Ellis Street Overcrossing

On State Route 99 in the City of Madera
06-MAD-99-PM 13.1
06-425300
SCH #2008032091

Initial Study with Mitigated Negative Declaration/ Environmental Assessment with Finding of No Significant Impact

Prepared by the
State of California Department of Transportation
and the City of Madera

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by the Department under its assumption of responsibility pursuant to 23 U.S. Code 327.

June 2008

General Information About This Document

What's in this document?

This document contains a Negative Declaration and Finding of No Significant Impact, which examine the environmental effects of a proposed project on 06-MAD 99-PM 13.1

The Initial Study/Environmental Assessment and proposed Negative Declaration was circulated to the public from March 25, 2008 to April 25, 2008. Responses to the circulated document are shown in the Comments and Responses section of this document. Throughout this document, a line in the margin indicates changes from the draft document.

What happens after this?

The proposed project has completed environmental compliance after the circulation of this document. When funding is approved, the California Department of Transportation, as assigned by the Federal Highway Administration, can design and construct all or part of the project.

It should be noted that at a future date, Caltrans acting through the Federal Highway Administration or another federal agency may publish a notice in the Federal Register, pursuant to 23 U. S. Code Section 139(l), indicating that a final action has been taken on this project by Caltrans or another federal agency. If such notice is published, a lawsuit or other legal claim will be barred unless it is filed within 180 days after the date of publication of the notice (or within such shorter time period as is specified in the federal laws pursuant to which judicial review of the federal agency action is allowed). If no notice is published, then the lawsuit or claim can be filed as long as the periods of time provided by other federal laws that govern claims are met.

For individuals with sensory disabilities, this document is available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Bobi Lyon-Ritter, Chief, Sierra Pacific Environmental Analysis Branch, California Department of Transportation, 2015 East Shields Avenue, Suite 100, Fresno, CA 93726; 559-243-8178 Voice, or use the California Relay Service TTY number, 1-800-735-2929.

06-MAD-99-PM 13.1
06-42530

Construct the Ellis Street Overcrossing on State Route 99 north
of the Avenue 16 interchange in the City and County of Madera

INITIAL STUDY
with Mitigated Negative Declaration/
ENVIRONMENTAL ASSESSMENT
With Finding of No Significant Impact

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 U.S. Code 4332(2)(C) and 23 U.S. Code 327

THE STATE OF CALIFORNIA
Department of Transportation
and
City of Madera

_____
Date of Approval

_____
Carrie L. Bowen, Chief
Central Region Environmental Division
California Department of Transportation

_____
Date of Approval

_____
David J. Merchen Director
Community Development
City of Madera

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California Department of Transportation
Finding of No Significant Impact

[For the "final" Initial Study/Environmental Assessment, include the Finding of No Significant Impact (FONSI) if applicable. This page and the blank back are provided here only as placeholders. Delete them in the "Draft" document.]

FOR
(*Title of Proposed Action*)

The California Department of Transportation (Caltrans) (*and joint lead local agency, as appropriate)* has determined that alternative (*identify the alternative selected*) will have no significant impact on the human environment. This Finding of No Significant Impact is based on the attached Environmental Assessment (*reference other environmental and non-environmental documents as appropriate*), which has been independently evaluated by Caltrans and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. Caltrans takes full responsibility for the accuracy, scope, and content of the attached Environmental Assessment and incorporated technical reports (and other documents as appropriate).

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried-out by Caltrans under its assumption of responsibility pursuant to 23 U.S. Code 327.

_____ _____for

Date

[Name]
District Director
California Department of Transportation

(The DD signs the document or may designate signature authority to the (1) the DDD for Environmental Planning or (2), the Environmental Office Chief (EOC) managing the environmental assessment unit that prepared the document.)

Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The City of Madera (City) and the California Department of Transportation (Caltrans) propose to construct a new roadway connecting Avenue 16 on the west side of State Route 99 to Ellis Street on the east side of State Route 99 north of the Avenue 16 interchange in the City and County of Madera. The structure built to cross State Route 99 would also span the Union Pacific Railroad tracks, Sharon Avenue, and Golden State Boulevard.

Determination

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

The project would have no significant effect on air quality, noise, animal species, water quality, geology/soil/seismic/topography resources, paleontology, visual resource, or relocations because the following minimization/mitigation measures would reduce potential effects to insignificance:

- The project would have no effect on air quality or noise except during construction. Construction impacts to air quality would be mitigated by compliance with air district regulations, and noise impacts would be mitigated by compliance with Caltrans' "Sound Control Requirements," standard specification Section 7-1.011.
- No animal species or endangered and threatened species were identified within the project limits during field surveys; however, the area provides marginal habitat for some species. Potential impacts during construction would be mitigated by the application of avoidance or minimization measures.
- The project would have a positive impact on utilities, emergency services, traffic and transportation by enhancing local circulation. Pedestrians and bicyclists would benefit by additional facilities; however, there is a potential for temporary disruption during construction of the project, which would be mitigated by developing a Traffic Management Plan.
- Impacts to water quality and geology/soil/seismic/topography resources would be mitigated through the use of erosion control practices.
- Impacts to paleontological resources would be mitigated through use of a monitoring and mitigation plan.
- Impacts to visual resources would be mitigated with landscaping.
- The project does not result in any residential or business relocation, but any right-of-way acquisition would use a process, consistent with federal and state law, for the acquisition of land.

Jennifer H. Taylor, Office Chief Date	David J. Merchen, Director Date_____
Central Region Environmental Division	Community Development
California Department of Transportation	City of Madera

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List of Abbreviated Terms

Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
FHWA	Federal Highway Administration
NEPA	National Environmental Policy Act
PM	Post Mile

Chapter 1 Proposed Project

1.1 Introduction

The City of Madera and the California Department of Transportation (Caltrans) propose to construct an overcrossing on State Route 99 between Avenue 17 and Cleveland Avenue (post mile 13.1) in the City of Madera in Madera County (see Figure 1-1). The project would construct a new roadway connecting Ellis Street on the east side of State Route 99 with Avenue 16 on the west side of State Route 99. The project would begin west of the Madera Irrigation District canal on Ellis Street, extending Ellis Street in a southwest direction across Sharon Avenue, the Union Pacific Railroad tracks, State Route 99, and Golden State Boulevard. On the west side of State Route 99, the new alignment would continue in a southwest direction and connect with Avenue 16 between Granada and Schnoor Avenues (see Figure 1-2).

The project includes widening Ellis Street within the existing right-of-way from west of the canal bridge (west of Country Club Drive) to Krohn Street and constructing a new roadway (Kennedy Street) to connect the Ellis Street extension and the Avenue 16/Schnoor Avenue intersection. Another new roadway, Swanson Way, would be constructed at a later date and would connect the Ellis Street extension east of State Route 99 to Sharon Avenue.

The project would improve traffic flow and service levels at the Cleveland Avenue/Gateway Drive/Country Club Drive intersection because currently there is no overcrossing that provides access to the east side of State Route 99 and the Union Pacific Railroad tracks between Cleveland Avenue and Avenue 17. The existing intersection at Avenue 16/State Route 99 provides access only on and off State Route 99. Once Avenue 16 crosses State Route 99, it merges with North Gateway Drive, west of the Union Pacific Railroad tracks, and continues south to the Cleveland Avenue/Gateway Drive/Country Club Drive intersection.

The absence of a crossing over the freeway and railroad tracks limits vehicular and pedestrian access to the residential and commercial areas east of the freeway and adds to the congestion at the Cleveland Avenue/Gateway Drive/County Club Drive intersection.

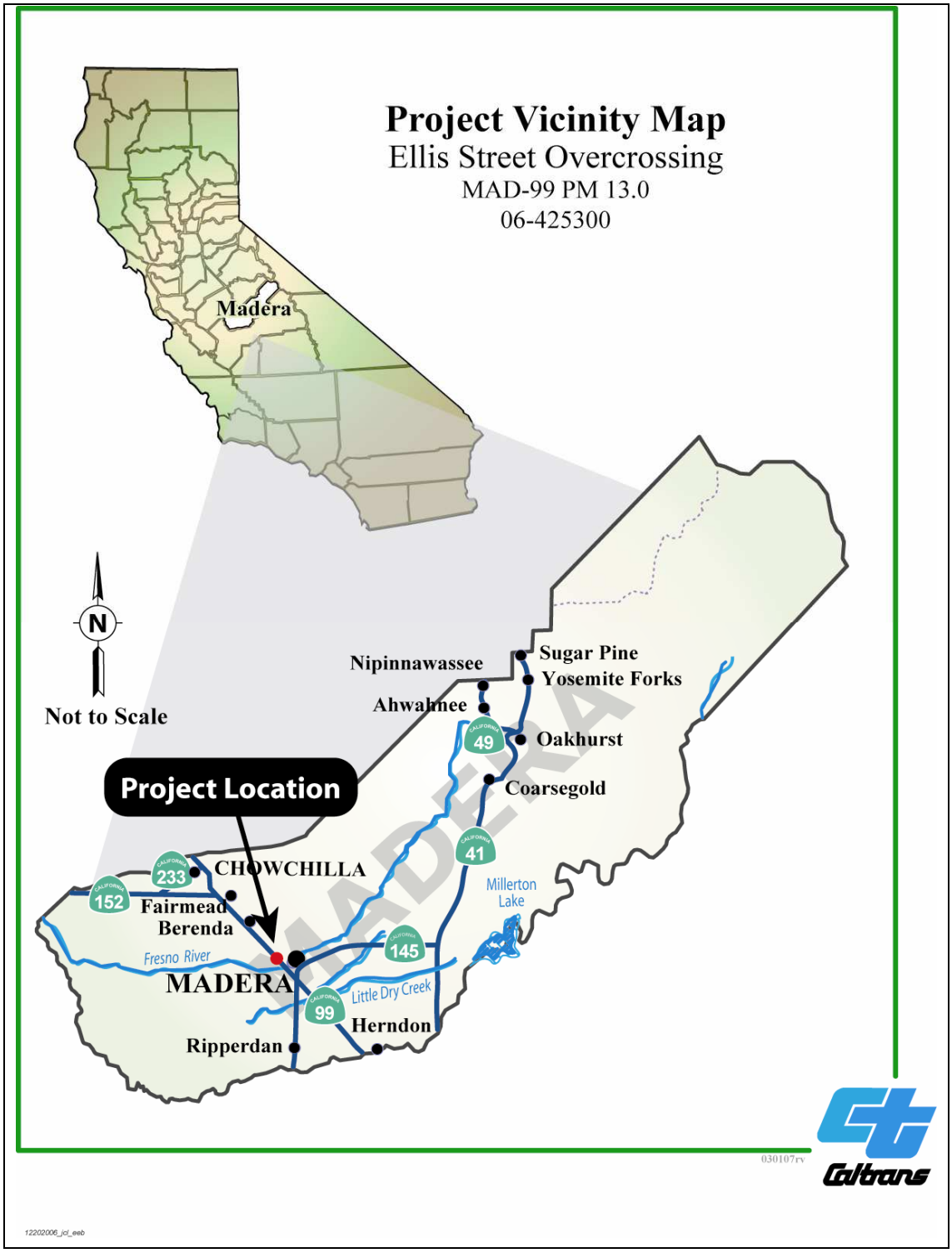

Figure 1-1 Project Vicinity Map

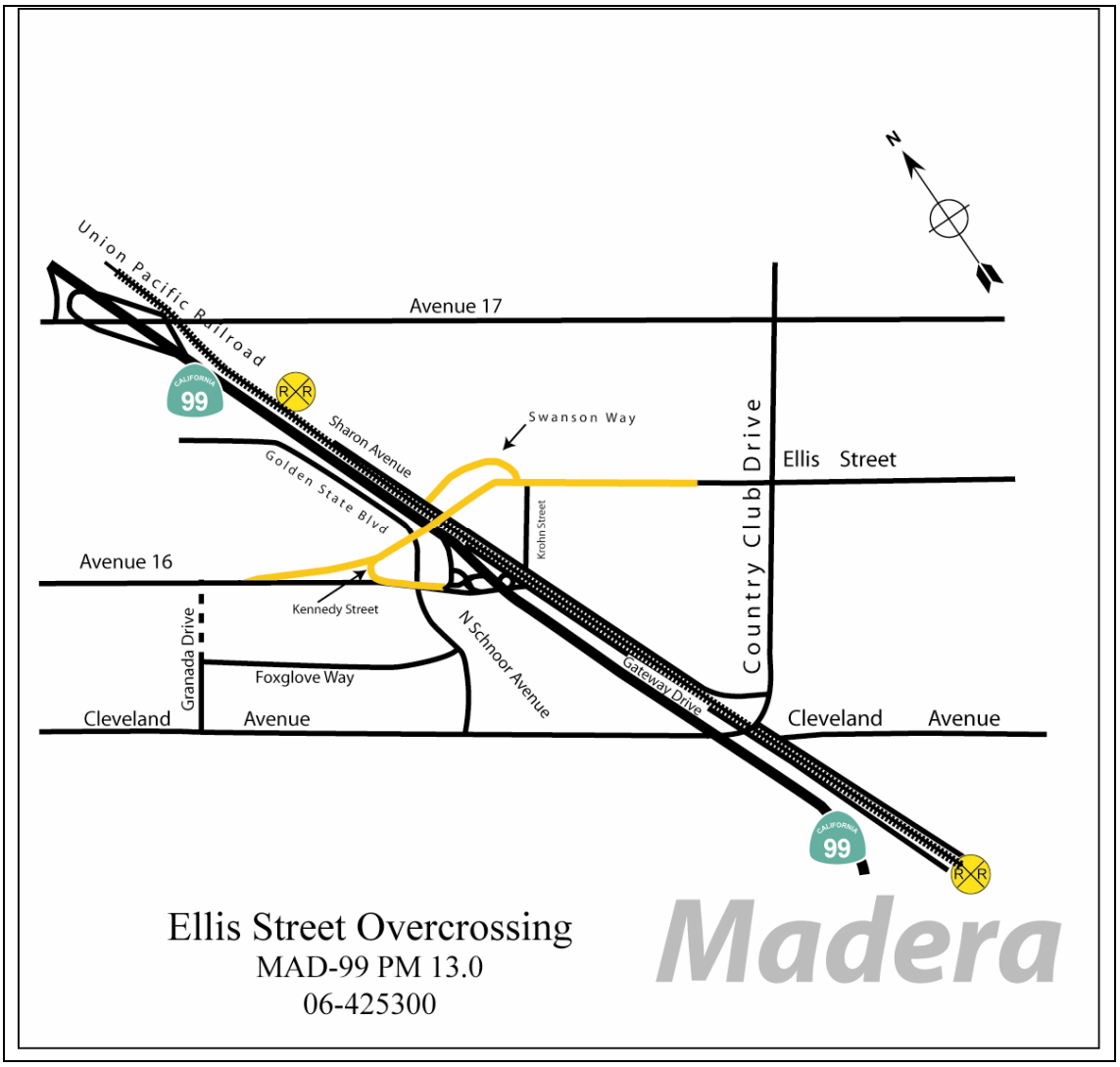

Figure 1-2 Project Location

The City of Madera would fund this project from state and local sources, including the State Transportation Improvement Program, Measure A, Measure T, Proposition 1B, and the Madera Redevelopment Agency. These funds are programmed in fiscal years 2008/2009 and 2009/2010. The City of Madera would be responsible for completing the plans, specifications, and estimates. This project is also currently included in the fiscal year 2008/2009 Regional Improvement Program.

According to the Madera County Transportation Commission, passage of Proposition 1B in the November 2006 state election resulted in funding for the State Transportation Improvement Program Augmentation Program. Subsequently, Madera County was allocated $17.8 million in regional discretionary transportation dollars to

be programmed for fiscal year 2007-2011. Working with local government agencies, the Madera County Transportation Commission proposed adding the Ellis Street Overcrossing project along with four other transportation projects in its 2007 Regional Transportation Improvement Program.

1.2 Purpose and Need

The project "purpose" is a set of objectives the project intends to meet. The project "need" is the transportation deficiency that the project was initiated to address.

1.2.1 Purpose

The purpose of the project is to:

- Reduce current and future congestion at the Cleveland Avenue/Gateway Drive/ Country Club Drive intersection during peak hours.
- Improve traffic operations on state and local roadways for the northeastern part of the City of Madera.
- Improve traffic circulation for local residents needing to cross State Route 99 and the Union Pacific Railroad tracks.

1.2.2 Need

1.2.2.1 Congestion

A traffic study was completed for the Ellis Street Overcrossing project in July 2005 (*Traffic Study for the Ellis Street Overcrossing*, July 27, 2005). Traffic data was collected for the evening (also known as PM) peak hour in February 2004. Analysis was performed for existing (2004), construction year (2009) and design year (2025) conditions to show what conditions would be like if the proposed project were not constructed. Data used in Tables 1.1 and 1.2 was obtained from that traffic study.

Level of service is an indicator of the operating conditions of intersections and roadways, defined as categories ranging from "A" to "F" (see Figure 1-3). For example, for roadways, Level of Service "A" indicates free-flowing traffic with no hindrance to driving speed caused by traffic conditions, while a Level of Service "F" indicates substantial congestion with slow-moving, stop-and-go traffic.

Level of Service	Intersection with Traffic Signals	Intersection without Traffic Signals	Roadway (Daily)
"A"	Uncongested operations, all queues clear in a single-signal cycle. Delay equal or less than 10.0 seconds	Little or not delay. Delay equal or less than 10 seconds per vehicle	Completely free flow
"B"	Uncongested operations, all queues clear in a single cycle. Delay over 10.0 seconds and equal or less than 20 seconds	Short traffic delays. Delay over 10 seconds per vehicle and equal or less than 15 seconds per vehicle	Free flow, presence of other vehicles noticeable.
"C"	Light congestion, occasional backups on critical approaches. Delay over 20.0 seconds and equal or less than 35.0 seconds	Average traffic delays. Delay over 15 seconds per vehicle and equal or less than 25 seconds per vehicle.	Ability to maneuver and select operating speed affected.
"D"	Significant congestion of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. Delay over 35 seconds and equal or less than 55 seconds.	Long traffic delays. Delay over 25 seconds per vehicle and equal or less than 35 seconds per vehicle.	Unstable flow, speeds and ability to maneuver restricted
"E"	Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es). Delay over 55.0 seconds and equal or less than 80.0 seconds.	Very long traffic delays, failure, and extreme congestion. Delay over 35 seconds per vehicle and less than or equal to 50 seconds per vehicle.	At or near capacity, flow quite unstable.
"F"	Total breakdown, stop-and-go operation. Delay over 80.0 seconds.	Intersection blocked by external causes. Delay over 50 seconds per vehicle.	Forced flow, breakdown.

