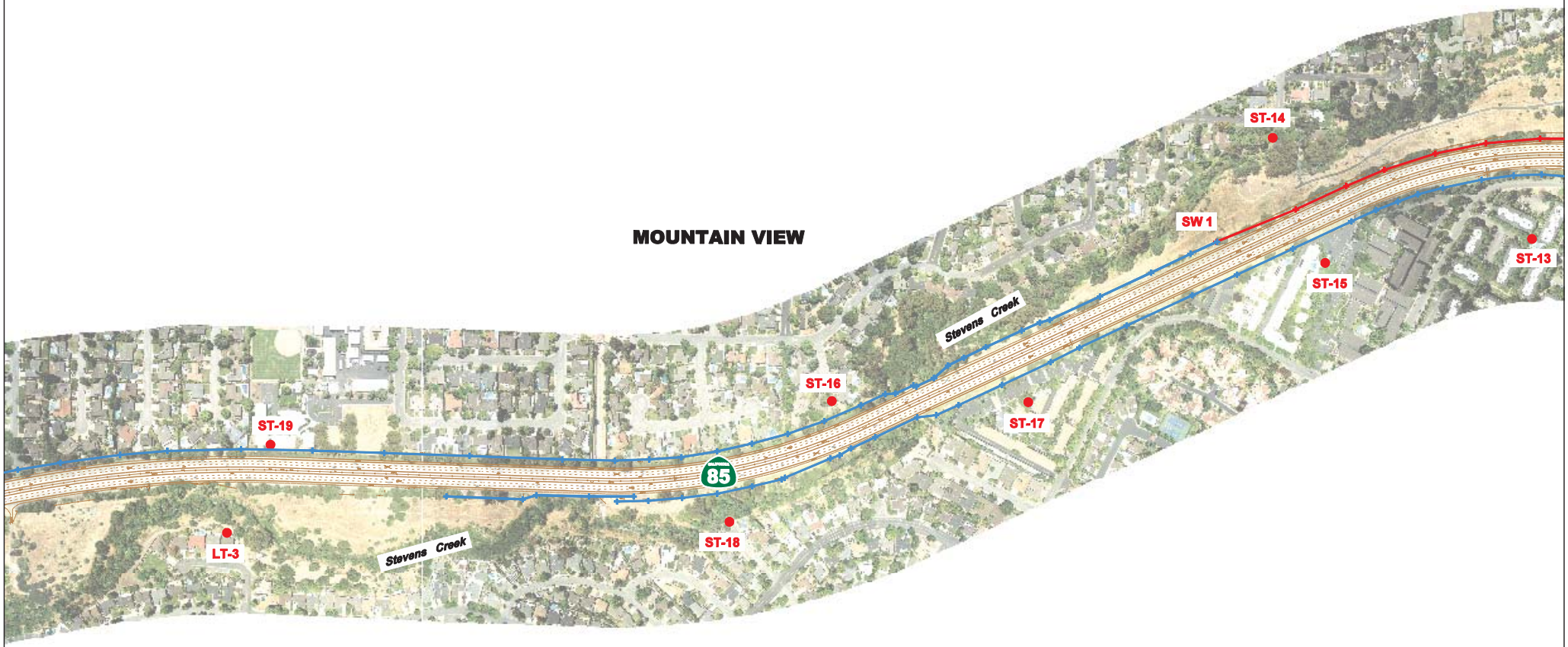

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- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

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MODELED NOISE RECEIVER & BARRIER LOCATION SR 85 EXPRESS LANES PROJECT

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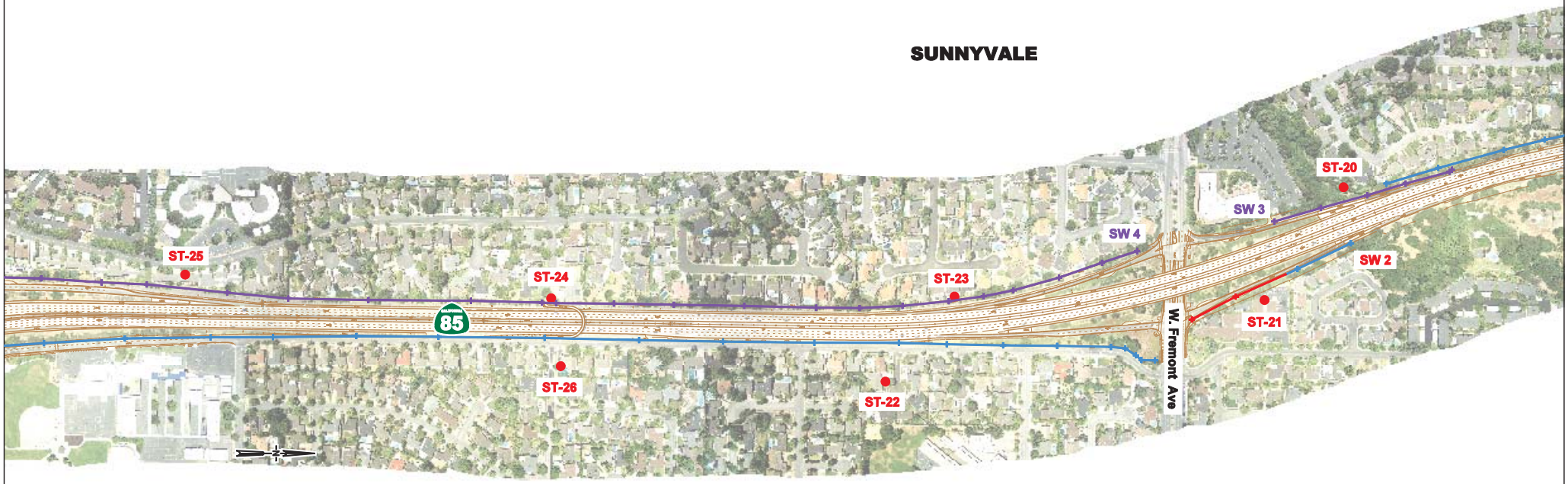

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- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

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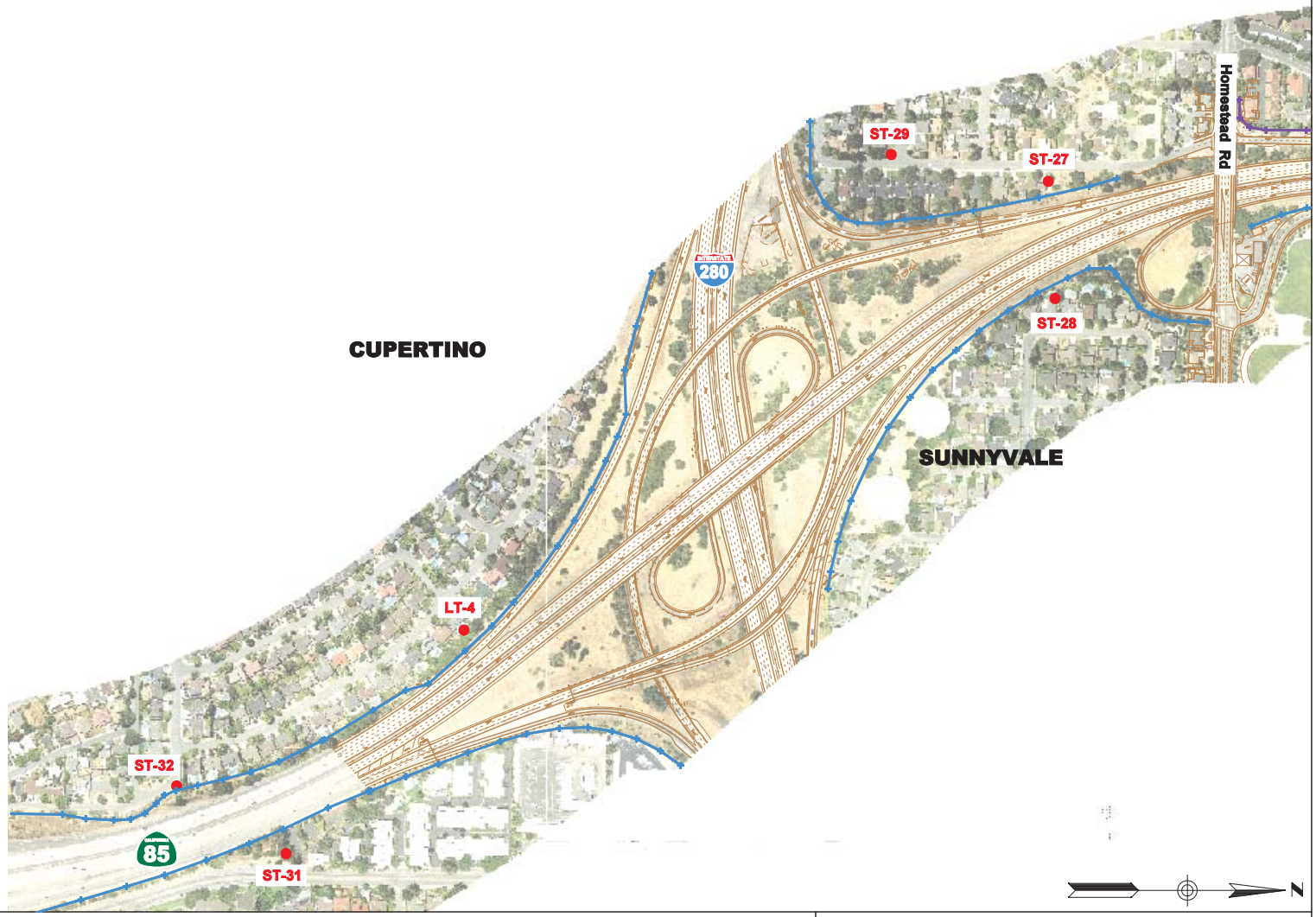
6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION SR 85 EXPRESS LANES PROJECT