Sources: 2000 Highway Capacity Manual, Transportation Research Board (TRB) Special Report 209

Figure 1-3 Level of Service Definitions

In the northeastern portion of the City of Madera, the only available routes across State Route 99 and the Union Pacific Railroad tracks are Cleveland Avenue and Avenue 17. Avenue 16 crosses State Route 99, but does not cross the Union Pacific Railroad tracks. Once eastbound traffic on Avenue 16 crosses State Route 99, the traffic merges onto Gateway Drive and travels southward to Cleveland Avenue. The traffic interchanges at State Route 99/Avenue 17 and State Route 99/Cleveland Avenue are congested at peak hours, and the level of service is projected to decrease to unacceptable levels in the future. The City of Madera identifies Level of Service "D" as the operational threshold used to define acceptable intersection operations.

Table 1.1 shows the existing (2004) and predicted (construction year 2009 and design year 2025) conditions without the project, including peak hour traffic volumes and level of service, for the roadways within the project limits. The data were computed via the MINUTP computer used and maintained by the Madera County Transportation Commission to model traffic volumes. Although a high number of vehicles use the Cleveland Avenue/Gateway Drive/Country Club Drive and State Route 99/Cleveland Avenue routes, the traffic study determined that all the roadways currently experience acceptable operations of Level of Service "D" or better.

Without the project, by the year 2009, three roadway segments are predicted to exceed the City Level of Service (shaded area in Table 1.1):

- Avenue 16/Schnoor Avenue to State Route 99 southbound ramp
- Avenue 16/State Route 99 overcrossing
- Gateway Drive/State Route 99 northbound ramps to West Cleveland Avenue

The City of Madera has plans for developing the fairgrounds and the surrounding area on Cleveland Avenue west of State Route 99. Peak hour traffic volume is expected to increase as a result of the planned development, and traffic at the intersections in the project area is expected to increase over the existing levels by approximately 60 percent by the year 2025. The projections for the year 2025 without the project in Table 1.1 assume full development of the fairgrounds project as currently proposed. In addition, roadway improvements to Avenue 16 and Gateway Drive would result in changes to type of roadway, capacity, and daily volume:

- Avenue 16 at Schnoor Avenue to the State Route 99 southbound ramp would become a 4-lane arterial increasing its average daily traffic capacity from 9,000 to 24,000 vehicles. The predicted daily volume is predicted to increase from 8,175 vehicles to 18,775 vehicles.
- Gateway Drive at the State Route 99 northbound ramps to the West Cleveland Avenue would become a 4-lane arterial increasing its average daily traffic capacity from 9,000 to 18,000 vehicles. The predicted daily volume is predicted to decrease from 9,395 vehicles to 5,995 vehicles.

Projections for the year 2025 without the project indicate that all roadway segments being studied would continue to operate at a Level of Service "C" or better except for Avenue 16 at the State Route 99 overcrossing, which is predicted to exceed its traffic capacity resulting in a Level of Service "F."

The predicted improvement to the levels of service for Avenue 16 at Schnoor Avenue to the State Route 99 southbound ramp ("E" to "C"), and for Gateway Drive at the State Route 99 northbound ramps to the West Cleveland Avenue ("E" to "A") would result from the planned roadway improvements to handle the anticipated increase in traffic capacity. All of the roadway segments with acceptable levels of service are predicted to operate at less than 80 percent of their capacity, and Ellis Street is predicted to operate at only 31.5 percent (1,575 daily volume/5,000 capacity).

Table 1.1 Average Daily Traffic Volumes and Level of Service (Existing and Predicted)

Facility	Location	Type of Roadway	Traffic Data	Existing Conditions	Predicted Conditions Without Project	
					2009	2025
Avenue 16	Schnoor Avenue to State Route 99 Southbound ramp	2-lane collector (4-lane in 2025)	Capacity (1)	9,000	9,000	24,000
			Daily Volume	7,570	8,175	18,775
			Level of Service	D	**E**	C
Avenue 16	State Route 99 Overcrossing	2-lane collector	Capacity	9,000	9,000	12,000
			Daily Volume	7,680	8,294	12,110
			Level of Service	D	**E**	**F**
North Schnoor Avenue	South of Avenue 16	4-lane arterial	Capacity	24,000	24,000	24,000
			Daily Volume	4,850	5,240	9,280
			Level of Service	A	A	A
Gateway Drive	State Route 99 northbound ramps to West Cleveland Avenue	2-lane collector (4-lane in 2025)	Capacity	9,000	9,000	18,000
			Daily Volume	7,775	9,395	5,995
			Level of Service	D	**E**	A
Ellis Street	West of Country Club Drive	2-lane local street (4-lane in 2025)	Capacity	5,000	5,000	5,000
			Daily Volume	215	230	1,575
			Level of Service	A	A	A
Ellis Street	State Route 99 Overcrossing (2)	4-lane arterial	Capacity	--	--	--
			Daily Volume	--	--	--
			Level of Service	--	--	--

Source: Traffic Study for the Ellis Street Overcrossing, July 27, 2005
(1) Vehicles per day
(2) No data until after 2009

Table 1.2 shows the existing (2004) and predicted (construction year 2009 and design year 2025) conditions of the studied intersections during PM peak hour traffic, including level of service and the time vehicles must wait at the stop. In the year 2009, all of the intersections are predicted to experience acceptable traffic operations

without the project, except the Cleveland Avenue/Gateway Drive intersection, which is projected to operate at an unacceptable Level of Service E (shaded area).

Table 1.2 PM Peak Hour Intersection Level of Service (Existing and Predicted)

Location	Exiting Type of Control	Traffic Data	Existing 2004 Conditions	Predicted Conditions Without Project	
				2009	2025
Ellis Street/Country Club Drive	All-Way Stop	Average Delay[1]	14.7	21.1	>100
		Level of Service	B	C	**F**
Avenue 16/North Schnoor Avenue	Signal	Average Delay	10.7	12.8	34.3
		Level of Service	B	B	C
Avenue 16/State Route 99 Southbound Off-ramp[2]	All-Way Stop	Average Delay	12.8	19.5	68.1
		Level of Service	B	C	**F**
Avenue 16/State Route 99 Northbound Off-ramp	Two-way Stop	Average Delay	2.8	3.1	3.4
		Level of Service	A	A	A
Clark Street/ Country Club Drive[3]	Two-way Stop	Average Delay	17.9	29.0	>100
		Level of Service	C	D	**F**
West Cleveland Avenue/Schnoor Avenue	Signal	Average Delay	35.5	46.0	>100
		Level of Service	D	D	**F**
Cleveland Avenue/ State Route 99 Southbound Off-ramp	Signal	Average Delay	16.1	16.5	36.9
		Level of Service	B	B	D
Cleveland Avenue/State Route 99 Northbound On-ramp	Signal	Average Delay	11.8	13.4	18.9
		Level of Service	B	B	B
Cleveland Avenue/Gateway Drive	Signal	Average Delay	41.9	58.7	>100
		Level of Service	D	**E**	**F**
Cleveland Avenue/Sharon Road	Signal	Average Delay	24.2	28.0	>100
		Level of Service	C	C	**F**
Sherwood Way/Country Club Drive	Signal	Average Delay	22.0	24.5	85.1
		Level of Service	C	C	**F**

Source: *Traffic Study for the Ellis Street Overcrossing, July 27, 2005*

1. *Average Delay = wait in seconds per vehicle at stop*
2. *This intersection has been changed to a single-stop at the southbound off-ramp since the study was completed*
3. *Represents approach with the most delay*

Without the project in the year 2025, it is predicted that six intersections would have an unacceptable Level of Service "E" or "F":

- Ellis Street/Country Club Drive
- Avenue 16/State Route 99 southbound off-ramp
- Clark Street/Country Club Drive
- West Cleveland Avenue/Schnoor Avenue
- Cleveland Avenue/Gateway Drive
- Cleveland Avenue/Sharon Road

1.2.2.2 Traffic Operations

The proposed project is needed to increase capacity of the City of Madera's circulation network and elevate Ellis Street to an arterial street. Currently, traffic must use Country Club Drive, Cleveland Avenue, and Gateway Drive for an east-west route. An additional link across State Route 99 is needed because east-west traffic coming from the north must use the Cleveland Avenue/Gateway Drive/Avenue 16 intersection and the Cleveland Avenue/Country Club intersection to access services.

The lack of a roadway over the railroad tracks at Avenue 16 increases travel time for east-west travelers and limits access to State Route 99 for residents living on the east side of the freeway. East-west travelers are forced into using Avenue 17 to the north, or Country Club to Cleveland Avenue on the south to cross to the other side of the railroad tracks. The same holds true for the residents on the west side of State Route 99 who want access to the freeway. The proposed project would provide a direct access via Ellis Street and Avenue 16.

1.2.2.2 Local Traffic Circulation

There is no alternate route to shopping and public resources for residents living in the project area, which is north of the City of Madera. Under the current conditions, there is no available route to cross State Route 99 and the Union Pacific Railroad tracks between Avenue 17 and Cleveland Avenue, a two-mile segment of State Route 99. Traffic from these areas must use Country Club Drive (also known as Road 26) to enter the City of Madera or gain access to the freeway and other surrounding areas. Figure 1-4 shows the existing circulation network of the northwest area of Madera.

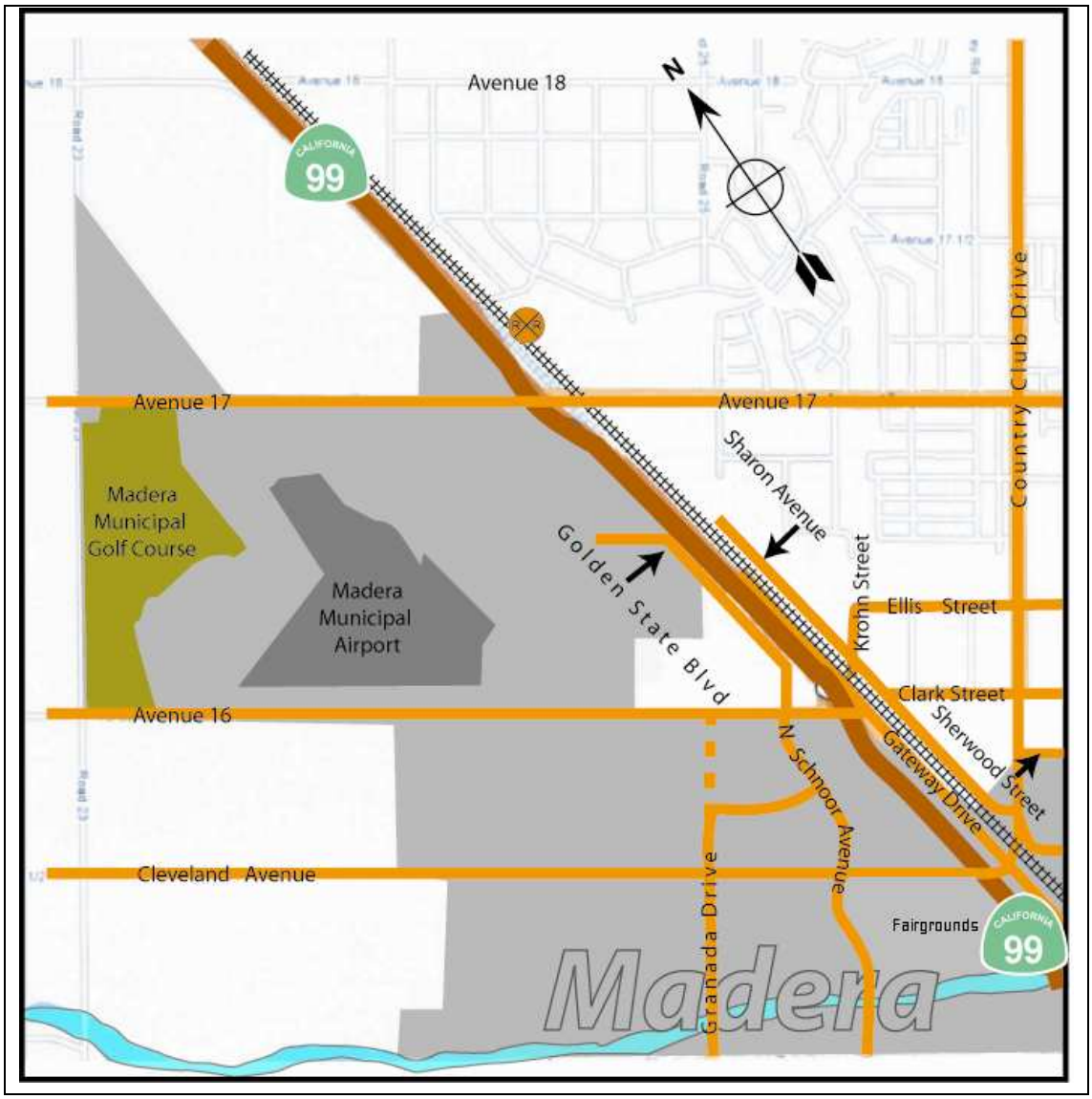

Figure 1-4 Existing Circulation Network

Traffic east of State Route 99, along Country Club Drive (Road 26), is generated from several areas. The area between Cleveland Avenue and Avenue 17 is highly developed with several automobile dealerships and a shopping mall with retail stores and eateries. East of the mall, the residential development is dense with single-family houses, apartments, and several churches. The Fresno River forms a natural border to the south and crossings are limited. In order to access State Route 99, the traffic generated from this area must travel south on Country Club Drive (Road 26) to Cleveland Drive or travel north to Avenue 17. Ellis Street is located east of State Route 99 between Krohn Street and Country Club Drive. All of the residents in this

rural-residential area living along Sharon Drive, and the streets of Clark, Krohn, and Ellis must exit onto Country Club Drive.

West of State Route 99, south of Avenue 17, several commercial warehouses and a small industrial complex separate State Route 99 and the Madera Municipal Airport. Businesses in this area have no exit and are limited to Avenue 17 as an entrance and exit. West of the airport, in the southeast corner at Avenue 17 and Road 23, is the Madera Municipal Golf Course. The golf course runs south to Avenue 16. Currently, westbound traffic on Avenue 16 is temporarily blocked off and dead-ends near the Madera Municipal Airport.

The area immediately surrounding the project along Avenue 16 has a mix of residential, commercial and other development. A mobile home/recreational vehicle park and a few rural residences sit between the airport and Golden State Boulevard, north of Avenue 16; the mobile home/recreational vehicle park is outside the project limits, however. Along Golden State Boulevard, which runs north from Avenue 16 before it turns west and dead-ends, are a few commercial properties and service businesses. The residents along Avenue 16 have direct access to State Route 99 from Avenue 16 but if they want to use local roads to travel south, they must use Gateway Drive and Schnoor Avenue, which all exit on Cleveland Avenue.

North and south of Avenue 16 at Schnoor Avenue are several retail and commercial businesses and motels, including Starbucks, Home Deport, Days Inn, and Holiday Inn Express. The public gains access to this area via State Route 99, Gateway Drive, or Schnoor Avenue, all which intersect Avenue 16 or Cleveland Avenue.

Along Schnoor Avenue, which runs south from Avenue 16, are several residential developments on the west and commercial properties on the east (between Schnoor Avenue and State Route 99). At the intersection of Schnoor Avenue and Cleveland Avenue, the area is highly developed in commercial and retail businesses. The Madera County Fairgrounds is south of Cleveland Avenue, near State Route 99. The public gains access to this area from the north via State Route 99, Avenue 16 and Schnoor Avenue. Eastern and western access is via Cleveland Avenue. Access from the south is limited because the Fresno River is located to the south and crossings are limited to Schnoor Avenue and Granada Drive.

1.3 Alternatives

This section describes the proposed action and the design alternatives that were developed and evaluated by an interdisciplinary team to achieve the project purpose while avoiding or minimizing environmental impacts.

1.3.1 Build Alternative

The Build Alternative proposes to connect Avenue 16 with Ellis Street by constructing an overcrossing from Ellis Street that would cross over State Route 99—as well as the Union Pacific Railroad tracks, Golden State Boulevard, and Sharon Avenue—before connecting with Avenue 16. The overcrossing would have a minimal clearance of 25 feet above State Route 99; clearance above the railroad tracks would be a minimum of 24.5 feet. The cost for the Build Alternative is expected to be $20.6 million. Additional right-of-way would be acquired for the overcrossing from Ellis Street to Avenue 16, Kennedy Street, and Swanson Way (at a later date), without displacing any residents or commercial businesses.

The project includes the following circulation network improvements:

- Widen Ellis Street within the existing right-of-way from west of the canal bridge (west of Country Club Drive) to Krohn Street by constructing two 12-foot travel lanes with shoulders ranging from 5 feet to 14 feet.
- Construct a new connector or roadway, called Kennedy Street, to connect the Ellis Street extension with Schnoor Avenue.
- Provide four 12-foot travel lanes, a raised median that would vary from 4 feet to 12 feet, a 5-foot bike lane, and sidewalks on both sides for the new Ellis Street alignment between Granada Drive and Krohn Street.
- Provide four 12-foot travel lanes, a 14-foot raised median, a 5-foot bike lane, and a 5-foot sidewalk on both sides of Kennedy Street between Ellis Street/Avenue 16 and Schnoor Avenue and the pavement transition improvements on Kennedy Street between Schnoor Avenue and the State Route 99/Avenue 16 interchange.

1.3.2 No-Build Alternative

The No-Build Alternative would leave Avenue 16 and Ellis Street within the project area in its existing condition. No road crossing over State Route 99 would be constructed, and the only available routes across State Route 99 and the Union Pacific Railroad tracks in the northeastern part of the city would be Cleveland Avenue and Avenue 17. This alternative would represent a continuation of existing conditions.

Traffic congestion would continue and over time would increase due to the planned growth in the area. Traffic operations would not accommodate planned growth, and the limited traffic circulation within the community would continue.

1.3.3 Comparison of Alternatives

After comparing and weighing the benefits and impacts of all of the feasible alternatives, the project development team has identified the Build Alternative as the recommended alternative, subject to public review. Final identification of the preferred alternative will occur after the public review and comment period.

Criteria for evaluating alternatives include project purpose and need issues, and potential environmental effects of the proposed project. The comparison in Table 1.3 shows that the Build Alternative would reduce congestion, meet future traffic needs, improve safety, and provide network connectivity.

After the public circulation period, all comments will be considered, and the City of Madera and Caltrans will make the final determination of the project's effect on the environment. In accordance with the California Environmental Quality Act, if no unmitigable significant adverse impacts are identified, the City of Madera will prepare a Negative Declaration or Mitigated Negative Declaration. Similarly, if Caltrans determines the action does not significantly affect the environment, Caltrans, as assigned by the Federal Highway Administration, will issue a Finding of No Significant Impact in accordance with the National Environmental Policy Act.

1.3.4 Preferred Alternative

The preferred alternative is the Build Alternative. It is the only alternative that meets the need for the project to reduce traffic congestion and traffic volume needs.

Table 1.3 Comparison of Alternatives

Evaluation Criteria	Build Alternative	No-Build Alternative
Reduces current and future congestion at the Cleveland Avenue/Gateway Drive/ Country Club Drive intersection during peak hours	Provides an alternate route that diverts traffic from the existing intersections and meets future demands	Provides no reduction in congestion
Improves traffic operations on state and local roadways in the northeastern part of Madera	Decreases travel time and wait time at intersections, and provides an alternate route for access onto State Route 99	Does not accommodate traffic future demand
Improves traffic circulation for local residents needing to cross Sate Route 99 and the Union Pacific Railroad tracks	Creates a continuous roadway for traffic, pedestrians, and bicyclists across State Route 99 and the Union Pacific Railroad tracks	No improvement to local traffic circulation
Land Use	Consistent with city and county land use plans	Inconsistent with local plans
Growth	Does not influence growth, but is consistent with planned growth	Does not support planned growth
Community Impacts	Does not disproportionately affect minority or low-income minorities; promotes community cohesion	Does not promote community cohesion
Utilities/Emergency Services	Temporary disturbance to utilities during construction; provides additional route across freeway and railroad tracks for emergency response vehicles	Slows down emergency response time
Traffic and Transportation/ Pedestrian and Bicycle Facilities	Provides alternate route for traffic, pedestrians, and bicyclist across freeway and railroad tracks	No change
Air Quality	Air quality would be expected to get better with less idling time at intersection	No change

1.3.5 Alternatives Considered and Withdrawn

The overcrossing proposal had two design variations that were considered and withdrawn, mainly due to cost. Structural design variations considered but withdrawn include the following:

- Variation 1 – This variation included a seven-span, cast-in-place, pre-stressed, concrete box girder bridge approximately 606 feet long and 73 feet wide with varying structure depth (with a more shallow depth over the Union Pacific Railroad right-of-way). The overcrossing structure included four 12-foot lanes, a 4-foot median, 5-foot bicycle lanes and 5-foot sidewalks.
- Variation 2 – This variation included a six-span, cast-in-place, pre-stressed, concrete box girder bridge approximately 606 feet long and 73 feet wide, with a pre-cast, pre-stressed, concrete “drop-in” section over the railroad (uniform structure depth across all spans). The overcrossing structure included four 12-foot lanes, a 4-foot median, 5-foot bicycle lanes and 5-foot sidewalks.

1.4 Permits and Approvals Needed

The following permits, reviews, and approvals would be required for project construction:

Table 1.4 Permits and Approvals Needed

Agency	Permit/Approval	Status
Regional Water Quality Control Board	Water Discharge Permit	Application pending approval of the project
County of Madera	Encroachment Permit and Abandoned Well Permits	Application pending approval of the project
City of Madera	Encroachment Permit	Application pending approval of the project
Madera Irrigation District	Encroachment Permit	Application pending approval of the project
California Public Utilities Commission	Railroad Crossing Structure	Application pending approval of the project
United States Bureau of Reclamation	Encroachment Permit	Application pending approval of the project

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Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

This chapter explains the impacts that the project would have on the human, physical, and biological environments in the project area. It describes the existing environment that could be affected by the project, potential impacts from each of the alternatives, and proposed avoidance, minimization, and/or mitigation measures. Any indirect and cumulative impacts are included in the general impacts analysis and discussions that follow.

As part of the scoping and environmental analysis conducted for the project, the following environmental issues were considered, but no adverse impacts were identified. Consequently, there is no further discussion regarding these issues in this document.

- Parks and Recreation – No parks or recreation facilities were identified within the proposed project area.
- Farmlands/Timberlands – No timberlands exist within the project limits. Consultation with the U.S. Department of Agriculture Natural Resources Conservation Service Center determined that no farmland exists within the project area (see Appendix G).
- Cultural Resources – No cultural resources were identified within the proposed project limits (Historic Property Survey Report, May 2006).
- Hydrology and Floodplain – The proposed project is not in the 100-year floodplain; therefore, no floodplain impact would occur (Location Hydrology Report, October 2006).
- Hazardous Waste or Materials – A site assessment performed for the project area in June 2005 determined that the area had no evidence of any hazardous waste or materials (Limited Phase I Environmental Site Assessment, June 2005).
- Natural Communities – No natural communities of special concern were identified in the project area (Natural Environment Study, April 2006).

- Plant Species – No special-status plant species were identified in the project area (Natural Environment Study, April 2006).

2.1 Human Environment

2.1.1 Land Use

2.1.1.1 Existing and Future Land Use

Affected Environment

The project lies north of the City of Madera, but portions of the project area are within the City's sphere of influence. The area south of Avenue 16 and west of State Route 99 is City-owned property (see Figure 2-1).

From the freeway west to Granada Drive, the zoning varies from Service Commercial (SC), Neighborhood Commercial (NC) to Low-Density Residential (LD). West of Granada Drive, the area is designated as Resource Conservation (RC), which is used for agriculture, the Fresno River, canals and drainage basins. This area is part of the Runway Protection Zone established for the Madera Municipal Airport north of Avenue 16.

The remaining project area is under the jurisdiction of Madera County. East of State Route 99, the county designated a linear strip of property north of Cleveland Avenue and parallel to Sharon Avenue as Landscaped Open Space Corridor and Buffer (OSC). East of this zone, extending to the Madera Irrigation District's canal on both sides of Ellis Street, the area is zoned as Very Low-Density Residential (VLD) (1-2 units per net acre with a minimum site area of 20,000 square feet or almost one-half acre per unit).

West of State Route 99 and north of Avenue 16, the area west of Golden State Boulevard is zoned Industrial (I) and Service Commercial (SC); east of Golden State Boulevard, closer to State Route 99, the area is zoned Highway Commercial (HC).

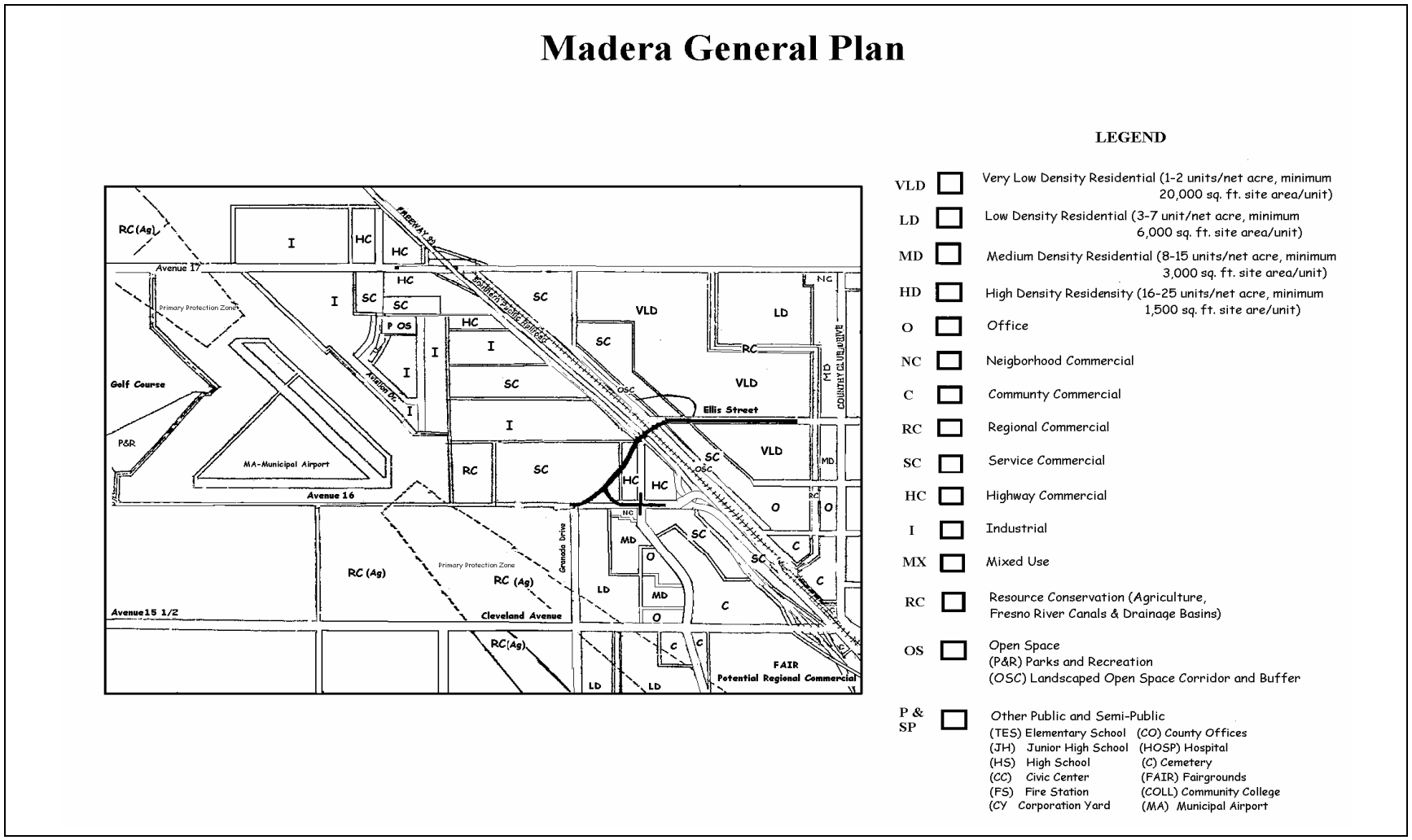


Figure 2-1 Project Area Zoning

Although the immediate area surrounding the project is intermixed with a few commercial and rural-residential properties, the area east and north of the project is highly developed and produces heavy traffic volumes. North of the City of Madera, between Avenues 17 and 19, are several housing developments, including Madera Acres. According to the 2000 U.S. Census, Madera Acres had a population of 7,741 people, with 2,122 households. Also in this area is the Madera Golf and Country Club. Traffic from these areas must use Country Club Drive (also known as Road 26) to enter the City of Madera, or motorists can turn west on Avenue 17 and take State Route 99.

At the intersection of Country Club Drive and Cleveland Avenue sit several automobile dealerships and a mall with retail stores and places to eat. East of the mall, between Ellis Street and the Fresno River, residential development is very dense, with single-family homes, apartments, and several churches.

West of State Route 99, south of Avenue 17, several commercial warehouses and a small industrial complex separate State Route 99 and the Madera Municipal Airport. West of the airport, in the southeast corner of Avenue 17 and Road 23, is the Madera Municipal Golf Course. Avenue 16 borders the golf course on the south.

Only a few rural residences sit along Avenue 16, east of the golf course. A mobile home/recreational vehicle park lies just west of Golden State Boulevard. Residents living along Avenue 16 use Gateway Drive, but the residents in the northwest area must use Avenue 17 to access the freeway or Country Club Drive to access services. They can also travel south on Road 23 to Avenue 16 to access the freeway or Gateway Drive to go to Cleveland Avenue.

West of State Route 99, at Avenue 16, are several retail and commercial businesses and motels, including Starbucks, Home Depot, Days Inn, and Holiday Inn Express. A large shopping center (retail and restaurants) sits on the north side of Cleveland Avenue, and the Madera County Fairgrounds lies on the south side of Cleveland Avenue.

According to the Madera Economic Development Commission, plans are underway for a “Super” Target to be constructed at the northeast corner of Avenue 17 and State Route 99. Opposite this site on the west side of the freeway is the proposed site for a Tribal Casino sponsored by the North Fork Mono Rancheria.

Environmental Consequences

The project is included in the City of Madera's General Plan Circulation Element, is consistent with the General Plan of the County of Madera, and is consistent with existing and future land use. The project is also consistent with state, regional and local plans as indicated by the inclusion of the project in the Regional Transportation Plans and the Regional Transportation Improvement Program.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are needed.

2.1.1.2 Consistency with State, Regional, and Local Plans

Affected Environment

Regional Plans

According to the Madera General Plan, the Madera County Transportation Commission (MCTC) is responsible for preparing and updating a Regional Transportation Plan (RTP) every two years. The Regional Transportation Plan identifies the transportation needs of the Madera County region, proposes a program of capital and operating improvements, and recommends a package of revenue increases to fund the proposed program. The Ellis Street Overcrosssing project is included in Madera County's 2007 Regional Transportation Plan.

General and Community Plans

The project is located within Madera City's Sphere of Influence as adopted by the Madera County Local Agency Formation Commission (LAFCO). The Sphere of Influence boundaries include all of the area within the existing city limits, the area that is expected to urbanize over the next 20 years (and which for the most part will be annexed), and the unincorporated territory of the county where various types of development may be proposed to the County, which will have an influence on the interest of the City.

In addition, the project also is located within the City's Urban Development Boundary (UDB), which serves to indicate the unincorporated areas which the City, County, and Local Agency Formation Commission feel that urban development is expected to occur over the next five years, and where proposals for development will be accepted and approved on the assumption of annexation to the City.

Transportation Plans

The project is included in Madera County's 2007 Regional Transportation Plan and is included in the Madera County Transportation Commission's financially constrained 2007 Regional Transportation Improvement Program, including Amendment 2.

Environmental Consequences

The project is consistent with the General Plans of the City and County of Madera, and with state, regional and local plans.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are needed.

2.1.2 Growth

Regulatory Setting

The Council on Environmental Quality regulations, which implement the National Environmental Policy Act of 1969, require evaluation of the potential environmental consequences of all proposed federal activities and programs. This provision includes a requirement to examine indirect consequences, which may occur in areas beyond the immediate influence of a proposed action and at some time in the future. The Council on Environmental Quality regulations, 40 Code of Federal Regulations 1508.8, refer to these consequences as indirect impacts. Indirect impacts may include changes in land use, economic vitality, and population density, which are all elements of growth.

The California Environmental Quality Act also requires the analysis of a project's potential to induce growth. California Environmental Quality Act guidelines, Section 15126.2(d), require that environmental documents "…discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment…."

Affected Environment

Only the project area that is located south of Avenue 16 and west of State Route 99 falls within the city limits of Madera. From east to west along Avenue 16 to Granada Drive, the zoning designation is Service Commercial, Neighborhood Commercial, and Low-Density Residential (3-7 units/homes per 6,000 square feet). The project does not include improvements west of Granada Drive where a large

parcel of property is designated as Resource Conservation (agriculture, Fresno River, canals and drainage basins) and is part of the Runway Protection Zone established for the Madera Municipal Airport north of Avenue 16. Figure 2.2 provides the future plans for the surrounding area of the City of Madera.

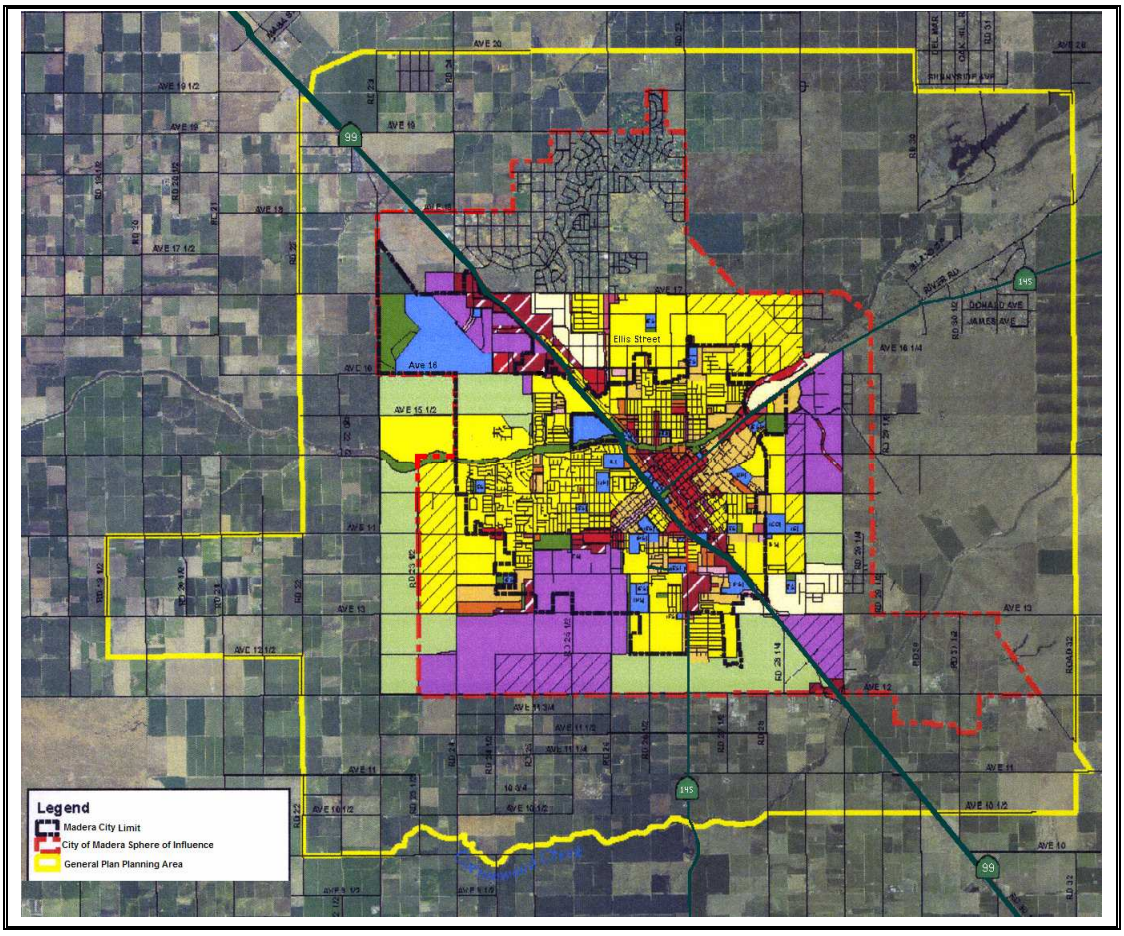


Figure 2-2 Madera City's Planned Growth

Under the jurisdiction of Madera County, the project area between Avenues 16 and 17 immediately facing State Route 99 is zoned as either Service Commercial, Industry, or Highway Commercial, except for a linear strip of property parallel to Sharon Avenue on the east side of State Route 99 that is designated as Open Space Corridor. Only the area along Ellis Street between Krohn Street and the Madera Irrigation District's canal is zoned for rural residential development, and housing development is restricted to one unit/house per 20,000 square feet (almost one-half acre).