SHEET NO. 4 OF 26



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- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

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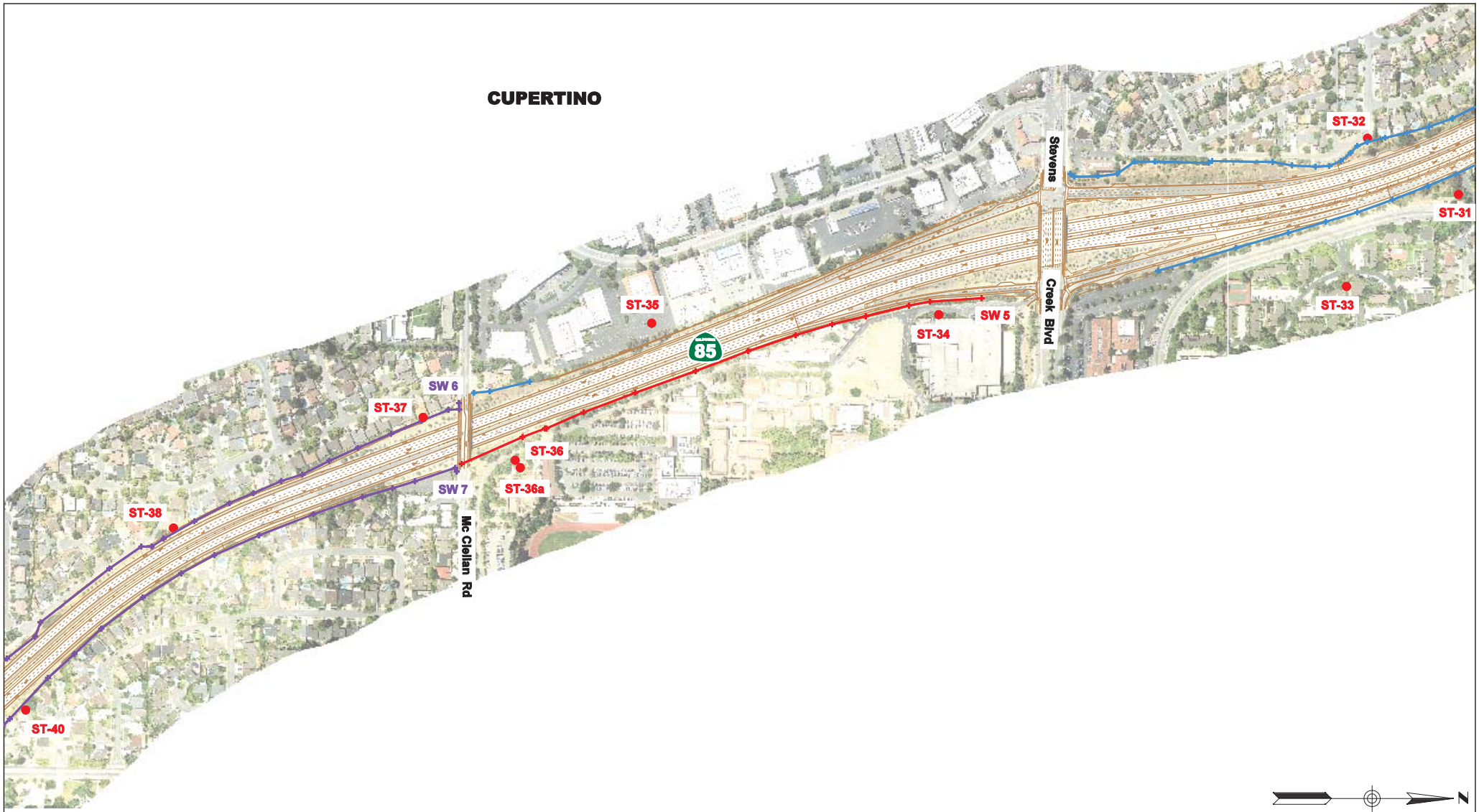
6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION
SR 85 EXPRESS LANES PROJECT

SHEET NO. 5 OF 26



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- EXISTING BARRIER
- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

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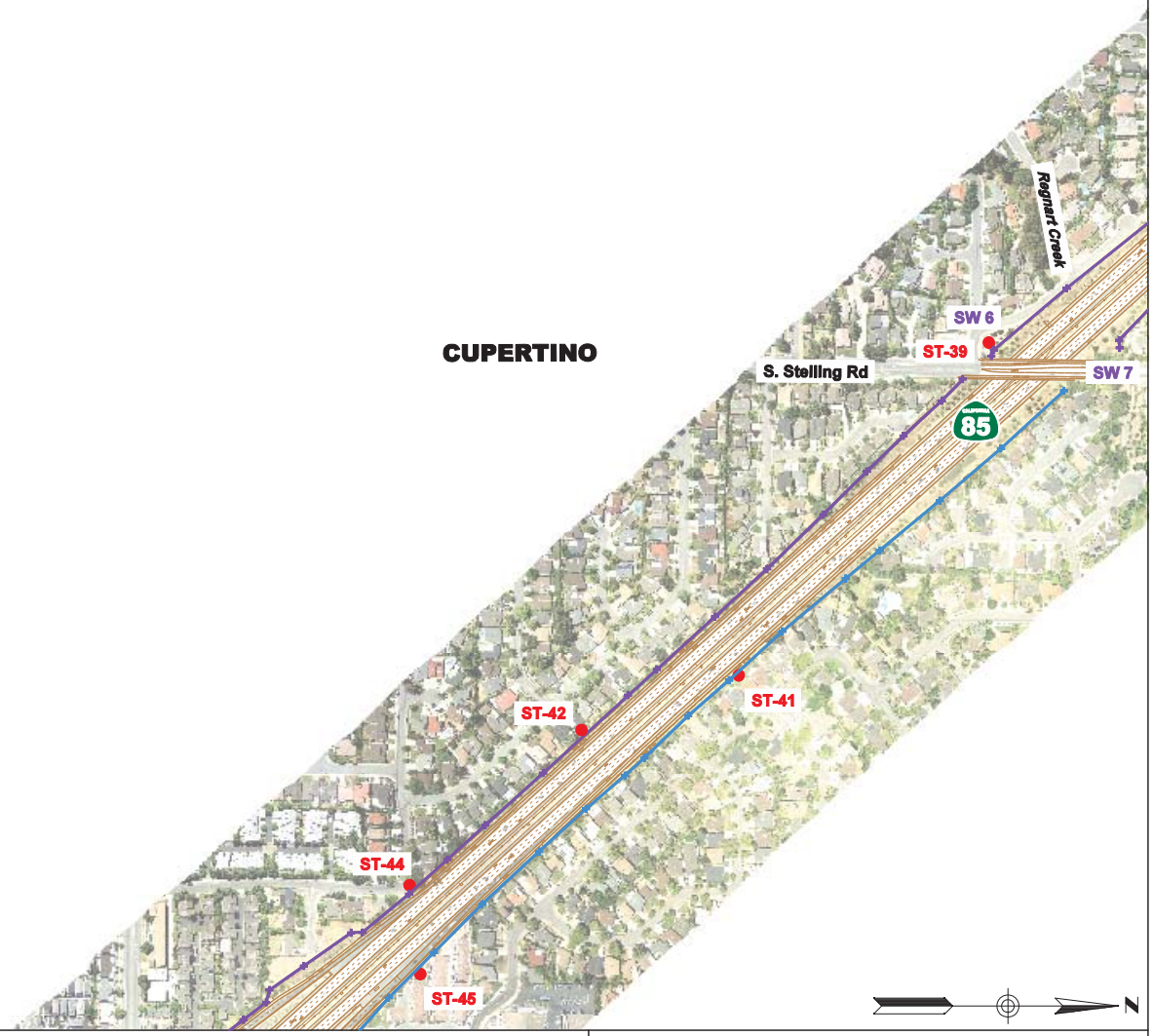
6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION SR 85 EXPRESS LANES PROJECT