Environmental Consequences

The project would provide an additional east-west access to all these areas, which have been lacking a crossing over the freeway and railroad tracks. The project would be expected to have a great influence on planned commercial and residential growth in these areas by providing an alternate route besides the congested intersection of Cleveland Avenue/Country Club Drive.

Project-related growth is reasonably foreseeable given the zoning designations established by the City and County of Madera. It would be expected that commercial and industrial properties in the area would become more desirable due to the convenient access provided by the project.

No resources of concern would be affected by the planned growth foreseen by the City and County of Madera and established by the zoning designations and General Plans. According to Madera City's General Plan, land use proposals of the General Plan have been devised to avoid the potential for adverse impacts on the environment, and environmental resources within their planning area are essentially limited to the Fresno River channel (far south of the project) and to prime agricultural lands to the south and west of the community (City of Madera). The Madera County General Plan states the County shall minimize the adverse impacts of road construction and vehicular traffic on the environment and adjacent land uses. No further growth analysis is warranted.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are needed.

2.1.3 Community Impacts

2.1.3.1 Community Character and Cohesion

Regulatory Setting

The National Environmental Policy Act of 1969, as amended, established that the federal government use all practicable means to ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings [42 United States Code 4331(b)(2)]. The Federal Highway Administration in its implementation of the National Environmental Policy Act [23 United States Code 109(h)] directs that final decisions regarding projects are to be made in the best overall public interest. This requires taking into account adverse environmental

impacts, such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

Under the California Environmental Quality Act, an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the physical change is significant. Since this project would result in physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the project's effects.

Affected Environment

The project crosses through areas intermixed with rural residential housing developments and commercial businesses. Most of the homes in the project area are owner-occupied, and there were no ethnic or low-income communities identified within the project area. The project area has no churches, schools, or public community buildings nearby to help promote cohesion among the small number of residents in the area.

On the west side of State Route 99, the project affects 15 property parcels and travels through mostly rural residential properties and vacant commercial lots. Only two of the 15 parcels are larger than 2.5 acres (about 4.9 and 5.0 acres); the remaining parcels are all less than 2.5 acres. Seven of the 15 parcels are vacant. All of the area north of Avenue 16 within the project limits is zoned Industrial, Service Commercial or Highway Commercial. All the residential properties north of Avenue 16 are located within an area zoned Service Commercial.

The Country Living Mobile Home and RV Park, which is zoned Regional Commercial, borders the project on the west, but is outside the project limits. The mobile home/recreational vehicle park is bordered on the west by the Madera Municipal Airport, which extends from Avenue 16 to Avenue 17. The Madera Municipal Golf Course borders the airport on the west and also extends from Avenue 16 to Avenue 17.

On the east side of State Route 99, the project affects five property parcels. Two 5-acre parcels are vacant, and the other three rural residential parcels range from 1 acre to 8 acres. More urban housing with smaller lots surrounds the project area farther north and south of Ellis Street. To the east of Country Club Drive are several churches and a school.

Environmental Consequences

By providing an alternate route across State Route 99 and the railroad tracks, the project is expected to result in positive impacts to the residents of the area. It would enhance the quality of life by increasing public access to services on both sides of State Route 99 and by providing an additional route to access public services and facilities within the city. The new access would have an influence on commercial and residential growth in these areas, and commercial and industrial properties in the area would be expected to become more desirable.

The project would not divide any neighborhood and would not separate residences from any community facilities or promote isolation of any residential development.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are needed.

2.1.3.2 Relocations

Regulatory Setting

Caltrans' Relocation Assistance Program is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and Title 49 Code of Federal Regulations, Part 24. The purpose of the Relocation Assistance Program is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. See Appendix C for a summary of the Relocation Assistance Program.

All relocation services and benefits are administered without regard to race, color, national origin, or sex in compliance with Title VI of the Civil Rights Act (42 United States Code 2000d, et seq.). See Appendix B for a copy of Caltrans' Title VI Policy Statement.

Affected Environment

The portion of the project area west of State Route 99 is in the unincorporated area of Madera County and is designated by Madera County's General Plan for commercial and industrial development. Existing development includes motels, restaurants, and regional or "big box" stores. Other established small businesses include towing, auction yard, self-storage, agricultural irrigation, and auto repair

services. The immediate project area, however, skirts most of the existing commercial development.

On the north side of Avenue 16, just west of the Granada Drive (Road 25) alignment, there is a mobile home/recreational vehicle park. Within its complex, the mobile home park has about 60 spaces for mobile homes and about 50 spaces for smaller travel trailers. Local road improvements (paving) begin within the existing right-of-way on Avenue 16 in front of the mobile home/recreational vehicle park entrance. Along Avenue 16, between the mobile home/recreational vehicle park and Schnoor Avenue, are seven parcels of property: five residential parcels, one commercial parcel, and one vacant parcel.

Along the west side of Schnoor Avenue, only one parcel is a commercial business; the rest are vacant lots. Where Schnoor Avenue turns northwest and becomes Golden State Boulevard, there are several service commercial businesses. Between Schnoor Avenue and the freeway is the Day's Inn Motel. Madera County zoning designation for all of this area is Commercial or Industrial.

On the south side of Avenue 16, which is within the Madera City limits, the project is bordered by the Madera Irrigation District's canal. No right-of-way would be needed from this area.

On the east side of State Route 99, the vicinity of the project area is in an unincorporated portion of Madera County, but within the City of Madera's sphere of influence. The Madera County and City General Plans describe this area as low-density residential development. The area has a limited development capacity due to poor access and lack of municipal services.

The project would pass through vacant fields until it reaches Ellis Street, which is scattered with rural-residential development and farm-related structures: barns, associated outbuildings, and livestock pens. All improvements along Ellis Street would be completed within the existing right-of-way.

Environmental Consequences

The project would require 11.2 acres of new right-of-way from 22 property parcels: seven rural-residential parcels, nine vacant-property parcels, four commercial businesses, and right-of-way along the Union Pacific Railroad tracks and the Madera Irrigation District canal. No residential or commercial structures would need relocation.

Most of the right-of-way needed would be from linear slivers of property adjacent to the existing roadways or corners of property parcels. However, approximately five parcels would be split diagonally, resulting in the full acquisition of at least one parcel. Some of the split parcels are vacant, and others are open fields with homes located somewhere on the parcel. No businesses or residences would be relocated as a result of the proposed project, but some driveways may need to be moved several feet. No driveway relocation would require a frontage road or a move of any great distance.

A permit to occupy a portion of the parcel owned by the United States of America, under the jurisdiction of the Madera Irrigation District and the US Bureau of Reclamation, is in progress for the City of Madera's Linear Park Project and a portion of Avenue 16 and Kennedy Street in the Ellis Street Overcrossing Project.

Table 2.1 shows the estimated acreage needed from each parcel, the current land use, and whether the acquisition would be full or partial.

Table 2.1 Estimated Right-of-Way Needed for Project

#	Area Parcel Number	Total Area (Acres)	Total Area Needed (Acres)	Residence, Business, or Vacant	Full or Partial Acquisition
Area West of State Route 99					
1	033-150-06	5.000 Acres	0.3316 Acre	Vacant	Partial
2	033-150-10	2.330 Acres	0.4450 Acre	Vacant	Partial
3	033-150-11	2.330 Acres	0.8147 Acre	Residence	Partial
4	033-150-12	2.330 Acres	0.9277 Acre	Residence	Partial
5	033-150-13	2.330 Acres	0.6217 Acre	Business	Partial
6	033-150-23	1.090 Acres	0.0128 Acre	Residence	Partial
7	033-150-24	0.910 Acre	0.1228 Acre	Residence	Partial
8	033-150-26	1.040 Acres	0.0608 Acre	Business	Partial
9	033-150-27	1.980 Acres	1.980 Acres	Vacant	Full
10	033-150-16	4.720 Acres	0.0091 Acre	Vacant	Partial
11	033-150-19	0.410 Acre	0.1799 Acre	Vacant	Partial
12	033-150-33	2.380 Acres	0.0830 Acre	Business	Partial
13	013-230-01	1.000 Acre	0.4408 Acre	Business	Partial
14	013-230-002	1.000 Acre	0.0596 Acre	Vacant	Partial
15	013-230-005	1.000 Acre	0.0850 Acre	Vacant	Partial
Area East of State Route 99					
16	038-050-06	8.119 Acres	0.0385 Acre	Residence	Partial
17	038-050-08	4.990 Acres	1.9554 Acres	Residence	Partial
18	038-050-09	5.310 Acres	0.5540 Acre	Vacant	Partial
19	038-050-10	0.970 Acre	0.0279 Acre	Residence	Partial
20	038-060-21	5.000 Acres	1.0000 Acre	Vacant	Partial
Other					

21	None	N/A	0.2863 Acre	Railroad	Partial
22	None	N/A	0.7888 Acre	Canal	Partial

The acquisition of linear slivers of property needed for the project would not contribute to adverse cumulative impacts to the community. The project would enhance local traffic circulation and provide an additional route across State Route 99, thereby adding to community cohesion.

Avoidance, Minimization, and/or Mitigation Measures

A process would be initiated, consistent with federal and state law, for the acquisition of land for the proposed project. This process includes the appraisal of the land by a qualified appraiser and the establishment of a fair market value for the land to be acquired, which would be offered to the property owner.

2.1.4 Environmental Justice

Regulatory Setting

All projects involving a federal action (funding, permit, or land) must comply with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, signed by President Bill Clinton on February 11, 1994. This executive order directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based on the Department of Health and Human Services poverty guidelines. For the year 2000, this was $17,463.00 for a family of four, which has increased to $20,650 in the year 2007.

All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have also been included in this project. Caltrans' commitment to upholding the mandates of Title VI is evidenced by its Title VI Policy Statement, signed by the Director, which can be found in Appendix B of this document.

Affected Environment

To comply with Executive Order 12898, a Community Characteristics and Environmental Justice Technical Document was completed for the project in March 2005. The area immediately surrounding the project contains about 75 homes, including approximately 25 mobile homes located in the Country Living Mobile Home and RV Park. There are no churches, parks, schools, or community centers

within several miles of the project. The project cuts through rural residential parcels and commercial properties west of State Route 99 and rural residential properties on the east side of State Route 99.

Data from the 2000 U.S. Census was used to complete demographic research of the project area. The 2000 U.S. Census provides demographic data by Census Tract, Block Groups, and Blocks. *Census Tracts* are very large areas with populations ranging from 1,000 to 8,000 people that are further broken down into *Block Groups* containing multiple *Block* units. Blocks are the smallest areas and may correspond to individual city blocks bounded by streets (see Figure 2.3).

Figure 2-3 2000 U.S. Census Tract Map

In addition, field reviews were completed in and around the project area to help identify residential development not readily apparent in the census data.

The project passes through three Census Tracts, three Census Block Groups, and seven Blocks:

- Census Tract 5.03, Block Group 3, Block 3001 begins north of Avenue 16 between State Route 99 and Golden State Boulevard. It runs north and includes a thin linear strip of property running northwest between Golden State Boulevard and State Route 99. This Block includes commercial businesses, but reported a population of one.

- Census Tract 5.03, Block Group 3, Block 3002 includes a small square within Block 3001 north of Avenue 16 between State Route 99 and Golden State Boulevard. This Block includes a commercial business and reported no population; therefore, it was not included in the analysis for the project.

- Census Tract 5.03, Block Group 3, Block 3004 includes a large area north of Avenue 16 between Golden State Boulevard and the property line belonging to the Madera Municipal Golf Course. The Country Living Mobile Home and RV Park is included in this Block.

- Census Tract 5.06, Block Group 2, Block 2025 does not have "square" borders, but zigzags around the residential areas south of Avenue 17, which is the most northern border. On the east and west, the Block is bordered by State Route 99 and Country Club Drive north of Ellis Street and includes the area west of Krohn Street. This Block includes residential development outside the project limits just south of Avenue 17.

- Census Tract 5.07, Block Group 1, Blocks 1020, 1021, and 1022 are bordered by Ellis Street on the north, Krohn Street on the west, Country Club Drive on the east, and W. Adell Street on the south. These areas are not directly affected by the project, but are adjacent to the existing right-of-way.

Data on ethnic or racial makeup of the project area were based on Census Blocks into which the project would encroach, whether the project would affect only a small percentage of the total area of the Census Block or the entire block. Table 2.2 compares the ethnic or racial makeup of the project area, the City of Madera, and Madera County.

Table 2.2 Ethnicity Data

2000 U.S. Census Bureau State and County *Quick Facts*	City of Madera	County of Madera	Census Tract					
			5.03		5.06	5.07		
			Block Group 3		Block Group 2	Block Group 1		
			3001	3004	2025	1020	1021	1022
Population, 2000	**43,207**	**146,345**	***1***	***81***	***82***	***19***	***10***	***3***
One race	40,763	140,586	1	79	78	17	9	2
White	20,804	112,675	1	70	44	8	1	2
Black or African American	1,665	5,231	0	0	2	4	1	0
American Indian or Native American	1,207	1,755	0	1	2	2	1	0
Asian	618	2,991	0	0	0	0	0	0
Native Hawaiian or Other Pacific Islander	44	0	0	0	0	0	0	0
Some Other Race	16,425	17,934	0	8	30	3	6	0
Total of one race	40,763	140,586	1	79	78	17	9	2
Two or more races	2,444	5,759	0	2	4	2	1	1
TOTAL POPULATION	***43,207***	***146,345***	***1***	***81***	***82***	***19***	***10***	***3***
A - Hispanic or Latino (of any race)	29,274	72,042	0	22	42	13	8	0
B - Not Hispanic or Latino	--	--	1	59	40	6	2	3
(White Alone)	--	--	(1)	(57)	(36)	(1)	(1)	(0)
TOTAL (A + B)	--	--	***1***	***81***	***82***	***19***	***10***	***3***

The total population of the Census Tract Blocks used in the analysis was 196. Table 2.3 shows the percentage of each ethnic or racial group within the project area compared to the City and County of Madera.

All categories of race and ethnicity are represented in the City and County of Madera but, within the project study area, there are no Asians or Native Hawaiian or Pacific Islanders reported.

White and Hispanic/Latino populations are dominant, but the Hispanic/Latino population is lower than the City and County percentage. The City of Madera's Hispanic/Latino population represents 67.8 percent of the total population; the County's percentage is lower at 49.2 percent; and the project area percentage is lower than both at 43.7 percent. The City's White population represents 48.1 percent of the total population; the County's percentage is much higher at 77 percent; and the project area percentage is in between at 64.3 percent.

The Black or African-American population is the same as the County percentage and less than the percentage of the City. The American Indian or Native American population is 1.8 percent higher than the County, but only 0.2 percent higher than the City's percentage.

Table 2.3 Percentage Comparisons

2000 U.S. Census Bureau State and County *Quick Facts*	**City of Madera Total Population = 43,207**	**County of Madera Total Population = 146,345**	**Project Area Total Population = 196**
	Percentage of Total Populations Represented		
One race	94.3	96.1	94.9
White	48.1	77.0	64.3
Black or African American	3.9	3.6	3.6
American Indian or Native American	2.8	1.2	3.0
Asian	1.4	2.0	0
Native Hawaiian or Other Pacific Islander	0.1	0	0
Some Other Race	38.0	12.3	24.0
Two or more races	5.7	3.9	5.1
Hispanic or Latino (of any race)	67.8	49.2	43.7

The U.S. Census does not provide income data in Blocks (the smallest area that can be reported), but data was provided for Block Groups. Table 2.4 compares the data for median family income and for families living below poverty levels for the groups within the project area and the City and County of Madera.

Table 2.4 1999 Family Median Income

	County of Madera	**City of Madera**	**Census Tract 5.03 Block Group 3**	**Census Tract 5.06 Block Group 2**	**Census Tract 5.07 Block Group 1**
Median Family Income (1999 dollars)	$31,927	$39,226	$51,413	$44,102	$29,844
Families below poverty level	15.9%	25.6%	11.3%	7.5%	24%

Data recorded for Census Tract 5.07, Block Group 1 report a median family income less than the City and County average. The recorded number of families living below the poverty level for the same census area is 8.1 percent higher than the average recorded for the City of Madera, but less than the numbers recorded for the County of Madera.

The other Census Tract Block Groups recorded a median family income higher than that reported for the City and County of Madera and have fewer families living below the poverty level.

Environmental Consequences

Census Tract 5.07 Block 1, Blocks 1020-1022 are located south of Ellis Street between Krohn Street and Country Club Drive (see Figure 2-3, Census Tract Map), and is zoned Very Low Density Residential. This area appears to have a Native American/American Indian population that is slightly higher (0.2 percent) than the City of Madera's population and a higher number of families living below the poverty level. However, the residents living within this census area would not be adversely affected by the project. No right-of-way is needed from this segment of the project.

While the project would cause some short-term disruption of traffic during construction, no long-term detrimental traffic conditions are expected to occur because of the project. The area residents would benefit from a direct route to State Route 99, which would bypass the heavily used Country Club Drive and Cleveland Avenue intersections. Residents would also have access to pedestrian and bicycle routes over the freeway and railroad tracks, and they would have an alternate route to access services and businesses.

Avoidance, Minimization, and/or Mitigation Measures

Based on data research and field reviews, no minority or low-income populations have been identified that would be adversely affected by the proposed project as determined above. Therefore, this project is not subject to the provisions of Executive Order 12898.

2.1.5 Utilities/Emergency Services

A report was completed in March 2005 to address the project's impact to utilities and emergency services (Utilities/Emergency Services Technical Document, March 2005).

Affected Environment

According to the Utilities/Emergency Services Technical Document completed for the project in March 2005, the City of Madera operates domestic water wells and a distribution system, wastewater collection and treatment as part of its daily operation and maintenance responsibilities. The City provides major drainage facilities west of State Route 99 and contracts solid waste collection. The City provides municipal services and emergency services within the city limits only. Madera County provides law enforcement and fire services in the unincorporated territory. In addition, the City and the County contract with the California Department of Forestry for fire protection and prevention services.

Pacific Gas and Electric Company (PG&E) provides electrical and natural gas service. Underground electric lines are located within and adjacent to the project area. A major overhead transmission line crossing State Route 99 transects the project area. Natural gas distribution lines are also located in the project area, roughly paralleling the Union Pacific Railroad track right-of-way. Pacific Bell has existing facilities in the project area that include aerial, buried cable, and conduit.

Environmental Consequences

The proposed project would improve access for public safety personnel and equipment between the east and west sides of State Route 99. It would result in a beneficial impact to fire protection, law enforcement, emergency, and other public services by reducing existing and future congestion at the intersections of Cleveland Avenue/Gateway Drive/Country Club Drive and State Route 99/Cleveland Avenue and by providing an additional route across State Route 99 and the railroad tracks, which would provide better response times.

During construction, relocating utilities may require temporary construction easements and new permanent easements. The only anticipated impact on existing underground utilities is a possible conflict with the proposed storm drainage system. This may require raising, lowering, or realigning the existing water main on Avenue 16. Some overhead facilities, such as electrical, telephone, and cable television lines and their poles, would have to be relocated or placed underground at several locations due to the proposed roadway improvements.

Traffic delays for emergency vehicles would be minimal because the Build Alterative would be constructed on new alignment, but widening of the existing roadways could result in traffic delays during construction.

Avoidance, Minimization, and/or Mitigation Measures

A Traffic Management Plan would be developed to accommodate local traffic patterns and reduce delay, congestion, and accidents during construction. The plans and specifications for the project would include coordination with affected public utilities to minimize disruption of services to less than four hours on any given day, and include diligent efforts to provide utility customers with advance notice of any anticipated interruption in service.

2.1.6 Traffic and Transportation/Pedestrian and Bicycle Facilities

Regulatory Setting

Caltrans, as assigned by the Federal Highway Administration, directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 Code of Federal Regulations 652). It further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

Caltrans is committed to carrying out the 1990 Americans with Disabilities Act by building transportation facilities that provide equal access for all persons. The same degree of convenience, accessibility, and safety available to the general public will be provided to persons with disabilities.

Affected Environment

North of the City of Madera, the only available routes across State Route 99 and the Union Pacific Railroad tracks are Cleveland Avenue and Avenue 17. Avenue 16 crosses State Route 99, but does not cross the Union Pacific Railroad tracks. Once eastbound traffic on Avenue 16 crosses State Route 99, traffic either enters the freeway or merges onto Gateway Drive and travels southward to Cleveland Avenue. The traffic interchanges at State Route 99/Avenue 17 and State Route 99/Cleveland Avenue are congested at peak hours, and the level of service is projected to decrease to unacceptable levels in the future. An illustration of the roadways is provided in Figure 1-4, and a brief description of the key roadways is provided in the following text. Roadways west of State Route 99 include the following:

- Avenue 16 begins at the State Route 99/Avenue 16/Gateway Drive interchange and travels east and west serving the rural areas of northwest Madera. At State Route 99, eastbound Avenue 16 traffic merges with Gateway Drive, then goes south, paralleling the Union Pacific Railroad tracks on the east and State Route 99 on the west, until it intersects with Cleveland Avenue at the Avenue 16/Gateway Drive/Cleveland Avenue intersection.
- Golden State Boulevard begins at Avenue 16 and travels north to State Route 99 where it parallels the freeway before curving to the west and ends.
- Schnoor Street ends at Avenue 16 at the intersection of Avenue 16 and Golden State Boulevard. This roadway begins in southwestern Madera just north of Avenue 13 and is a major north-south route running through residential development on the west side of State Route 99.
- Cleveland Avenue is a major east-west roadway serving the areas of western Madera. At this roadway, there is an overcrossing of State Route 99 with north and south on- and off-ramps. The Cleveland Avenue/State Route 99 overcrossing is just west of the Avenue 16/Gateway Drive/Cleveland Avenue intersection and the Union Pacific Railroad tracks on the east side of State Route 99. Cleveland Avenue continues east, crosses the railroad tracks at an at-grade railroad crossing, then turns north and merges with Country Club Drive east of State Route 99.

Roadways east of State Route 99 include the following:

- Ellis Street begins at Krohn Street and goes east, crossing Country Club Drive and North Lake Street before ending at Chain Street. This street is rural (no curbs, gutters or sidewalks) and serves the low-density residential land uses west of Country Club Drive and the rapidly developing urban area east of County Club Drive.
- Sharon Avenue, north of Cleveland Avenue, runs in a northwestern direction parallel to and just east of the Union Pacific Railroad tracks. The northern segment of this roadway begins as an east-west access off of Country Club Drive north of Cleveland Avenue before turning north and serving residences facing the roadway. It is not part of the Cleveland Avenue/Country Club intersection. The roadway dead-ends north of Ellis Street.
- Krohn Street is only a short segment of the roadway in the project area. It runs north and south, beginning at Sharon Avenue and ending at Ellis Street.

- Gateway Drive is a two-lane road that begins at Cleveland Avenue and runs in a northwestern direction parallel to the Union Pacific Railroad tracks. The roadway separates the railroad tracks and State Route 99. At the Avenue 16/State Route 99 overcrossing, the roadway splits and traffic merges with Avenue 16 and crosses State Route 99 or it continues north and merges onto State Route 99.
- Country Club Drive is a north-south four-lane roadway serving a large retail/restaurant/auto mall and a fast-developing residential area to the north.
- Avenue 17 is a major east-west roadway serving northern Madera. This road provides the only access into the Madera Municipal Airport. The Madera Municipal Golf Course is west of the airport and bordered by Avenues 16 and 17 and Road 23.

An analysis was completed to determine the impact on traffic, transportation, pedestrian, and bicycle facilities (Traffic Study, July 2005). Traffic data were collected in the evening (PM) peak hour in February 2004. Analysis was performed for existing (2004), construction year (2009) and design year (2025) conditions showing what conditions would be like if the project were constructed. Data from the traffic analysis are also discussed in Chapter 1, Section 1.2.3, Tables 1.1 and 1.2.

Level of Service, or LOS, is an indicator of operating conditions on a roadway or intersection and is defined in categories ranging from “A” to “F” (see Figure 1-3 in Chapter 1). A Level of Service “A” for an intersection with traffic signals indicates uncongested operations, with all queues clear in a single-signal cycle (delays equal to or less than 10 seconds); a Level of Service “F” indicates an intersection in total breakdown or a stop-and-go operation (delays over 80 seconds). The City of Madera identifies Level of Service “D” as the operational threshold used to define acceptable operations at intersections with traffic signals. Level of Service “D” indicates minimal delays (over 25 seconds per vehicle but equal to or less than 35 seconds per vehicle). The study determined that all the roadways and intersections currently experience acceptable operations of Level of Service “D” or better.

Tables 2.5 and 2.6 show existing conditions of the roadways and intersections within the project limits. Table 2.5 provides the average daily traffic volumes and level of service for the roadways.

Table 2.5 Existing Average Daily Traffic Volumes and Level of Service

Roadway	Location	Type of Roadway	Capacity[1]	Daily Volume	Level of Service
Avenue 16	Schnoor Avenue to State Route 99	2-lane collector	9,000	7, 570	D
Avenue 16	State Route 99 Overcrossing	2-lane collector	9,000	7,680	D
Schnoor Avenue	South of Avenue 16	4-lane arterial	24,000	4,850	A
Gateway Drive	State Route 99 Northbound Ramps to West Cleveland Avenue	2-lane collector	9,000	7,775	D
Ellis Street	West of Country Club Drive	2-lane local street	5,000	215	A

Source: Traffic Study for the Ellis Street Overcrossing, July 27, 2005
(1) Vehicles per day

Table 2.6 provides the evening (PM) peak hour traffic and level of service for the intersections. The eleven intersections used in the analysis include two local streets on the east side of State Route 99:

- Sherwood Way is the first street north of West Cleveland Avenue. This 2-lane local road runs east from Country Club Drive through the mall and dense residential area before ending at North Lake Street just east of the Fresno River.
- Clark Street is located between Sherwood Way and Ellis Street. This 2-lane local road begins at Sharon Road and runs east across Country Club Drive and ends a couple of blocks later.

Table 2.6 Existing PM Peak Hour Intersection Level of Service

Location	Type of Control	Average Delay [2]	Level of Service
Ellis Street/Country Club Drive	All-way Stop	14.7	B
Avenue 16/North Schnoor Avenue	All-way stop	10.7	B
Avenue 16/State Route 99 southbound ramp	Single Stop[1]	12.8	B
Avenue 16/State Route 99 northbound ramp	Two-way Stop	2.8	A
Clark Street/Country Club Drive [3]	Two-way Stop	17.9	C
West Cleveland Avenue/Schnoor Avenue	Signal	35.5	D
Cleveland Avenue/State Route 99 southbound ramp	Signal	16.1	B
Cleveland Avenue/State Route 99 northbound ramp	Signal	11.8	B
Cleveland Avenue/Gateway Drive	Signal	41.9	D
Cleveland Avenue/Sharon Road	Signal	24.2	C
Sherwood Way/Country Club Drive	Signal	22.0	C

Source: Traffic Study for the Ellis Street Overcrossing, July 27, 2005
(1) This intersection has been changed to a single-stop at the southbound ramp since the study was completed
(2) Average Delay is the wait in seconds per vehicle at stop
(3) Represents approach with the most delay

Environmental Consequences

Table 2.7 shows the predicted operating conditions of the roadways within the project limits for the construction year (2009) and the design year (2025) with and without the project, including peak hour traffic volumes and level of service.

Table 2.7 Predicted Average Daily Traffic Volumes and Level of Service

Roadway	Location	Type of Roadway (Existing, 2009 and 2025)	Traffic Data	Predicted 2009 Conditions		Predicted 2025 Conditions	
				Without Project	With Project	Without Project	With Project
Avenue 16	Schnoor Avenue to State Route 99 Southbound ramp	Existing: 2-lane collector	Capacity[1]	9,000	9,000	24,000	24,000
		2009: 2-lane collector with or with out project	Daily Volume	8,175	7,850	18,775	17,555
		2025: 4-lane arterial with or without project	Level of Service	**E**	D	C	C
Avenue 16	State Route 99 Overcrossing	Existing: 2-lane collector	Capacity	9,000	9,000	12,000	12,000
		2009: 2-lane collector with or with out project	Daily Volume	8,294	7,545	12,110	9,595
		2025: 2-lane arterial with or without project	Level of Service	**E**	D	**F**	C
North Schnoor Avenue	South of Avenue 16	Existing: 4-lane arterial	Capacity	24,000	24,000	24,000	24,000
		2009: 4-lane arterial	Daily Volume	5,240	5,870	9,280	9,280
		2025: 4-lane arterial with or without project	Level of Service	A	A	A	A
Gateway Drive	State Route 99 Northbound Ramps to West Cleveland Avenue	Existing: 2-lane collector	Capacity	9,000	9,000	18,000	18,000
		2009: 2-lane collector with or without project	Daily Volume	9,395	6,390	5,995	6,865
		2025: 4-lane arterial with or without project	Level of Service	**E**	C	A	A
Ellis Street	West of Country Club Drive	Existing, 2009 and 2025 without project: 2-lane local street	Capacity	5,000	15,000	5,000	24,000
		2009 with project: 2-lane arterial	Daily Volume	230	3,500	1,575	4,275
		2025 with project: 4-lane arterial	Level of Service	A	A	A	A
Ellis Street	State Route 99 Overcrossing [2]	Existing, 2009 and 2025 without project: NONE	Capacity	--	--	--	30,000
		2009 with project: 2-lane arterial	Daily Volume	--	--	--	6,795
		2025 with project: 4-lane arterial	Level of Service	--	--	--	A

Source: Traffic Study for the Ellis Street Overcrossing, July 27, 2005
(1) Vehicles per day
(2) No data until after 2009

The City of Madera has plans for developing the Madera County Fairgrounds and the surrounding areas west of State Route 99 on Cleveland Avenue. The peak hour traffic volume is expected to increase as a result of the planned development, and by the year 2025, traffic at the intersections in the project area is expected to increase over the existing levels by approximately 60 percent.

In the year 2009, without the project, three roadways are expected to deteriorate to an unacceptable Level of Service "E" (shaded area in Table 2.7). With the completion of the Ellis Street Overcrossing, the planned roadway improvements would modify Ellis Street west of Country Club Drive from a 2-lane local road to a 2-lane arterial, which would increase the traffic capacity from 5,000 vehicles per day to 15,000 vehicles per day. All roadway segments within the project limits are predicted to operate at an acceptable Level of Service "D" or better. No data is available for the Ellis Street/State Route 99 Overcrossing until after the year 2009.

By the year 2025, it is predicted that other planned roadway improvements to increase traffic capacity (widen from 2-lanes to 4-lanes), which are not necessarily part of this project, would be completed on Avenue 16 west of State Route 99. Roadway improvements would affect 3 roadway segments within the project area:

- Avenue 16 at Schnoor Avenue to the State Route 99 southbound ramp – This roadway segment would be modified from a 2-lane collector to a 4-lane arterial with or without the project and its traffic capacity would increase from 9,000 vehicles per day to 24,000 vehicles per day.

- Avenue 16 at the State Route 99 Overcrossing – This roadway segment would be modified from a 2-lane collector to a 2-lane arterial with or without the project and its traffic capacity would increase from 9,000 vehicles per day to 12,000 vehicles per day.

- Gateway Drive at the State Route 99 northbound ramps to West Cleveland Avenue – This roadway segment would be modified from 2-lane collector to a 4-lane arterial with or without the project, and its traffic capacity would increase from 9,000 vehicles per day to 18,000 vehicles per day.

In the year 2025 without the project, the Avenue 16 and State Route 99 overcrossing is forecasted to exceed its traffic capacity and deteriorate to an unacceptable Level of Service "F." All other roadway segments are predicted to operate at a Level of Service "C" or better, and the predicted daily volume

represents less than 80 percent of their capacity. The predicted improvements to the levels of service without the project for Avenue 16 at Schnoor Avenue to the State Route 99 southbound ramp ("E" to "C"), and for Gateway Drive at State Route 99 northbound ramps to West Cleveland Avenue ("E" to "A") may be due to the predicted increase in traffic capacity.

The Ellis Street Overcrossing would provide an alternate route for traffic to circulate and with its completion in the year 2025, traffic volumes for the Avenue 16 and State Route 99 Overcrossing are expected to decrease from 12,110 vehicles per day to 9,595 vehicles per day. The level of service for this roadway segment is predicted to improve from Level of Service "F" (without the project) to an acceptable Level of Service "C."

By the year 2025 with the completion of the project, the roadway segment of Ellis Street west of Country Club Drive would be modified from a 2-lane arterial to a 4-lane arterial and its traffic capacity would be increased from 15,000 vehicles per day to 24,000 vehicles per day. In addition, the Ellis Street/State Route 99 Overcrossing would be modified from a 2-lane arterial to a 4-lane arterial, and its traffic capacity would increase to 30,000 vehicles per day. It is predicted that both these roadway segments would operate at a Level of Service "A" and the predicted daily volume represent less than 25 percent of their traffic capacity. All other roadway segments within the project area are predicted to operate at an acceptable Level of Service "C" or better.

The reduction in traffic volumes would reduce congestion and improve safety at the Cleveland Avenue interchange and the adjacent Cleveland Avenue/Gateway Drive/Country Club intersection and, in particular, at the "at-grade" crossing of the Union Pacific Railroad tracks at Country Club Drive. This change in traffic numbers and pattern is anticipated to be positive for the designated residential development north of the project and commercial use areas along State Route 99, reinforcing the City of Madera General Plan.

Table 2.8 shows the predicted conditions of the project's intersections in the years 2009 (construction year) and 2025 (design year) during evening (PM) peak hour traffic, including level of service and the average delay (time in seconds that each vehicle must wait at the stop).

Table 2.8 Predicted PM Peak Hour Intersection Level of Service

Location	Type of Control	Traffic Data	Predicted 2009 Conditions		Predicted 2025 Conditions	
			Without Project	With Project	Without Project	With Project
Ellis Street/Country Club Drive	All-Way Stop	Average Delay[1]	21.1	15.8	>100	53.2
		Level of Service	C	C	**F**	**F**
Avenue 16/N. Schnoor Avenue	Signal	Average Delay	12.8	12.8	34.3	34.3
		Level of Service	B	B	C	C
Avenue 16/State Route 99 southbound off-ramp[2]	All-Way Stop	Average Delay	19.5	14.5	68.1	76.8
		Level of Service	C	B	**F**	**F**
Avenue 16/State Route 99 northbound off-ramp	Two-way Stop	Average Delay	3.1	3.1	3.4	4.2
		Level of Service	A	A	A	A
Clark Street/Country Club Drive[3]	Two-way Stop	Average Delay	29.0	16.6	>100	38.8
		Level of Service	D	C	**F**	**E**
West Cleveland Avenue/ Schnoor Avenue	Signal	Average Delay	46.0	48.5	>100	>100
		Level of Service	D	D	**F**	**F**
Cleveland Avenue/State Route 99 southbound off-ramp	Signal	Average Delay	16.5	16.1	36.9	30.5
		Level of Service	B	B	**D**	C
Cleveland Avenue/State Route 99 northbound on-ramp	Signal	Average Delay	13.4	14.4	18.9	17.7
		Level of Service	B	B	B	B
Cleveland Avenue/Gateway Drive	Signal	Average Delay	58.7	47.8	>100	>100
		Level of Service	**E**	**D**	**F**	**F**
Cleveland Avenue/Sharon Road	Signal	Average Delay	28.0	27.5	>100	82.3
		Level of Service	C	C	**F**	**F**
Sherwood Way/Country Club Drive	Signal	Average Delay	24.5	22.9	85.1	49.3
		Level of Service	C	C	**F**	**D**

Source: Traffic Study for the Ellis Street Overcrossing, July 27, 2005
(1) Average Delay = wait in seconds per vehicle at stop
(2) This intersection has been changed to a single-stop at the southbound off-ramp since the study was completed
(3) Represents approach with the most delay

In the year 2009, without the project, the PM peak hour level of service for the intersection of Cleveland Avenue and Gateway Drive would deteriorate to a Level of Service "E," while all other intersections in the study would operate at an acceptable Level of Service "D" or better.