SHEET NO. 6 OF 26



LEGEND:

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- EXISTING BARRIER
- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

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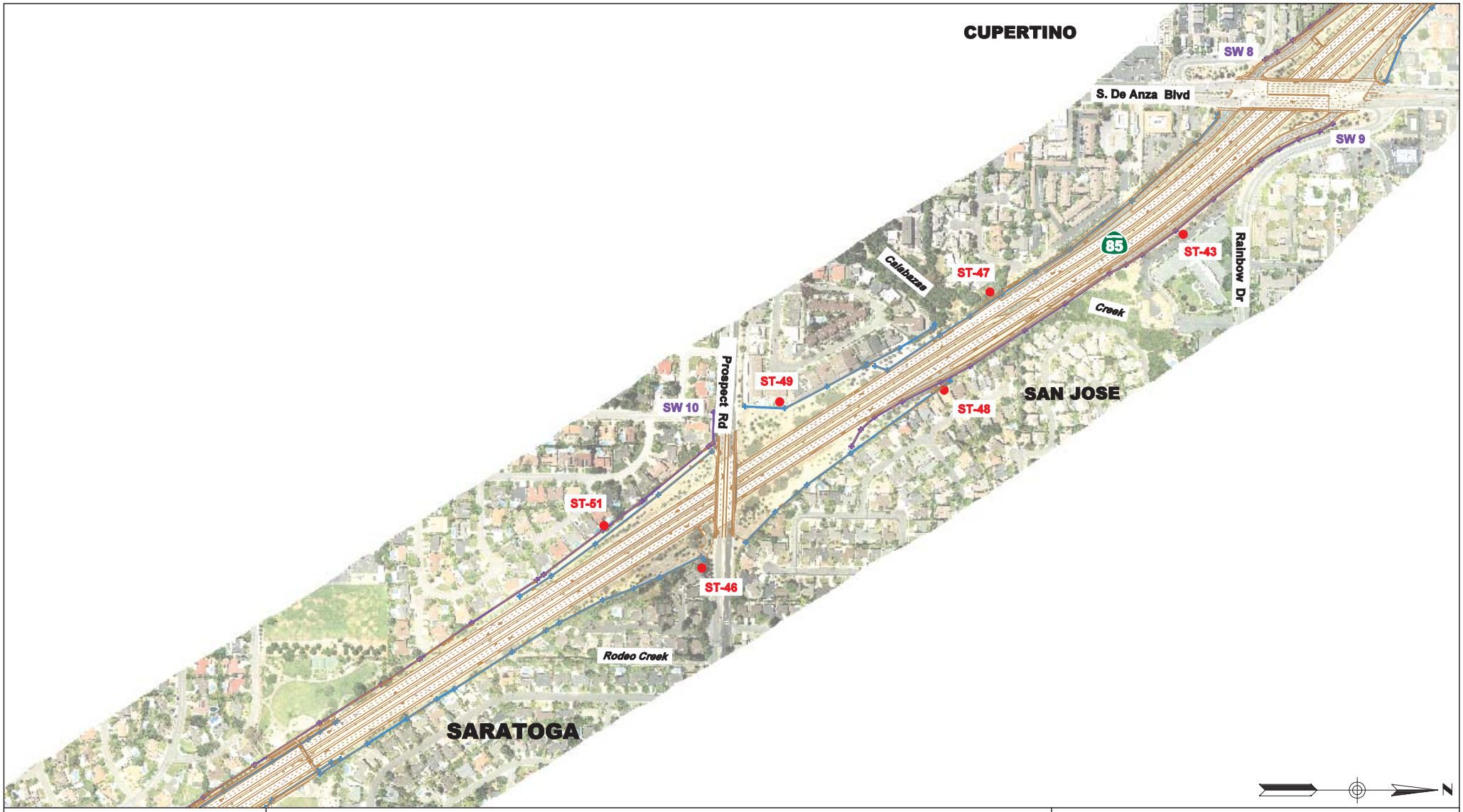
6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION SR 85 EXPRESS LANES PROJECT

SHEET NO. 7 OF 26



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- EXISTING BARRIER
- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

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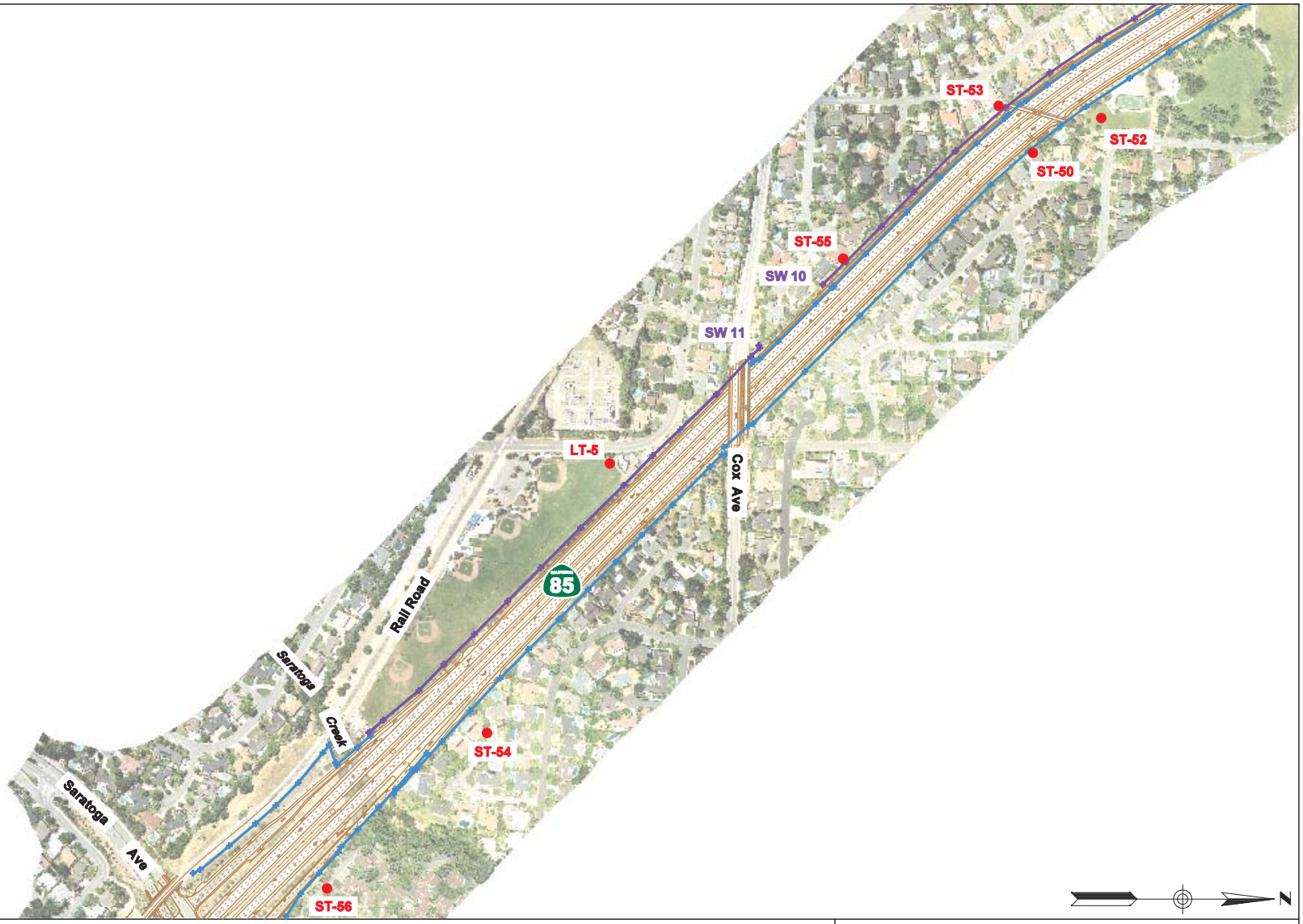
6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION SR 85 EXPRESS LANES PROJECT

SHEET NO. 8 OF 26



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- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

1: 400
FEET

0 FT | 400FT | 800FT | 1,600FT

6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION SR 85 EXPRESS LANES PROJECT

SHEET NO. 9 OF 26

LEGEND:

- MODEL RECEIVER LOCATION
- EXISTING BARRIER
- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

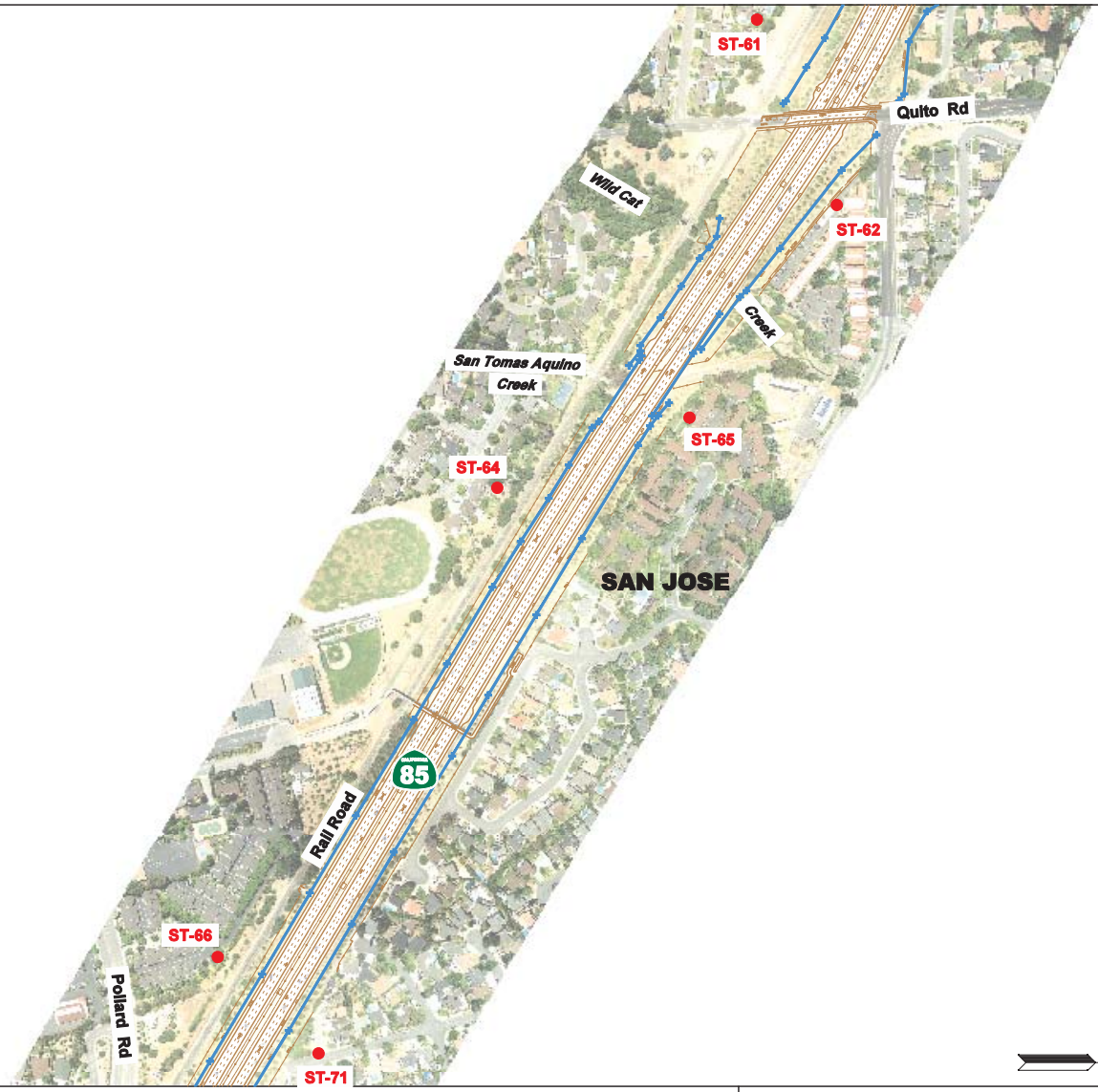
1: 400
FEET

0 FT | 400FT | 800FT | 1,600FT

6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION
SR 85 EXPRESS LANES PROJECT

SHEET NO. 10 OF 26



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- EXISTING BARRIER
- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

1: 400
FEET

0 FT | 400FT | 800FT | 1,600FT

6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION
SR 85 EXPRESS LANES PROJECT

SHEET NO. 11 OF 26

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LEGEND:

- MODEL RECEIVER LOCATION
- EXISTING BARRIER
- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

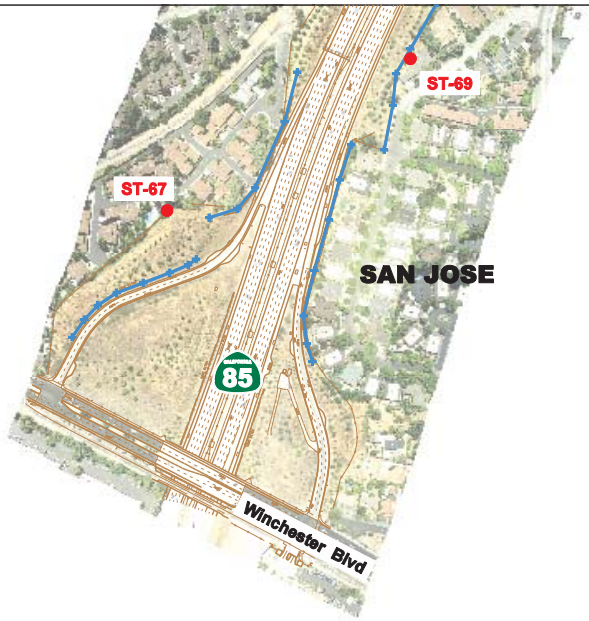
1: 400
FEET

0 FT | 400FT | 800FT | 1,600FT

6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION SR 85 EXPRESS LANES PROJECT

SHEET NO. 12 OF 26



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LEGEND:

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- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

1: 400
FEET

0 FT | 400FT | 800FT | 1,600FT

6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION
SR 85 EXPRESS LANES PROJECT

SHEET NO. 13 OF 26

LEGEND:

- MODEL RECEIVER LOCATION
- EXISTING BARRIER
- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

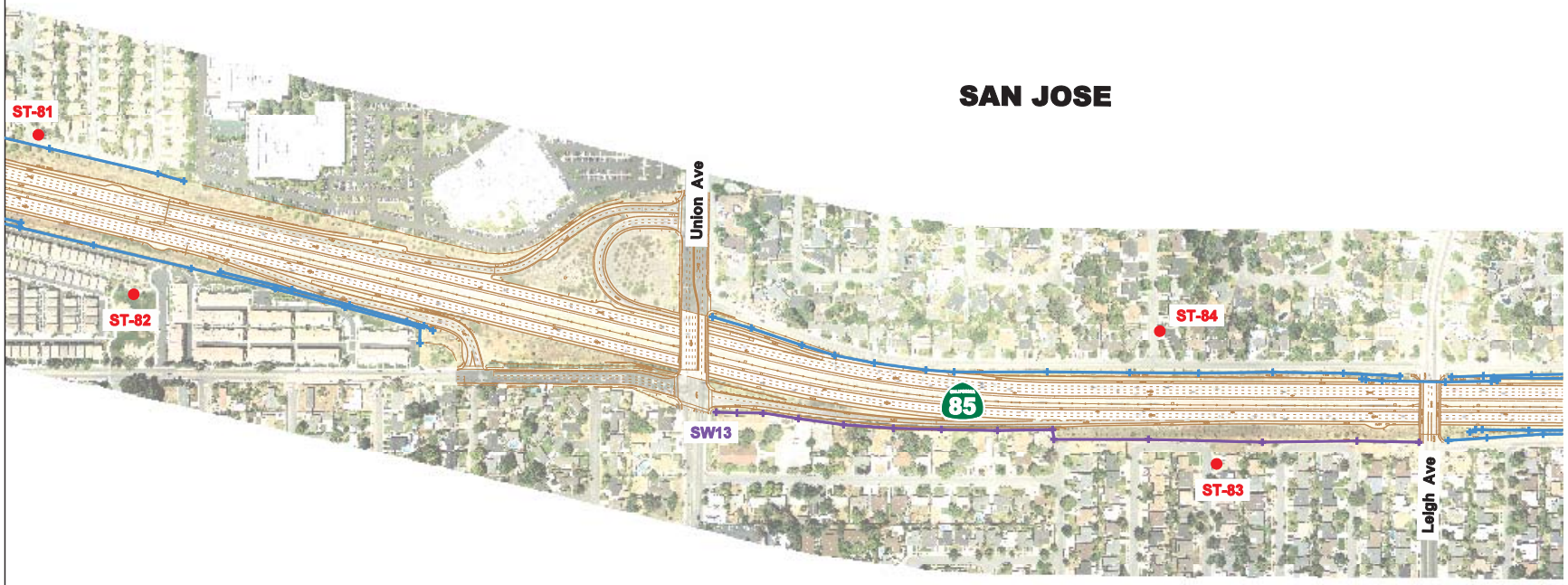
1: 400
FEET

0 FT | 400FT | 800FT | 1,600FT

6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION SR 85 EXPRESS LANES PROJECT

SHEET NO. 14 OF 26



LEGEND:

- MODEL RECEIVER LOCATION
- EXISTING BARRIER
- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

1: 400
FEET

0 FT | 400FT | 800FT | 1,600FT

6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION SR 85 EXPRESS LANES PROJECT

SHEET NO. 15 OF 26

LEGEND:

- MODEL RECEIVER LOCATION
- EXISTING BARRIER
- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

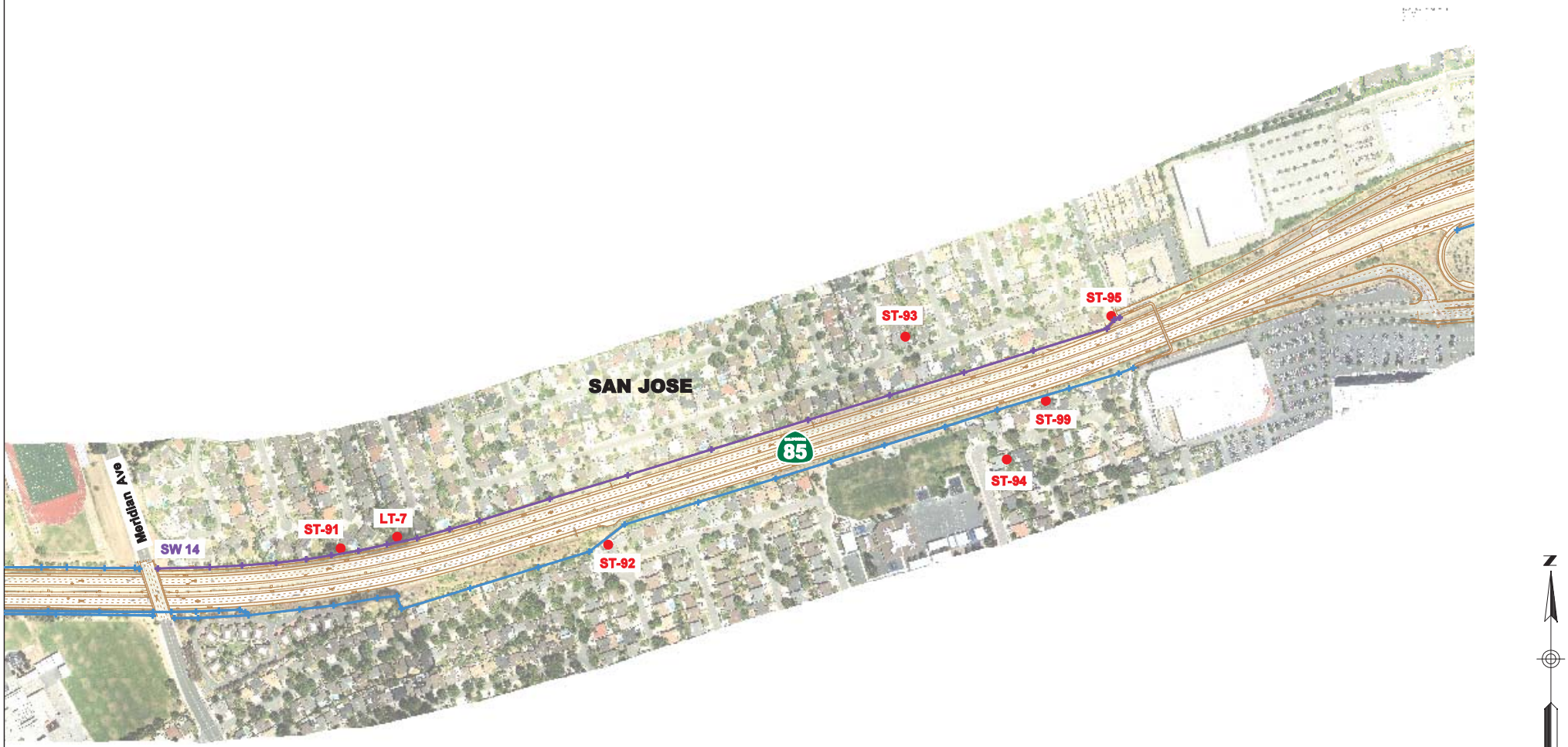
1: 400
FEET

0 FT | 400FT | 800FT | 1,600FT

6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION
SR 85 EXPRESS LANES PROJECT

SHEET NO. 16 OF 26



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- EXISTING BARRIER
- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

1: 400
FEET

0 FT | 400FT | 800FT | 1,600FT

6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION
SR 85 EXPRESS LANES PROJECT

LEGEND:

- MODEL RECEIVER LOCATION
- EXISTING BARRIER
- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

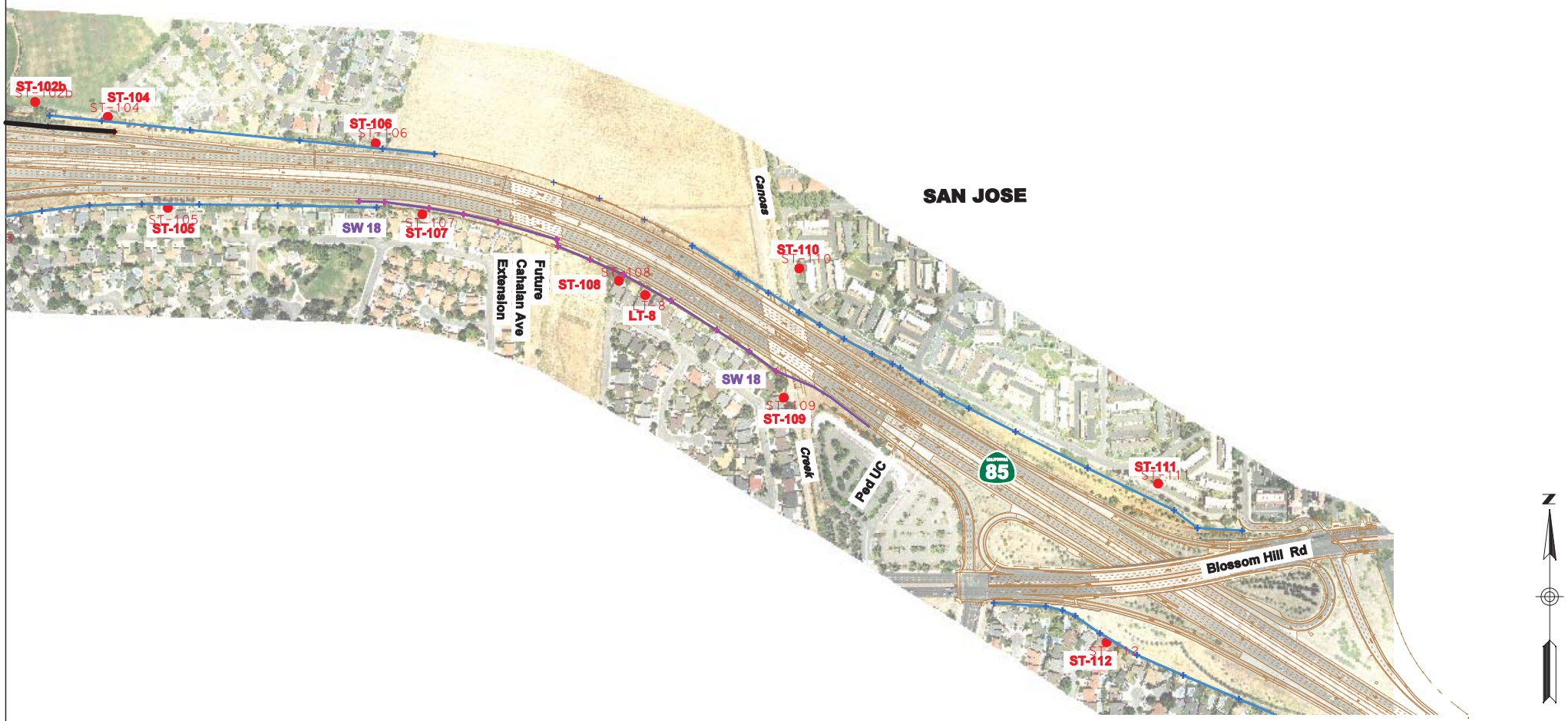
1: 400
FEET

0 FT | 400FT | 800FT | 1,600FT

6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION SR 85 EXPRESS LANES PROJECT