In the year 2009, with the completion of the project, all the intersections would be expected to operate at an acceptable level of service "D" or better.

By the year 2025 without the project, traffic forecasts predict that only four of the eleven intersections included in the analysis would experience an acceptable level of service. Shading in Table 2.8 indicates the remaining seven intersections that

would experience an unacceptable Level of Service "E" or "F" during peak hour traffic. These seven intersections are:

- Ellis Street/Country Club Drive
- Avenue 16/State Route 99 southbound off-ramp
- Clark Street/Country Club Drive
- West Cleveland Avenue/Schnoor Avenue
- Cleveland Avenue/Gateway Drive
- Cleveland Avenue/Sharon Road
- Sherwood Way/Country Club Drive

In the year 2025, with the completion of the Ellis Street Overcrossing project, five of the eleven intersections would operate at an acceptable Level of Service "D" or better including the Sherwood Way/Country Club Drive intersection. The Avenue 16/State Route 99 southbound off-ramp was changed from an all-way (4-way stop) to a single-stop after the completion of the traffic analysis. It would be expected that this intersection's delay time would improve because traffic would be diverted to the alternate route provided by the project.

The remaining six intersections used in the analysis are predicted to operate at Levels of Service "E" or "F." However, three of the six intersections would experience considerable improvements to their delay times and are expected to substantially decrease delay time from 18 seconds to almost one minute. These three intersections are:

- Ellis Street/Country Club Drive
- Clark Street/ Country Club Drive
- Cleveland Avenue/Sharon Road

In order to enhance future level of service, the traffic analysis recommends the following roadway improvements:

- Ellis Street/Country Club Road – signalize and add turning lanes
- West Cleveland Avenue/Schnoor Avenue – add second westbound left turn lane
- Avenue 16/North Schnoor Avenue – signalize and add turning lanes

No improvements were recommended for the Cleveland Avenue intersections with Gateway Drive and Sharon Road due to the constraints presented by right of way, intersection spacing, and location of the railroad tracks.

Nevertheless, the project would improve traffic patterns for residents and businesses in the northern portion of the city by providing an additional route with direct access to many commercial businesses on the west side of State Route 99. The project is consistent with the City of Madera and County of Madera General Plan Circulation Elements, and the proposed project is foreseen to have a positive benefit. The proposed project is expected to increase the capacity of the City of Madera's circulation network, elevate Ellis Street to an arterial street, and reduce travel times. The addition of an east-west route would redirect traffic from Country Club Drive, Cleveland Avenue, and North Gateway Boulevard, which would reduce congestion and travel times on those streets.

The extension of Ellis Street over State Route 99 and the railroad tracks would provide the City of Madera with an important transportation link on the north side of the city. Service levels at the intersections of Avenue 16/Schnoor Avenue, Avenue 16/State Route 99 overcrossing, and Gateway Drive/State Route 99 northbound ramps to W. Cleveland Avenue would remain acceptable, and even improve, with the proposed project.

It is not anticipated that the proposed project would affect existing or future pedestrian or bicycle facilities. The Madera County 2004 Regional Bicycle Transportation Plan designated Ellis Street and Avenue 16 within the limits of this project as a Class II Bicycle Route. Class II bicycle facilities, or bike lanes, lie within the paved area of a road or street and share the roadway with motor vehicles. Bike lanes are delineated by stripes and provide preferred, but not exclusive, use to bicyclists (motor vehicles may cross the bike lane to turn right). The overcrossing and connectors would provide four 12-foot travel lanes, a 14-foot raised median, 5-foot bicycle lanes, and 5-foot sidewalks. The widening of Ellis Street between Krohn Street and the Madera Irrigation District canal does not include independent bicycle lanes, but instead provides two 12-foot travel lanes with shoulders ranging from 5 to 14 feet.

Sidewalks are proposed on local facilities at intersections. Caltrans is committed to carrying out the 1990 Americans with Disabilities Act by building transportation facilities that provide equal access for all persons. The same degree of convenience,

accessibility, and safety available to the general public would be provided to persons with disabilities.

During construction, surface transportation would be disrupted by detours and potentially short-term street closures. Motorists could see delays during construction, and detours may increase traffic on the detour routes above normal levels of service.

Avoidance, Minimization, and/or Mitigation Measures

During construction, a Traffic Management Plan would be developed to accommodate local traffic patterns and reduce delay, congestion, and accidents. Standard Caltrans construction practices include media information announcements about roadway conditions, portable changeable message signs, lane and road closures, advance warning signs, alternate routes, reverse and alternate traffic control, and traffic contingency plan for unforeseen circumstances and emergencies. Before construction, Caltrans would meet with local public officials to review the plan as well as publicize plan details.

Coordination with the Union Pacific Railroad Company during construction would be necessary to erect and remove false work at an appropriate time to minimize disruption to mainline railroad traffic.

2.1.7 Visual/Aesthetics

Regulatory Setting

The National Environmental Policy Act of 1969, as amended, establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* and culturally pleasing surroundings [42 United States Code 4331(b)(2)]. To further emphasize this point, the Federal Highway Administration in its implementation of the National Environmental Policy Act [23 United States Code 109(h)] directs that final decisions regarding projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

Likewise, the California Environmental Quality Act establishes that it is the policy of the state to take all action necessary to provide the people of the state

"with…enjoyment of *aesthetic*, natural, scenic, and historic environmental qualities." [California Public Resources Code Section 21001(b)]

Affected Environment

A Visual Impact Analysis was conducted for the project in April 2006.

Regionally, the project area shows a transition from agriculture to suburban residential and commercial uses with no exceptional scenic resources and no exceptional scenic detriments. The area proposed for the overcrossing is very similar to many miles of landscape up and down the Central Valley of California.

Like much of the view from State Route 99 through the Central Valley, billboards, utility lines, poles and other transportation structures affect views from the project corridor. These elements negatively affect the views of and from the road, but most users of the road would find them commonplace and expected.

This portion of State Route 99 is a four-lane divided highway with at-grade frontage roads paralleling the highway and a railroad line to the east. The road dips into a depressed section beyond the project to the south and has above-grade exit ramps leading to an elevated overcrossing about 1.3 miles to the north. Adjacent to the overcrossing to the east is agricultural land and sparse residential development, and to the west is vacant land and commercial development.

The alignment of State Route 99 through the project area is straight except near Avenue 16 where the southerly view hints at the road's curve to the west and a slope downward under the Avenue 16/Gateway Drive overcrossing and into the center of the City of Madera. This curve, coupled with the mature tree and shrub plantings at the Avenue 16/Gateway Driveway off-ramp and overcrossing, makes this portion of the road more memorable. Northbound, the road follows a straight alignment, with the distant Avenue 17 overcrossing the only landmark. The northbound view is less memorable.

Visually, the landscape is a typical example of the Central Valley landscape: views from and adjacent to the road are generally of flat land with sparse suburban, rural residential, and commercial development. The springtime vegetation in the area is green and lush, turning golden and olive as the summer progresses.

Trees are found near the project and on the horizon in solitary locations and small groves. Large evergreen shrubs have been planted in the center of the highway, and

in the project area shrubs have been planted on the western edge of the right-of-way. A large grove of mature evergreen trees and shrubs exist in the off-ramp area south of the project on the west side of the freeway.

The eastern edge of the right-of-way adjoins a railroad track, a frontage road, adjacent fallow land, and residential property. Newer commercial developments are found outside the right-of-way on the west, but the planting at the edge of the right-of-way generally hides them. North of the project location, the adjacent developed land is more visible because there are fewer shrubs to screen the area. There are no rock outcroppings or scenic vistas.

Environmental Consequences

The proposed overcrossing connecting Ellis Street with Avenue 16 would create a visual impact for existing and potential residential viewers within the project vicinity. The overcrossing would create an earthen berm on both the east and west sides of State Route 99 and a concrete structure with the associated installation of appropriate lighting, signs and landscaping over State Route 99 and the railroad tracks. The project would remove two eucalyptus trees from the west side of State Route 99 and about 25 oleanders from the freeway median. Vegetation directly interfering with the installation of the new overcrossing would be removed.

The degree of impact depends on the final design of the overcrossing. The proposed project would be seen by two primary groups—(1) travelers on State Route 99 heading north or south through the project area and (2) travelers, mostly local residents, crossing the project site and the overcrossing:

- For travelers on State Route 99, the proposed project is similar in nature to the highway experience north and south of the project site for the length of the Central Valley. It is not anticipated that this project would be any more or less memorable than any other crossing structure. Additionally, there are no special scenic resources that fall within the view of this project that would be degraded by the installation of the project.

- For travelers crossing the project site, mainly residents of the area who cross this portion of the county on a routine basis, the primary visual impact of this overcrossing would be the addition of a human-made element to the landscape that would initially seem out of place. The addition of modern streetscape elements and landscaping would enhance the area as the project is completed.

With the installation of streetscape elements, including landscaping, on the new at-grade roadway approaches, the change in visual quality after installation of the overcrossing and approach roads would be slight and generally positive.

The construction of the proposed project would temporarily affect the visual/aesthetic quality of the area. Impacts would include views of earth-moving and road-working equipment, both in use and stored on the site, and large piles of dirt. These visual impacts would be cleared once the project was completed.

With mitigation planting, the project's contribution to cumulative impacts to visual resources would be minimal because the area proposed for the overcrossing is very similar to many miles of landscape up and down State Route 99 in the Central Valley.

Avoidance, Minimization, and/or Mitigation Measures

The City of Madera proposes to provide 58 plants in 5-gallon containers for replacement planting at various locations along State Route 99 within the City of Madera. The plants would become the property of the State and would be planted within the State right-of-way by Caltrans maintenance crews or others. The planting of the plants would be the responsibility of the State.

2.2 Physical Environment

2.2.1 Water Quality and Storm Water Runoff

Regulatory Setting

Section 401 of the Clean Water Act requires water quality certification from the State Water Resources Control Board or from a Regional Water Quality Control Board when the project requires a Clean Water Act Section 404 permit. Section 404 of the Clean Water Act requires a permit from the U.S. Army Corps of Engineers to discharge dredged or fill material into waters of the United States.

Along with Section 401 of the Clean Water Act, Section 402 of the Clean Water Act establishes the National Pollutant Discharge Elimination System permit for the discharge of any pollutant into waters of the United States. The federal Environmental Protection Agency has delegated administration of the National Pollutant Discharge Elimination System program to the State Water Resources Control Board and nine Regional Water Quality Control Boards. The State Water

Resources Control Board and Regional Water Quality Control Boards also regulate other waste discharges to land within California through the issuance of waste discharge requirements under authority of the Porter-Cologne Water Quality Act.

The State Water Resources Control Board has developed and issued a statewide National Pollutant Discharge Elimination System permit to regulate storm water discharges from all Caltrans activities on its highways and facilities. Caltrans construction projects are regulated under the statewide permit, and projects performed by other entities on Caltrans right-of-way (encroachments) are regulated by the State Water Resources Control Board's Statewide General Construction Permit. All construction projects require a Storm Water Pollution Prevention Plan to be prepared and implemented during construction.

Affected Environment

A Storm Water Analysis for the project was conducted in April 2005 and supplemented by an additional memorandum in October 2007. The project is located in the San Joaquin Valley Floor Hydraulic Unit 545.30. There are no water bodies or wetlands within the project limits. Two irrigation canals pass through the site; however, these are human-made structures and do not contribute to any of the natural waterways within the project area vicinity. The closest water body having water quality objectives or goals is the Fresno River, about two miles south of the project area.

Environmental Consequences

The project would not include ground-disturbing activities that have potential to affect groundwater quality in the vicinity of the project area. Short-term surface water quality impacts are expected from the implementation of the project, but no long-term surface water impacts are expected. The major potential surface water quality impacts are as follows:

- An increase in sediments, turbidity (murkiness), and total dissolved solids
- Toxicity due to chemical substances coming from construction activities
- Inadequate storm water drainage

Avoidance, Minimization, and/or Mitigation Measures

Any potential impacts (erosion, accidental spills of hazardous material, and disruption of natural drainage patterns) must be addressed, avoided or minimized to the maximum extent practicable during the design and construction of the project

by incorporating into the project the appropriate permanent and temporary Best Management Practices.

The contractor, as required in Caltrans Standard Specifications Section 7-1.01G, must address all potential water quality impacts that may occur during construction. Subject to Caltrans' and the City of Madera's review and approval, the contractor would prepare both the Storm Water Pollution Prevention Plan and the Water Pollution Control Program. The plan and program identify construction activities that may cause pollutants in storm water and measures to control these pollutants.

Avoidance and minimization measures for storm water would also be accomplished by implementation of approved Best Management Practices, which are generally refined as the project progresses through the planning stage and into final design.

If the project disturbs less than one acre of soil, a Water Pollution Control Program needs to be prepared by the contractor in accordance with Caltrans standard Specifications Section 7-1.01G–Water Pollution.

If the project disturbs one acre or more of soil, the following is required:

- A Notification of Construction is to be submitted to the appropriate Regional Water Quality Control Board at least 30 days before the start of the construction.
- A Storm Water Pollution Prevention Plan is to be prepared and implemented during construction to the satisfactory of the Resident Engineer.
- A Notice of Construction Completion shall be submitted to the Regional Board upon completion of construction and site stabilization. A project will be considered complete when the Construction General Permit criteria for final stabilization are met.

Any abandoned water well located on land acquired for this project would be properly sealed or destroyed to prevent potential contaminants from entering the groundwater. The City of Madera would be responsible for abandoned water wells in the acquired right-of-way.

2.2.2 Geology/Soils/Seismic/Topography

Regulatory Setting

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects "outstanding examples of major geological features." Topographic and geologic features are also protected under the California Environmental Quality Act.

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. Caltrans' Office of Earthquake Engineering is responsible for assessing the seismic hazard for Caltrans projects. The current policy is to use the anticipated Maximum Credible Earthquake from young faults in and near California. The Maximum Credible Earthquake is defined as the largest earthquake that can be expected to occur on a fault over a particular period of time.

Affected Environment

A geologic and geographic assessment was included in the Paleontological Resource Impact Assessment conducted for the project in June 2006. The project site lies on a Chowchilla alluvial fan between the westerly draining Chowchilla and Fresno rivers. The alluvial fan sediment consists of stream channel sands, silty sands, silts and clays. The site is underlain by older alluvium of the Pleistocene Age. Topographic relief is relatively level with the land sloping in southwesterly direction at an average gradient of less than one percent. Ground elevation in the project area ranges between 260 feet and 270 feet above mean sea level.

The project site is located within Seismic Zone Classification IV, a region of low seismic hazards. The main seismic hazard is ground shaking produced by earthquakes generated from various active and potentially active faults found in the Coast Range and the Sierra Nevada mountains. No active or potentially active faults were identified in the immediate project vicinity. Therefore, the potential for direct surface fault rupture on or near the project site is considered low.

Environmental Consequences

The overcrossing would create graded slopes along embankments. Construction of embankments would require suitable soils (local and/or imported) to ensure applicable state and local compaction requirements were met and that shrink/swell problems were avoided.

Construction of the overcrossing, embankments, roadways, infrastructure and utilities would involve grading, excavation, and trenching activities. Slope and soil disturbances could result in wind and water soil erosion on the project site and could also produce off-site sedimentation.

With the use of an erosion control plan, the project is not expected to result in wind and water erosion, produce off-site sedimentation, or contribute to cumulative impacts.

Avoidance, Minimization, and/or Mitigation Measures

A qualified geologist or civil engineer shall prepare an erosion control plan for the project. The erosion control plan shall be in compliance with the California Regional Water Quality Control Board, Central Valley Region general construction permit specifications, and the San Joaquin Valley Air Pollution Control District rules contained in Regulation VIII.

Shrink/swell problems would be avoided by using the standard Caltrans design and construction procedures as contained in the Highway Design Manual and Standard Specifications.

2.2.3 Paleontology

Regulatory Setting

Paleontology is the study of life in past geologic time based on fossil plants and animals. A number of federal statutes specifically address paleontological resources, their treatment, and funding for mitigation as a part of federally authorized or funded projects (such as the Antiquities Act of 1906 [16 U.S. Code 431-433], Federal-Aid Highway Act of 1935 [20 U.S. Code 78]). Under California law, paleontological resources are protected by the California Environmental Quality Act, the California Administrative Code, Title 14, Section 4306 et seq., and Public Resources Code Section 5097.5.

Affected Environment

A study was completed to determine the project's effect on paleontological resources (Paleontological Resource Impact Assessment, June 2006).

Paleontological resources (fossils) are the remains or traces of prehistoric plants and animals. Fossils are important scientific and educational resources because of their use in (1) documenting the presence and evolutionary history of particular groups of

now extinct organisms, (2) reconstructing the environments in which these organisms lived, and (3) determining the relative ages of the strata in which they occur and of the geologic events that resulted in the deposition of the sediments that formed these strata.

The ground in the vicinity of the project is relatively flat and averages about 265 feet in elevation. The proposed construction would occur on the eastern edge of the San Joaquin Valley, near the westernmost foothills of the Sierra Nevada, very close to the geographic center of the state. The project area is bounded on the west by the floodplain of the San Joaquin River and on the east by a gently inclined alluvial fan, which heads into the Sierra Nevada.

Within the project area, coalesced alluvial fans have been created by rock debris deposited by the Fresno River and adjacent smaller streams. Each of these stratigraphic units has yielded fossil remains at previously recorded fossil sites within the Central Valley. Based on geologic mapping, the project area has exposed at the surface Pleistocene ("Ice Age") continental deposits of the Turlock Lake Formation, Riverbank Formation, and Modesto Formation, from oldest to youngest.