SHEET NO. 18 OF 26



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- EXISTING BARRIER
- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

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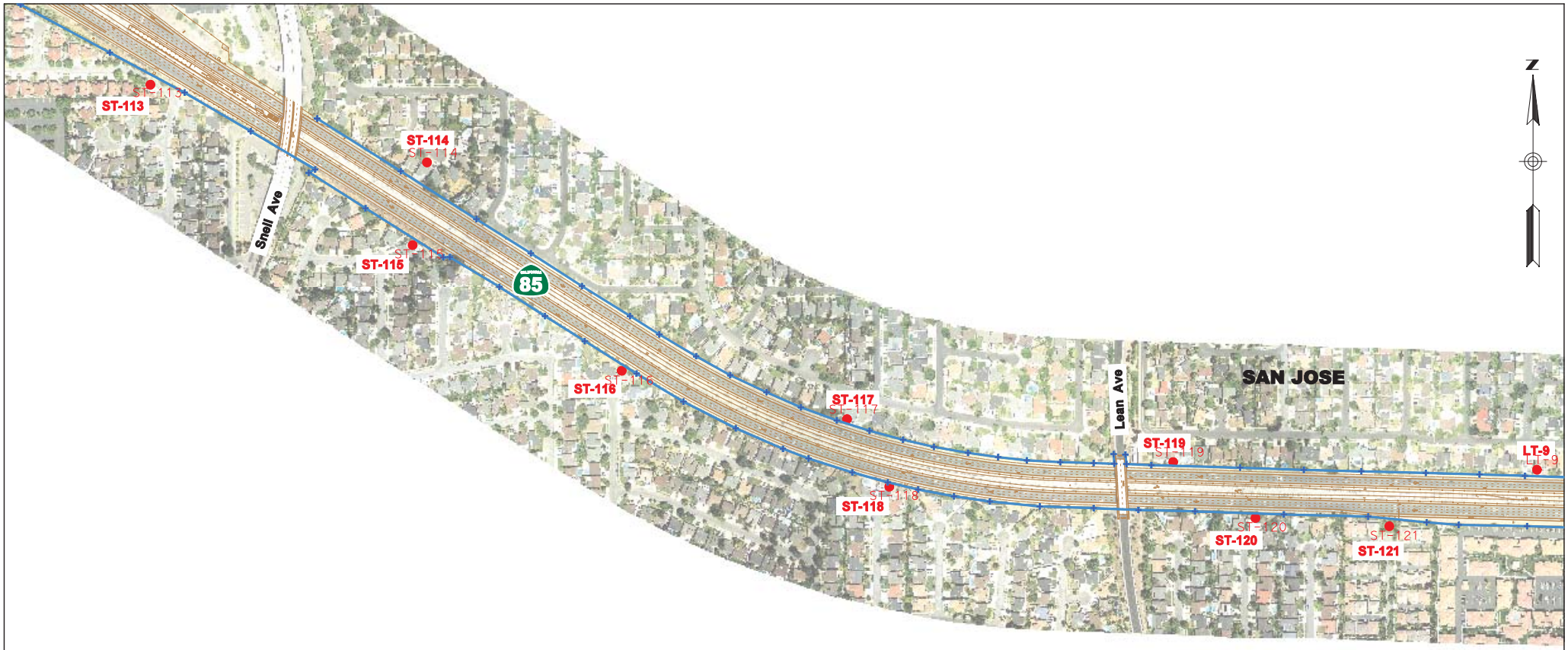
6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION SR 85 EXPRESS LANES PROJECT

SHEET NO. 19 OF 26



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- EXISTING BARRIER
- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

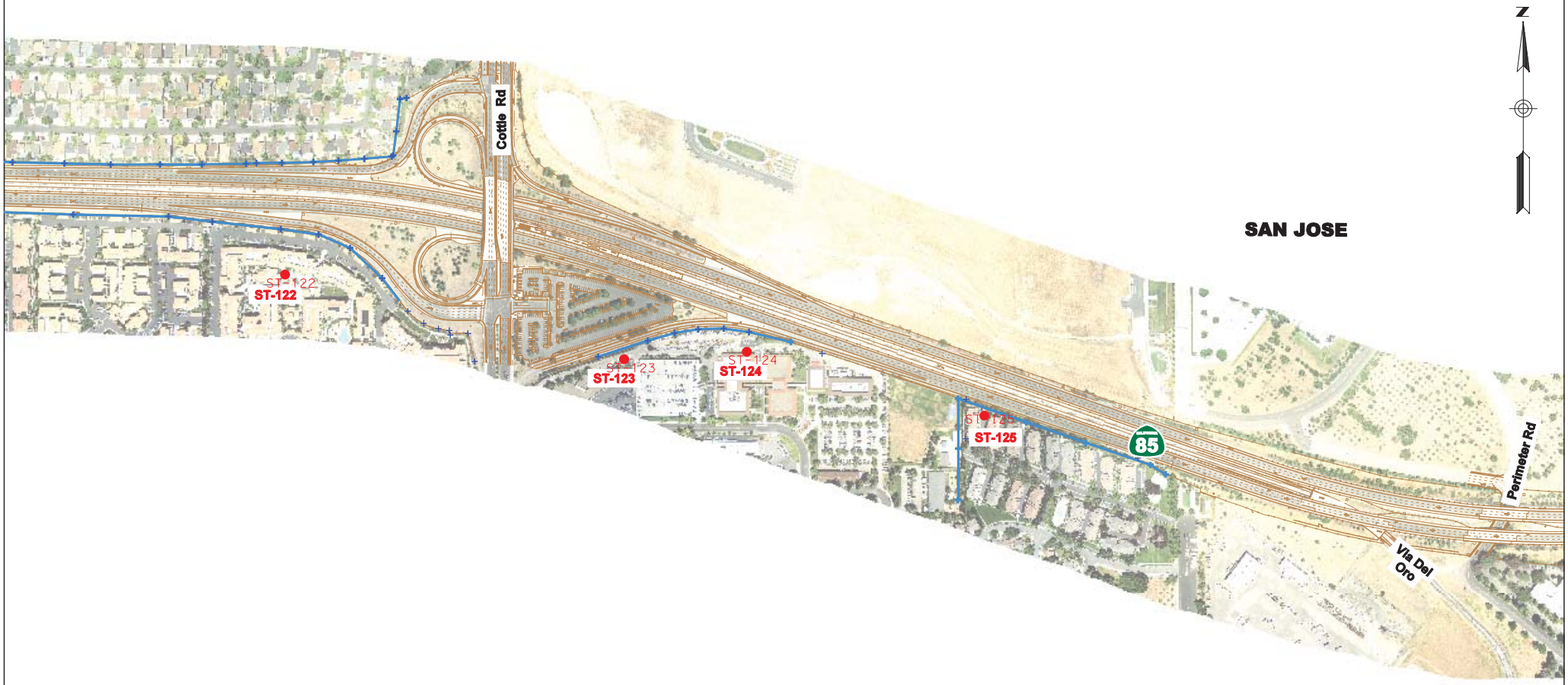
1: 400
FEET

0 FT | 400FT | 800FT | 1,600FT

6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION SR 85 EXPRESS LANES PROJECT

SHEET NO. 20 OF 26



LEGEND:

- MODEL RECEIVER LOCATION
- EXISTING BARRIER
- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

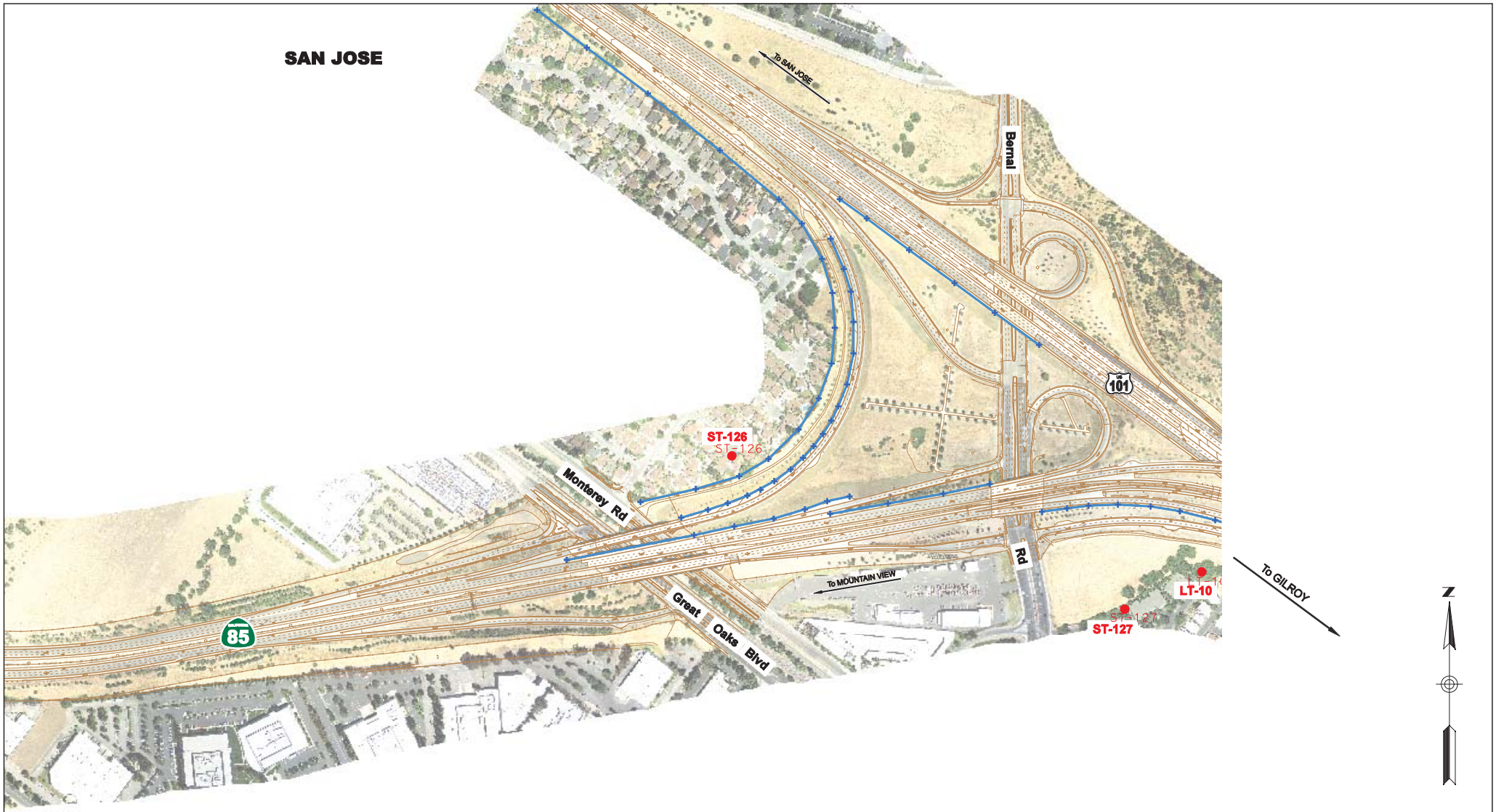
1: 400
FEET

0 FT | 400FT | 800FT | 1,600FT

6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION SR 85 EXPRESS LANES PROJECT

SHEET NO. 21 OF 26



LEGEND:

- MODEL RECEIVER LOCATION
- EXISTING BARRIER
- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

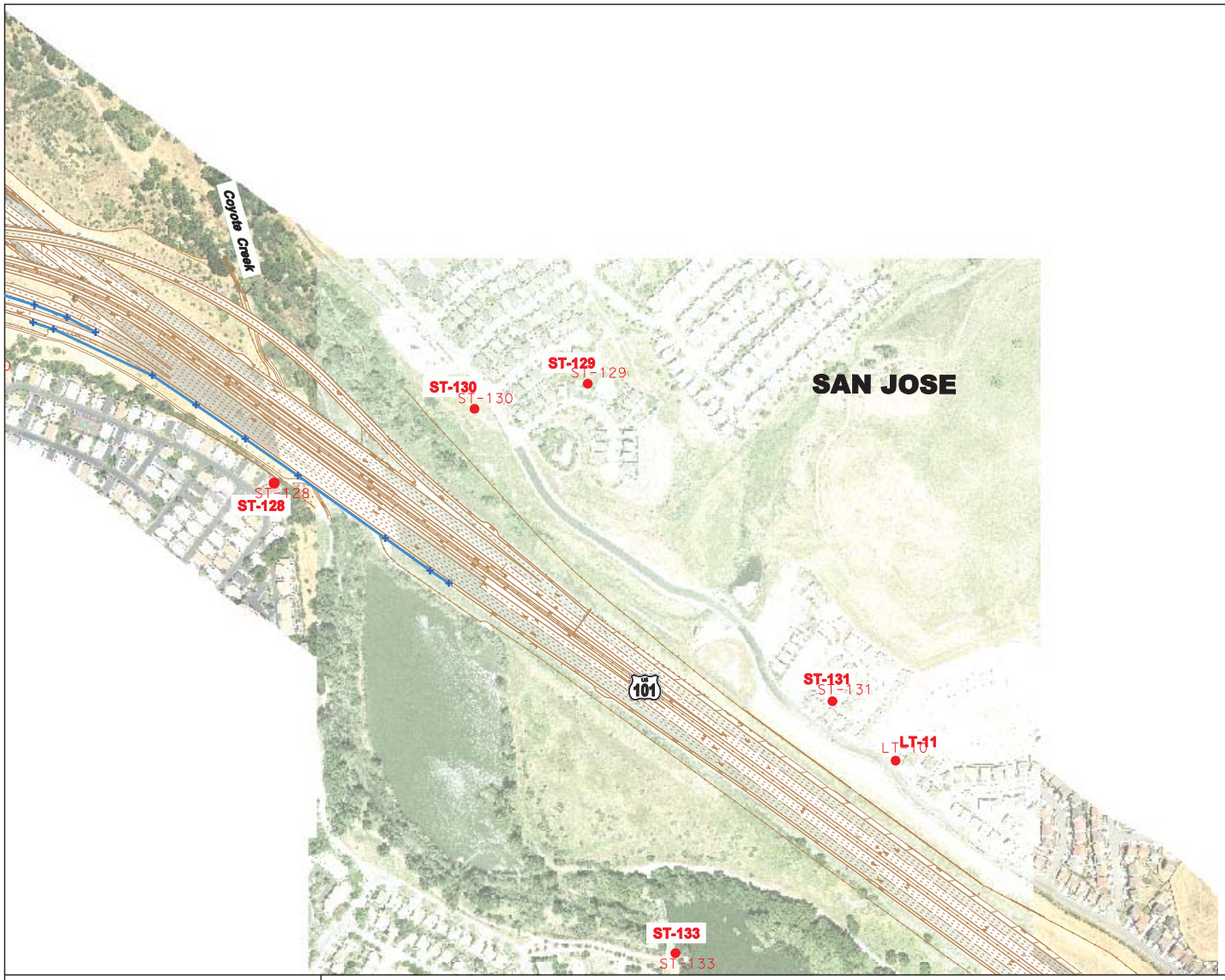
1: 400
FEET

0 FT | 400FT | 800FT | 1,600FT

6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION SR 85 EXPRESS LANES PROJECT

SHEET NO. 22 OF 26



LEGEND:

- MODEL RECEIVER LOCATION
- EXISTING BARRIER
- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

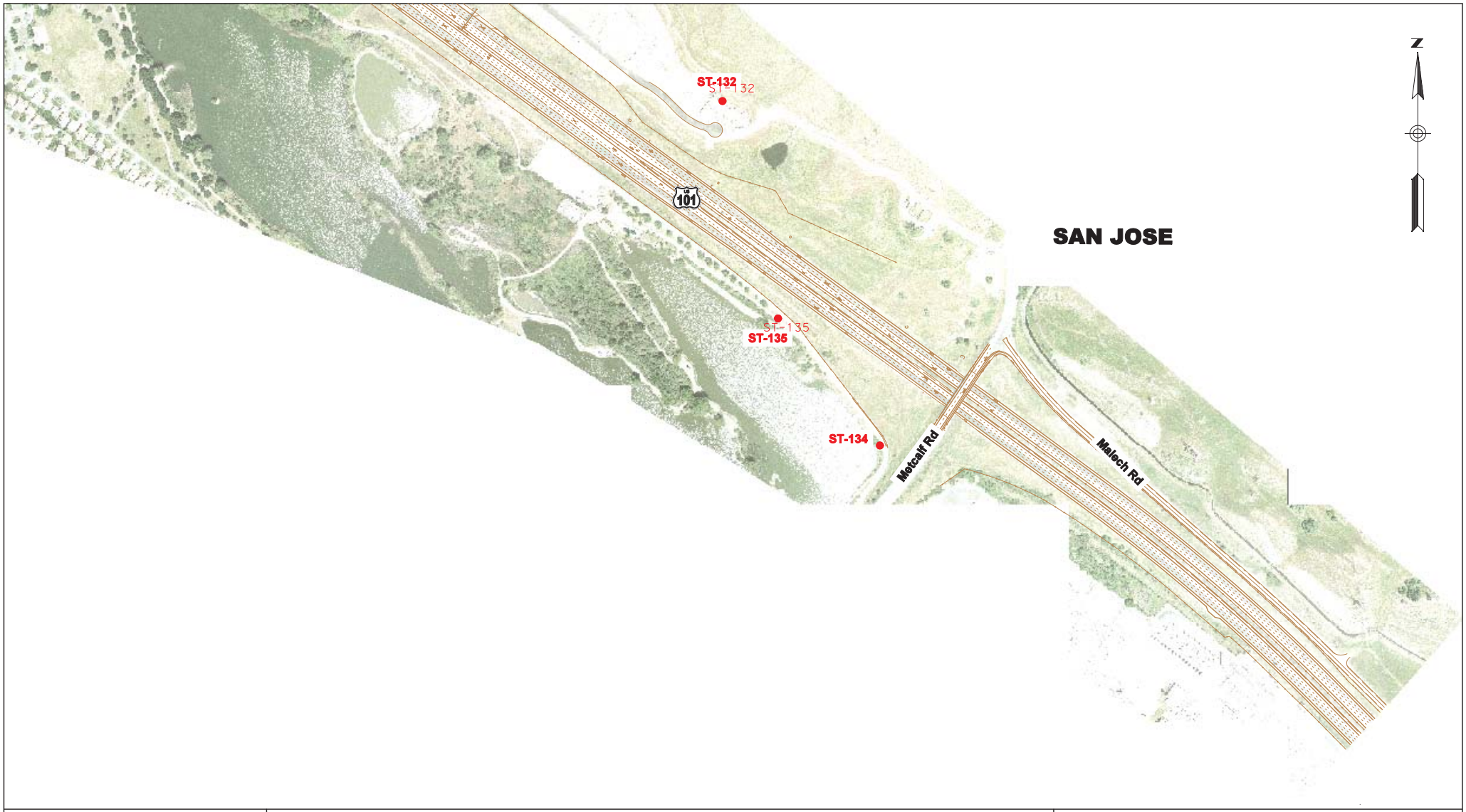
1: 400
FEET

0 FT | 400FT | 800FT | 1,600FT

6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION
SR 85 EXPRESS LANES PROJECT

SHEET NO. 23 OF 26



LEGEND:

- MODEL RECEIVER LOCATION
- EXISTING BARRIER
- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

1: 400
FEET

0 FT | 400FT | 800FT | 1,600FT

6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION
SR 85 EXPRESS LANES PROJECT

SHEET NO. 24 OF 26

LEGEND:

- MODEL RECEIVER LOCATION
- EXISTING BARRIER
- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

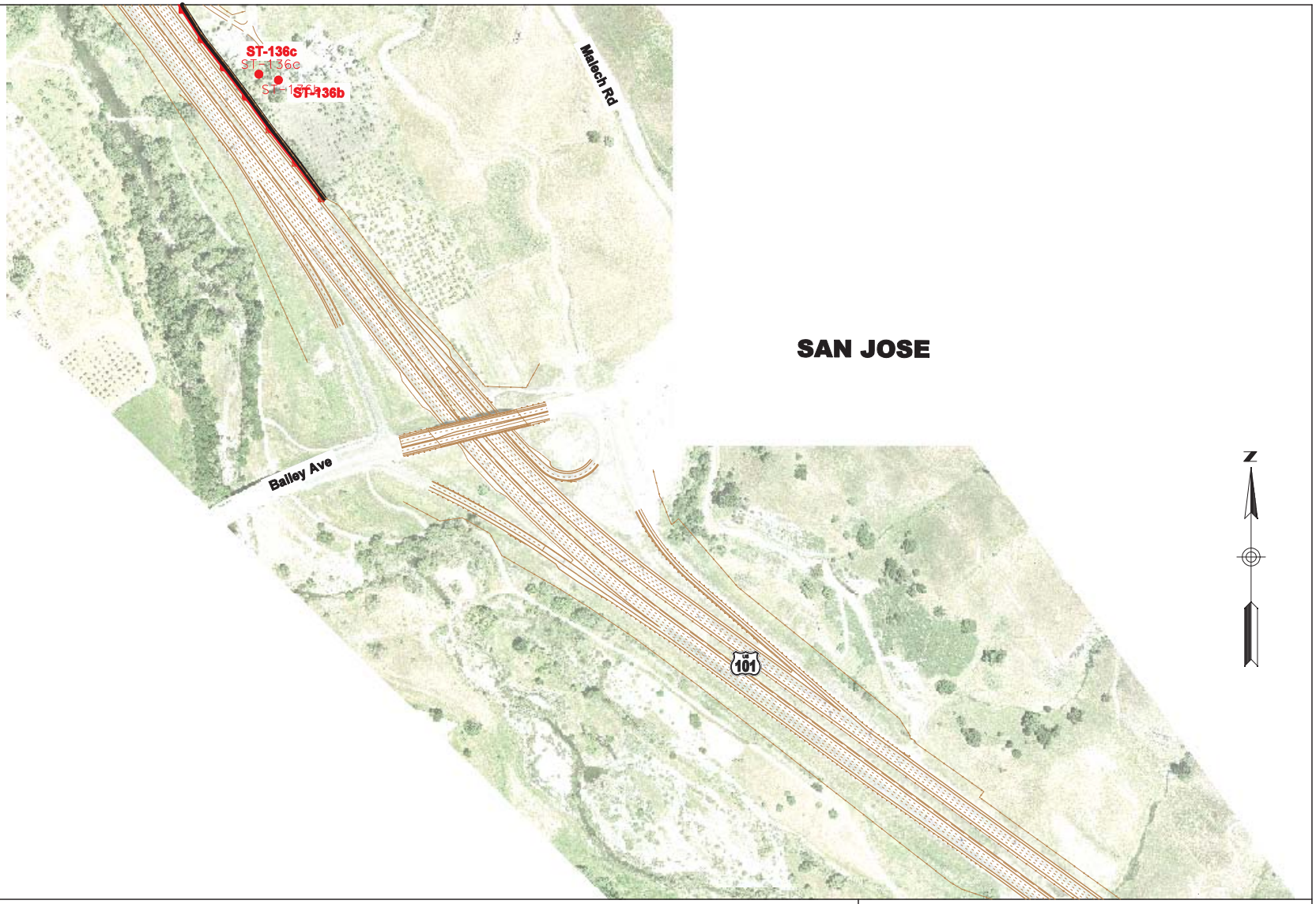
1: 400
FEET

0 FT | 400FT | 800FT | 1,600FT

6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION
SR 85 EXPRESS LANES PROJECT

SHEET NO. 25 OF 26



LEGEND:

- MODEL RECEIVER LOCATION
- EXISTING BARRIER
- EVALUATED NOISE ABATEMENT (NEW BARRIER)
- EVALUATED NOISE ABATEMENT (INCREASED BARRIER HEIGHT)

1: 400
FEET

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6/29/12

MODELED NOISE RECEIVER & BARRIER LOCATION
SR 85 EXPRESS LANES PROJECT

SHEET NO. 26 OF 26

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Appendix B CEQA Checklist

Supporting documentation of all California Environmental Quality Act (CEQA) checklist determinations is provided in Chapter 2 of this Initial Study/Environmental Assessment (IS/EA). Documentation of “No Impact” determinations is provided at the beginning of Chapter 2. Discussion of all impacts, avoidance, minimization, and/or mitigation measures is under the appropriate topic headings in Chapter 2.

CEQA Environmental Checklist

04-SCL-85 **04-SCL-101**	**PM 0.0/24.1** **PM 23.1/28.6, 47.9/52.0**	**04-4A7900**
Dist.-Co.-Rte.	PM/PM	E.A.

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
I. AESTHETICS: Would the project:				
a) Have a substantial adverse effect on a scenic vista	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐
II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
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?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant 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))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
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?	☐	☐	☐	☒
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☒
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐
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?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
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?	☐	☐	☐	☒
V. CULTURAL RESOURCES: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒
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?	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
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?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

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? b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	An assessment of the greenhouse gas emissions and climate change is included in the body of environmental document. While Caltrans 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 GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding 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 the body 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?	☐	☐	☐	☒
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?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
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?	☐	☐	☐	☒

IX. HYDROLOGY AND WATER QUALITY: Would the project:

a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
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 which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
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 which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
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 which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐
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?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow	☐	☐	☐	☒
X. LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
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?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
XIV. PUBLIC SERVICES:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☒
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XV. RECREATION:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒
XVI. TRANSPORTATION/TRAFFIC: Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county Transportation Commission for designated roads or highways?	☐	☐	☒	☐
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?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒
XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
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 with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

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 levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
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)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