There are no previously recorded fossil sites within the project right-of-way; however, sediments of the three formations have yielded fossilized remains of extinct species of continental vertebrates at numerous previously recorded fossil sites in the Central Valley, including in the vicinity of the Fairmead Landfill, about 9 miles north of Madera. In addition, during the field surveys for the proposed project, fossil remains were found at several previously unrecorded fossil sites in the surrounding project vicinity.

Environmental Consequences

Although no fossils are known to directly underlie the proposed project area, the presence of fossil sites in alluvial deposits in the surrounding vicinity of the proposed project suggests that there is a high potential for additional similar fossil remains to be uncovered by excavations in the Turlock Lake, Riverbank, and Modesto formations during construction of the project.

Under 1995 Society of Vertebrate Paleontology criteria, all three formations have a high sensitivity for producing additional paleontological resources. Identifiable fossil remains recovered from any of these formations during project construction could be scientifically important.

Potential impacts on paleontological resources resulting from the project include terrain modification from ground disturbance (excavations and drainage diversion measures) and earth movement associated with construction of the project. Direct impacts could result from vegetation clearing, grading, widening of road cuts, and any other earth-moving activities that disturb or bury previously undisturbed fossiliferous sediments, making those sediments and their paleontological resources unavailable for future scientific study.

In addition, the construction of supporting facilities, such as temporary construction offices, laydown areas, and parking areas, has potential to cause adverse impacts on important paleontological resources, if they would also involve new ground disturbance. With the use of a monitoring and mitigation plan, the project would not be expected to have an adverse impact or contribute to cumulative impacts.

Avoidance, Minimization, and/or Mitigation Measures

Before construction, a qualified paleontologist would be retained to both design a monitoring and mitigation program and implement the program during all project-related ground disturbances.

Paleontological mitigation for the project would include the following:

1. A nonstandard special provision for paleontology mitigation would be included in the construction contract special provisions section to advise the construction contractor of the requirement to cooperate with the paleontological salvage.
2. A qualified principal paleontologist (M.S. or Ph.D. in paleontology or geology familiar with paleontological procedures and techniques) would be retained to prepare a detailed Paleontological Mitigation Plan before the start of construction. All geologic work would be performed under the supervision of a California Professional Geologist.
3. The qualified principal paleontologist would be present at pre-grading meetings to consult with grading and excavation contractors.
4. Near the beginning of excavations, the principal paleontologist would conduct an employee environmental awareness training session for all persons involved in earth moving for the project.

5. A paleontological monitor, under the direction of the qualified principal paleontologist, would be onsite to inspect cuts for fossils at all times during original grading involving sensitive geologic formations.
6. When fossils are discovered, the paleontologist (or paleontological monitor) would recover them. Construction work in these areas would be stopped or diverted to allow recovery of fossil remains in a timely manner.
7. Bulk sediment samples would be recovered from fossiliferous horizons and processed for microvertebrate remains as determined necessary by the principal paleontologist.
8. Fossil remains collected during the monitoring and salvage portion of the mitigation program would be cleaned, repaired, sorted, and catalogued.
9. Prepared fossils, along with copies of all pertinent field notes, photos, and maps, would then be deposited in a scientific institution with paleontological collections.

A final report that outlines the results of the mitigation program would be completed and signed by the Principal Paleontologist and Professional Geologist.

2.2.4 Air Quality

Regulatory Setting

The Clean Air Act, as amended in 1990, is the federal law that governs air quality. Its counterpart in California is the California Clean Air Act of 1988. These laws set standards for the concentration of pollutants that can be in the air. At the federal level, these standards are called National Ambient Air Quality Standards. Standards have been established for six criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM), lead (Pb), and sulfur dioxide (SO_2).

Under the 1990 Clean Air Act Amendments, the U.S. Department of Transportation cannot fund, authorize, or approve federal actions to support programs or projects that are not first found to conform to the State Implementation Plan for achieving the goals of the Clean Air Act requirements. Conformity with the Clean Air Act takes place on two levels—first, at the regional level, and second, at the project level. The proposed project must conform at both levels to be approved.

Regional level conformity in California is concerned with how well the region is meeting the standards set for carbon monoxide, nitrogen dioxide, ozone, and particulate matter. California is in attainment for the other criteria pollutants. At the regional level, Regional Transportation Plans are developed that include all of the transportation projects planned for a region over a period of years, usually at least 20. Based on the projects included in the Regional Transportation Plan, an air quality model is run to determine whether or not the implementation of those projects would conform to emission budgets or other tests showing that attainment requirements of the Clean Air Act are met.

If the conformity analysis is successful, the regional planning organization, such as the Madera County Transportation Commission for Madera County and the appropriate federal agencies, such as the Federal Highway Administration, make the determination that the Regional Transportation Plan is in conformity with the State Implementation Plan for achieving the goals of the Clean Air Act. Otherwise, the projects in the Regional Transportation Plan must be modified until conformity is attained. If the design and scope of the proposed transportation project are the same as described in the Regional Transportation Plan, then the proposed project is deemed to meet regional conformity requirements.

Conformity at the project-level also requires “hot spot” analysis if an area is in “non-attainment” or “maintenance” for carbon monoxide and/or particulate matter. A region is a “non-attainment” area if one or more monitoring stations in the region fail to attain the relevant standard. Areas that were previously designated as non-attainment areas but have recently met the standard are called “maintenance” areas. In general, projects should not create a new violation or worsen an existing one.

Affected Environment

The project lies in the San Joaquin Valley air basin, which is defined by the Sierra Nevada in the east, the Coast Ranges in the west, and the Tehachapi Mountains in the south. The surrounding topographic features restrict air movement through and out of the basin, and as a result, slow down the dispersion of pollutants from the basin.

Inversion layers are formed in the San Joaquin Valley air basin throughout the year. An inversion layer is created when a mass of warm dry air sits over cooler air near the ground, preventing vertical dispersion of pollutants from the air mass below.

Daytime temperature inversions in the San Joaquin Valley range from 2,000 to 2,500 feet above the valley floor in the summer to 500 to 1,000 feet in the winter.

The climate of the project area is typical of inland valleys in California, with hot, dry summers and cool, mild winters. Daytime temperatures range from lows near 60 degrees to highs of over 100 degrees in the summer, and lows near 35 degrees to highs in the 50s during the winter. Radiation fog is cool in the winter and may persist for days. Winds come mainly from the north in all seasons, but more so in the summer and spring months. Winds in the fall and winter are generally lighter and more variable in direction.

The pollution potential in the San Joaquin Valley is very high. The surrounding mountains, combined with the temperature inversions, often keep pollutants from dispersing. Plus, abundant sunshine and warm temperatures in summer provide ideal conditions for the formation of photochemical oxidants, so the San Joaquin Valley often has photochemical pollution.

Environmental Consequences

Regional Air Quality Conformity

The proposed project is fully funded and is in the 2007 Regional Transportation Plan, which was found to conform by the Madera County Transportation Commission on May 23, 2007. The Federal Highway Administration and the Federal Transit Authority adopted the air quality conformity finding on June 29, 2007.

The project is also included in Madera County Transportation Commission financially constrained 2007 Regional Transportation Improvement Program including Amendment 2, page 54. The 2007 Madera County Transportation Commission Regional Transportation Improvement Program was found to conform by the Federal Highway Administration and the Federal Transit Authority on June 29, 2007. The design concept and scope of the proposed project is consistent with the project description in the 2007 Regional Transportation Plan, the 2007 Regional Transportation Improvement Program including Amendment 2, page 54, and the assumptions in the Madera County Transportation Commission regional emissions analysis.

Project-Level Air Quality Conformity

Under both the federal and state Clean Air Acts, the San Joaquin Valley Air Pollution Control District is a non-attainment area (standards have not been

attained) for ozone (1-hour and 8-hour) and particulate matter (PM_{10} and $PM_{2.5}$). The air basin is either in attainment or unclassified for other ambient standards. The state and federal standards and attainment status for priority pollutants for the San Joaquin Valley Air Pollution Control District are summarized in Table 2.9.

Table 2.9 Air Quality Standards and Attainment

Criteria Pollutant	Federal Standard (National Ambient Air Quality Standards)	Federal Attainment Status	State Standard	State Attainment Status
Carbon Monoxide (CO)	9.0 ppm (1-hour avg.) 35.0 ppm (8-hour avg.)	Attainment/ Unclassified	9.0 ppm (1 hour avg.) 20.0 ppm (8 hour avg.)	Attainment/ Unclassified
Nitrogen Dioxide (NO_2)	0.05 ppm (1-hour annual avg.)	Attainment/ Unclassified	0.25 ppm (1-hour annual avg.)	Attainment
Ozone (O_3)	0.12 ppm (1-hour avg.)	No Federal Standard	0.09 ppm (1-hour avg.)	Non-Attainment/ Severe
	0.08 ppm (8-hour avg.)	Non-Attainment/ Serious	Non-Attainment	Non-Attainment
Particulate Matter (PM_{10})	50 $\mu g/m^3$ (annual arithmetic mean)	Non-Attainment/ Serious	20 $\mu g/m^3$ (annual arithmetic mean)	Non-Attainment
Particulate Matter ($PM_{2.5}$)	15 $\mu g/m^3$ (annual arithmetic mean)	Non-Attainment	12 $\mu g/m^3$ (annual arithmetic mean)	Non-Attainment

**2006 State of California Air Resources Board*
ppm = parts per million
$\mu g/m^3$ = micrograms per cubic meter

Carbon Monoxide

The project lies in an attainment/unclassified area for the federal carbon monoxide standard. The California Air Resources Board operates a monitoring site in Fresno, southeast of the project site. The Madera and Merced monitoring sites measure gaseous pollutants only, while the Fresno site measures both gaseous pollutants and PM_{10}. Ambient carbon monoxide levels monitored at the Fresno site indicate that the federal and state standards for carbon monoxide have not been exceeded since 2000.

Particulate Matter

In November 2006, the City of Madera conducted a particulate matter ($PM_{2.5}$ and PM_{10}) hot spot conformity assessment, which concluded that the proposed project is

not a Project of Air Quality Concern. The Environmental Protection Agency and the Interagency Consultation Partners agreed with that conclusion on January 26, 2007.

Mobile Source Air Toxics

The Federal Highway Administration has developed a tiered approach for analyzing Mobile Source Air Toxics (MSATs) in National Environmental Policy Act documents. Depending on the specific project circumstances, the Federal Highway Administration has identified three levels of analysis:

- No analysis for projects with no potential for meaningful Mobile Source Air Toxics effects;
- Qualitative analysis for projects with low potential Mobile Source Air Toxics effects; or
- Quantitative analysis to differentiate alternatives for projects with higher potential Mobile Source Air Toxics effects.

Category 1: Exempt Projects or Projects with No Meaningful Potential Mobile Source Air Toxics Effects

The types of projects included in Category 1 are as follows:

- Projects qualifying as a categorical exclusion under 23 CFR 771.117(c);
- Projects exempt under the Clean Air Act conformity rule under 40 CFR 93.126; or
- Other projects with no meaningful impacts on traffic volumes or vehicle mix.

Category 2: Projects with Low Potential Mobile Source Air Toxics Effects

The types of projects included in Category 2 are those that serve to improve operations of highway, transit or freight without adding substantial new capacity or without creating a facility that is likely to meaningfully increase emissions. This category covers a broad range of projects. Most highway projects fall into this category.

Any projects that do not meet the threshold criteria for higher potential effects set forth in Category 3 described below and that do not meet the criteria in Category 1 above are included in this category. For these projects, a qualitative assessment of emissions projections must be conducted. This qualitative assessment must

compare, in narrative form, the expected effect of the project on traffic volumes, vehicle mix, or routing of traffic, and the associated changes in Mobile Source Air Toxics for the project alternatives, based on Vehicle Miles Traveled (VMT), vehicle mix, and speed.

Category 3: Projects with Higher Potential Mobile Source Air Toxics Effects

This category includes projects that have the potential for meaningful differences among project alternatives. To fall into this category, projects must:

- Create or significantly alter a major inter-modal freight facility that has the potential to concentrate high levels of diesel particulate matter in a single location; or
- Create new or add significant capacity to urban highways such as interstates, urban arterials, or urban collector-distributor routes with traffic volumes where the Average Annual Daily Traffic is projected to be in the range of 140,000 to 150,000, or greater, by the design year; and also
- Be proposed to be located in proximity to populated areas or in rural areas, in proximity to concentrations of vulnerable populations (i.e., schools, nursing homes, hospitals).

Projects falling within Category 3 must be more rigorously assessed for impacts.

The proposed project would not fall into Category 1 because it is not a categorical exclusion or exempted by the Clean Air Act conformity rule. Also, the project would not fall into Category 3 because it would not change an inter-modal freight facility nor would it create new or add significantly to the capacity of a roadway where the average annual daily traffic count would exceed 140,000 in the design year. Consequently, the proposed project falls into Category 2 and requires the following qualitative analysis.

Each of the project alternatives would have an average annual daily traffic count in the project design year that is less than the 140,000 significance level established by Federal Highway Administration's Mobile Source Air Toxics guidance. This results in Mobile Source Air Toxics emissions from the vehicle fleet that are lower than what the Federal Highway Administration considers potentially significant. Also, over time, emissions of Mobile Source Air Toxics are expected to decrease as improvements in mobile source control technology result in reductions in reactive

organic gases (ROG) and suspended particulate matter ($PM_{10)}$ emissions. Mobile Source Air Toxics are constituents of reactive organic gases and suspended particulate matter (PM_{10}); therefore, emissions of Mobile Source Air Toxics would also decrease as average vehicle emissions from the vehicle fleet decrease over time. Based on these considerations, each project alterative would generate emissions of Mobile Source Air Toxics pollutants that would have a less than significant air quality effect.

Construction Impacts

Construction activities would temporarily affect local air quality, causing a temporary increase in particulate dust and other pollutants, such as construction equipment exhaust emissions or odor. Uncontrolled dust emissions during construction have the potential to exceed the ambient air quality standards locally. During construction, the various diesel-powered vehicles and equipment in use on the site would create odors. These odors are temporary and not likely to be noticeable much beyond the project boundaries.

The San Joaquin Valley Air Pollution Control District regulates construction emissions through its Regulation VIII**,** which requires preparation of a dust control plan to be submitted to the Control District 30 days before the start of construction. Violations of the requirements of Regulation VIII are subject to enforcement action. The generation of visible dust clouds and/or generation of complaints indicate violations. With implementation of Regulation VIII controls and the additional measures listed below, construction impacts would be minimized.

Health risks from toxic air contaminants are a function of both concentration and duration of exposure. Construction diesel emissions are temporary, affecting an area for a period of days or perhaps weeks. Additionally, construction-related sources are mobile and transient in nature, and the bulk of the emission would occur at a substantial distance from nearby receptors. Because of its short duration, potential health risks from construction emissions of diesel particulate would be minor.

The project is designed to relieve congestion, reduce idling time, and improve local traffic circulation; therefore, any contribution to cumulative air quality is expected to be minimal.

The California Environmental Quality Act requires that environmental documents address human exposure to both naturally occurring and structural airborne asbestos. The U.S. Environmental Protection Agency, the California Air Resources

Board, and most air pollution control districts regulate asbestos as an airborne toxic material. According to Department of Conservation, California Geological Survey mapping, naturally occurring asbestos is not expected to be present. The mapping shows no rock types present known to contain asbestos fibers (December 2007).

Avoidance, Minimization, and/or Mitigation Measures

Caltrans Standard Specifications pertaining to dust control and dust palliative requirements are a required part of all construction contracts and should effectively reduce and control emission impacts during construction. The provisions of Caltrans Standard Specifications, Section 7-1/OF "Air Pollution Control" and Section 10 "Dust Control," require the contractor to comply with the San Joaquin Valley Air Pollution Control District's rules, ordinances, and regulations.

The San Joaquin Valley Air Pollution Control District regulates construction emissions through its Regulation VIII**,** which requires preparation of a dust control plan to be submitted to the Control District 30 days before the start of construction. Violations of the requirements of Regulation VIII are subject to enforcement action. The generation of visible dust clouds and/or generation of complaints indicate violations. With implementation of Regulation VIII controls and the additional measures listed below, construction impacts would be reduced to a less-than-significant level.

The City of Madera would require the primary construction contractor to prepare and submit to the San Joaquin Valley Air Pollution Control District a dust control plan that incorporates all provisions of Regulation VIII and the following additional measures:

- Limit traffic speeds on unpaved roads to 15 miles per hour.
- Install wheel washers or other forms of wheel cleaners at truck exits, and wash loose dirt from trucks and equipment leaving the site.
- Suspend excavation and grading activities when winds exceed 20 miles per hour.
- Limit size of area subject to excavation, grading or other construction activity at any one time to avoid excessive dust.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.

- Make maximum use of diesel equipment equipped with catalytic converters and particulate traps.
- Curtail construction during "Spare the Air Days" declared by the San Joaquin Valley Air Pollution Control District.
- Turn off equipment not in use for more than 10 minutes.
- Limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use.
- Whenever feasible and cost effective, use electrically driven equipment (provided equipment is not run via a portable generator set) or alternatively fueled equipment/vehicles.

2.2.5 Noise and Vibration

Regulatory Setting

The National Environmental Policy Act of 1969 and the California Environmental Quality Act provide the broad basis for analyzing and abating the effects of highway traffic noise. The intent of these laws is to promote the general welfare and to foster a healthy environment. The requirements for noise analysis and consideration of noise abatement and/or mitigation, however, differ between the National Environmental Policy Act and the California Environmental Quality Act.

California Environmental Quality Act

The California Environmental Quality Act requires a strictly no-build versus build analysis to assess whether a proposed project will have a noise impact. If a proposed project is determined to have a significant noise impact under the California Environmental Quality Act, then the act dictates that mitigation measures must be incorporated into the project unless such measures are not feasible.

National Environmental Policy Act and 23 Code of Federal Regulations 772

For highway transportation projects with Federal Highway Administration (and Caltrans, as assigned) involvement, the Federal-Aid Highway Act of 1970 and the associated implementing regulations (23 Code of Federal Regulations 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project.

The regulations contain noise abatement criteria that are used to determine when a noise impact would occur. The noise abatement criteria differ depending on the type

of land use under analysis. For example, the criterion for residences (67 decibels) is lower than the criterion for commercial areas (72 decibels).

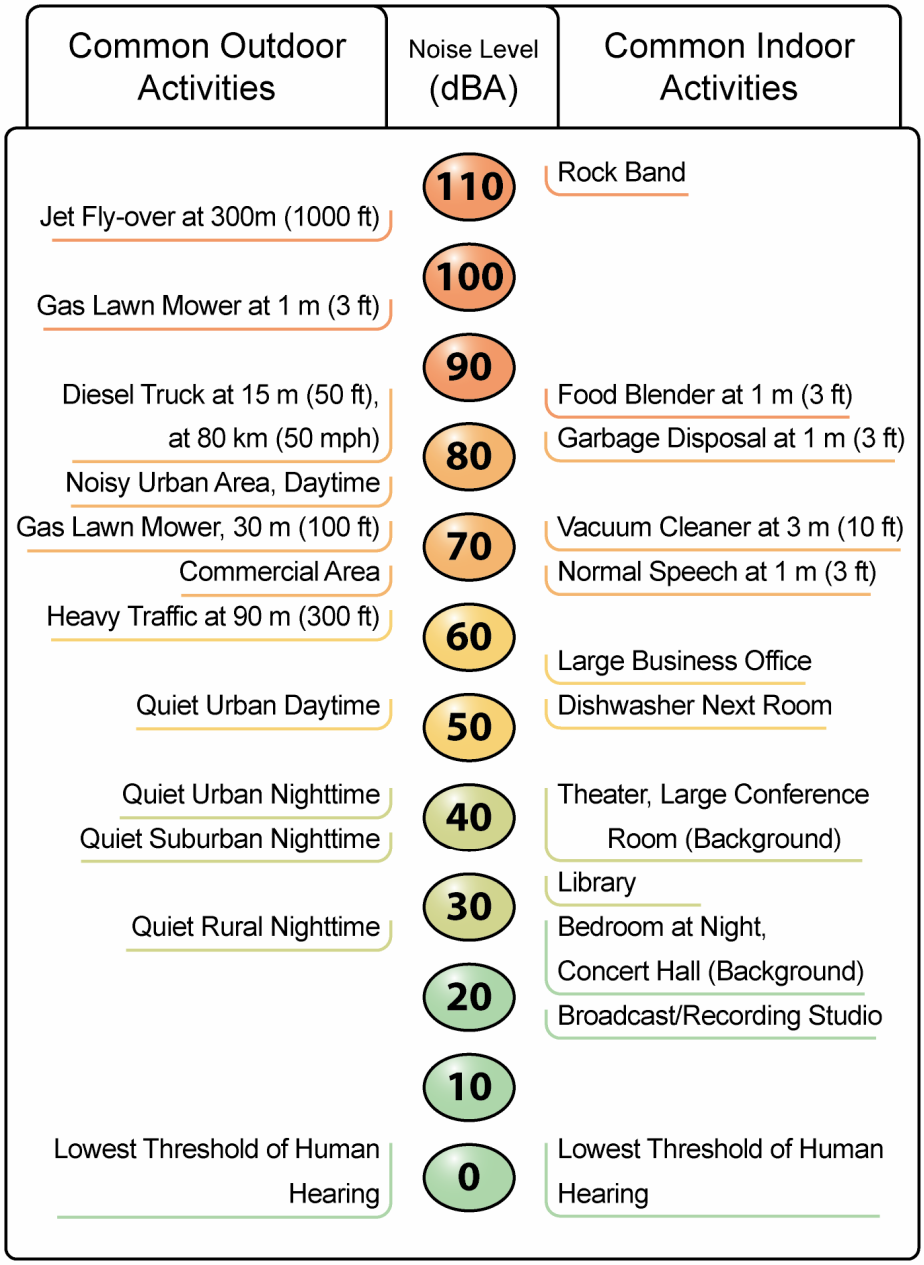
Table 2.10 lists the noise abatement criteria used in the National Environmental Policy Act and 23 Code of Federal Regulations 772 analysis, and Table 2.11 shows the noise levels of typical activities.

Table 2.10 Activity Categories and Noise Abatement Criteria

Activity Category	Noise Abatement Criteria, A-weighted Noise Level, Leq(h)	Description of Activities
A	57 Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose
B	67 Exterior	Picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals
C	72 Exterior	Developed lands, properties, or activities not included in Categories A or B above
D	--	Undeveloped lands
E	52 Interior	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums

Source: *Caltrans Traffic Noise Analysis Manual, 1998*
A-weighted decibels are adjusted to approximate the way humans perceive sound. Leq(h) is the steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual time-varying levels over one hour.

Table 2.11 Typical Noise Levels



In accordance with Caltrans' *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, August 2006,* a noise impact occurs when the future noise level with the project results in a substantial increase in noise level (defined as a 12-decibel or more increase) or when the future noise level with the project approaches or exceeds the noise abatement criteria. Approaching the noise abatement criteria is defined as coming within 1 decibel of the criteria.

If it is determined that the project would have noise impacts, then potential abatement measures must be considered. Noise abatement measures that are determined to be reasonable and feasible at the time of final design are incorporated into the project plans and specifications. This document discusses noise abatement measures that would likely be incorporated into the project.

Caltrans' Traffic Noise Analysis Protocol sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasibility of noise abatement is basically an engineering concern. A minimum 5-decibel reduction in the future noise level must be achieved for an abatement measure to be considered feasible. Other considerations include topography, access requirements, other noise sources, and safety considerations. The reasonableness determination is basically a cost-benefit analysis. Factors used in determining whether a proposed noise abatement measure is reasonable include residents' acceptance, the absolute noise level, build versus existing noise, environmental impacts of abatement, public and local agencies' input, newly constructed development versus development pre-dating 1978, and the cost per benefited residence.

Affected Environment

An environmental noise analysis was conducted for the project in July 2005. The noise analysis used five receptors within or near the project limits: four single-family residences and a mobile home park. The Country Living Mobile Home and RV Park sits at the end of the project, north of Avenue 16, and is not within the project limits. All of the receptors were located along Ellis Street or Avenue 16.

Table 2.12 lists receptors that were chosen for analysis of noise impacts and are representative of Category B uses in the vicinity of the project. The existing noise levels at these receptors measured between 47 and 56 decibels. For Category B land uses (residential receptors), a traffic noise impact occurs if traffic noise levels approach or exceed 67 decibels or increase by 12 dBA.

Table 2.12 Noise Receptors and Noise Levels

Receptor Number	Location	Peak Hour Noise Levels (dBA)		
		Existing	Predicted Without Project (2025)	Predicted With Project (2025)
R1	South of Ellis Street, midway between the streets of Fairview and Cardwell	49	50	55
R2	North of Ellis Street, nearer to Cardwell Street	47	48	53
R3	North of Avenue 16, fourth parcel west of Schnoor Avenue	53	56	56
R4	North of Avenue 16, sixth parcel west of Schnoor Avenue	51	54	54
R5	Country Living Mobile Home and RV Park. North of Avenue 16 just outside the project limits near the end of the project	56	59	59

Background noise levels were measured by taking 15-minute traffic noise level measurements at three locations. Measurements were conducted 50 to 60 feet from the two measurement sites on Ellis Street and one on Avenue 16. Very little traffic was on the roads, so it was not possible to compare measured traffic noise levels to modeled noise levels. Most of the background noise appeared to originate from distant traffic on Country Club Drive east of Ellis Street or from State Route 99.

The high noise levels measured at site M3 (see Table 2.13) were probably caused from the activities of a garbage truck nearby. Table 2.13 lists the results of the background, or short-term, noise level measurements.

Table 2.13 Background (Short-Term) Noise Measurements

Background (Short-Term) Noise Measurement Summary				
Measurement Site Number	**Location**	**Date**	**Time**	**Noise Levels L_{eq} (dBA)**
M1	South of Ellis Street near Fairview Street	7/6/05	2:30 p.m.	46-68 (51)
M2	Corner of Ellis Street and Krohn Avenue	7/6/05	3:05 p.m.	50-58 (55)
M3	North of Avenue 16, West of Schnoor Avenue	7/6/05	3:30 p.m.	41-76 (59)

Figure 2-3 shows the location of noise receptors R1 through R5 and the background measurement sites M1 through M3.

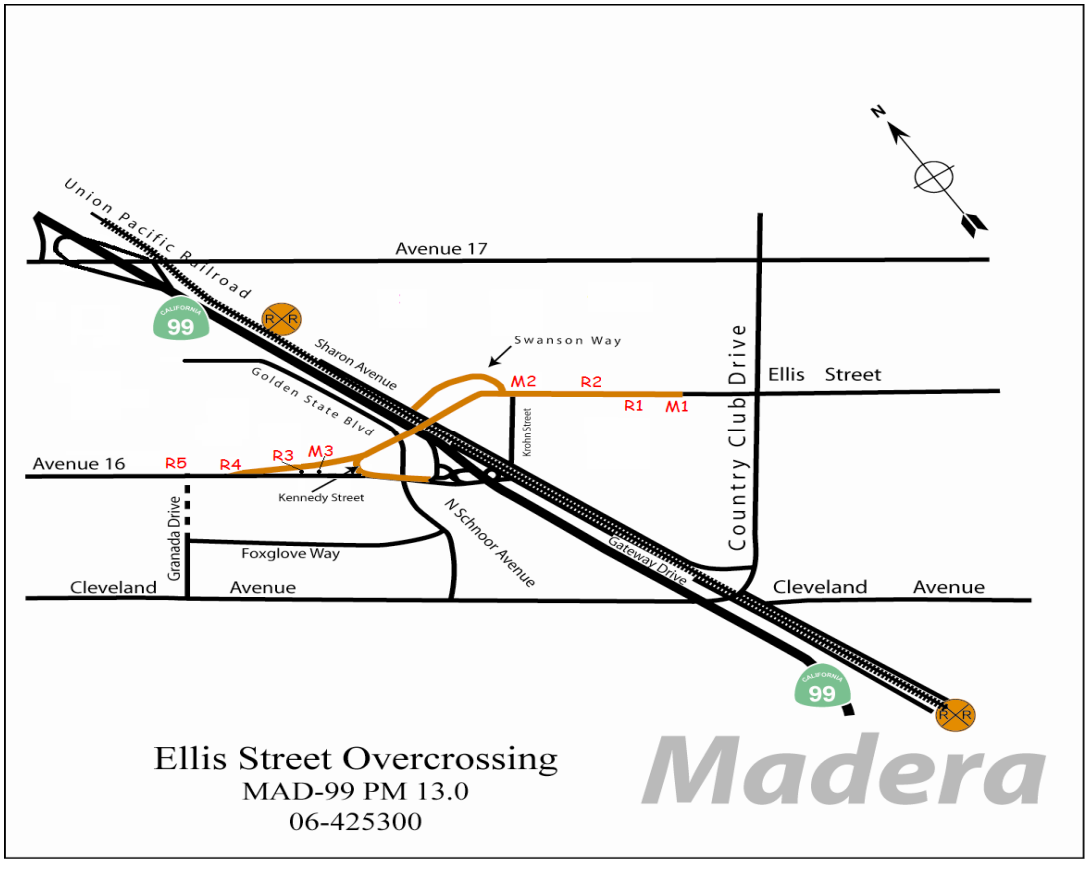


Figure 2-4 Noise Receptor Map

Environmental Consequences under the National Environmental Policy Act

Predicted noise levels in the year 2025 with the project range between 53 and 59 decibels. Therefore, the project is not expected to result in traffic noise impacts except during construction. Based on the predicted low decibel level for future noise, the project would not contribute to cumulative noise impacts.

Environmental Consequences under the California Environmental Quality Act

No significant noise impact would occur under the California Environmental Quality Act because there would not be a substantial increase (12 dBA or more) in future noise levels with the project. When determining whether a noise impact is significant under the California Environmental Quality Act, comparison is made between the no-build noise level and the build noise level.

The California Environmental Quality Act noise analysis is completely independent of the National Environmental Policy Act 23 Code of Federal Regulations 772 analysis discussed above, which is centered on noise abatement criteria. Under the California Environmental Quality Act, the assessment entails looking at the setting of the noise impact and then how large or perceptible any noise increase would be in the given area. Key considerations include the uniqueness of the setting, the sensitive nature of the noise receptors, the magnitude of the noise increase, the number of residences affected, and the absolute noise level.

Construction

It is inevitable that most of the residences and businesses would experience an increase in noise levels in the vicinity of the project due to construction activities. Night construction is expected for the project, and there would be an increased potential for noise impacts on neighboring areas. Specific information on noise from night construction such as hours of impact or decibel level restrictions would be provided at a later stage. Project construction is expected to last about one year.

Noise produced by construction equipment would occur with varying intensity and duration during the various phases of construction. Table 2.14 shows the range of noise emissions from various types of construction equipment at a distance of 50 feet. Temporary barriers can be effective for residences within 200 feet of the right-of-way line. Pile driving is a construction method that generates higher than normal

noise levels, as shown in Table 2.14. A pile driver could be used with the construction of the overcrossing.

Table 2.14 Construction Equipment Noise Ranges

Equipment Type	Average Noise Level (dBA) at 50 feet
Pile Driver	100
Dump Truck	80
Front Loader	80
Backhoe	79
Excavator	76
Dozer	71
Compressor	74
Pump	70

Sources: *U.S. Army Corps of Engineers, Noise Control: Pile Driver Demonstration Project*

Avoidance, Minimization, and/or Abatement Measures

Noise from construction activities would dominate the noise environment in the immediate area. Activities involved in construction would generate noise levels ranging from 85 decibels to 88 decibels at a distance of 50 feet. Construction activities would be temporary, typically occurring during normal working hours. Construction noise during nighttime operation, or use of unusually noisy equipment, would result in annoyance or sleep disruption for nearby residents.

During construction, traffic noise generated by approaching traffic would be reduced due to a reduction in speed required by working road crews. Conversely, traffic noise levels of vehicles leaving the construction area would be slightly higher than normal due to acceleration. The net effect of the accelerating and decelerating traffic on noise would not be appreciable. The most important project-generated noise source would be truck traffic associated with transport of heavy materials and equipment. This noise increase would be brief and limited primarily to daytime hours.

Construction noise is regulated by Caltrans Standard Specifications Section 7-1.011 “Sound Control Requirements.” These requirements state that noise levels generated during construction shall comply with applicable local, state and federal regulations, and that all equipment shall be fitted with adequate mufflers according to the manufacturers’ specifications.

2.3 Biological Environment

In April 2006, a Natural Environment Study was prepared to determine the project's effect on natural resources (Natural Environment Study, April 2006). No natural communities of special concern or special-status plant species were observed within the project limits. However, the area has the potential to provide marginal habitat for non-listed animal species. No special-status species would be affected.

2.3.1 Wetlands and Other Waters of the United States

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Clean Water Act (33 United States Code 1344) is the main law regulating wetlands and waters. The Clean Water Act regulates the discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce.

To classify wetlands for the purposes of the Clean Water Act, a three-parameter approach is used that includes the presence of: hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils subject to saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the Clean Water Act.

Section 404 of the Clean Water Act establishes a regulatory program that provides that no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers with oversight by the Environmental Protection Agency.

The Executive Order for the Protection of Wetlands (Executive Order 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this executive order states that a federal agency, such as the Federal Highway Administration, and Caltrans as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: (1) that there is no practicable alternative to the construction and (2) the proposed project includes all practicable measures to minimize harm.

At the state level, wetlands and waters are regulated mainly by the California Department of Fish and Game and the Regional Water Quality Control Boards. In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission) may also be involved. Sections 1600-1607 of the Fish and Game Code require any agency that proposes a project that would substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify the California Department of Fish and Game before beginning construction. If the California Department of Fish and Game determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement would be required.

The California Department of Fish and Game's jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the U.S. Army Corps of Engineers may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the Department of Fish and Game.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The Regional Water Quality Control Boards also issue water quality certifications in compliance with Section 401 of the Clean Water Act. Please see the Water Quality section for additional details.

Affected Environment

A Wetlands Report for the project was completed in April 2006. No natural drainages or wetland pools were found at the project site, but two vegetation communities were identified at the site: a non-native grassland and a non-native horticultural/ornamental. Non-native grasslands were associated with the fallow agricultural fields (pasture); non-native horticulturals/ornamentals were associated with ruderal (weedy) or developed areas. Native soils of the study area have likely been altered through years by agricultural activities and now lack the qualities needed for wetlands.

Waters of the United States (jurisdictional waters), including areas meeting the technical criteria of jurisdictional wetlands, are absent from the project site. Two irrigation canals pass through the site. They are human-made structures that do not appear to replace the function of natural rivers or creeks. The canals are part of the Madera Irrigation District system. The canal on the east end of the project is not

within the project limits and crosses Ellis Street west of Country Club Drive. The canal on the west end of the project runs parallel to Avenue 16.

Environmental Consequences

The project would not have an effect on either canal. The canal on the east side is not within the project limits, and no improvements would be made to the bridge or roadway crossing this canal. Improvements to the canal on the west end of the project (parallel to Avenue 16) was initially included in the Ellis Street Overcrossing project, but was removed from the project and incorporated into a separate project sponsored by the City of Madera.

That separate project is the Madera Irrigation District Canal Undergrounding and Linear Park and Neighborhood Pathway project (Kennedy Street/Granada Drive). This project would affect the segment of the Madera Irrigation District canal at Avenue 16 within the proposed study area that would fall under the jurisdiction of the U.S. Army Corps of Engineers. Any potential impact to the canal resulting from the Ellis Street Overcrossing project would have already occurred prior to construction of the Ellis Street overcrossing, as would the jurisdictional determination and potential mitigation.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are needed.

2.3.2 Animal Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service, the National Oceanographic and Atmospheric Fisheries Service, and the California Department of Fish and Game are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with wildlife not listed or proposed for listing under the state or federal Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Section 2.3.3. All other special-status animal species are discussed here, including California Department of Fish and Game fully protected species and species of special concern, and the U.S. Fish and Wildlife Service or National Oceanographic and Atmospheric Fisheries Service candidate species.

Federal laws and regulations pertaining to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act
- Marine Mammal Protection Act

State laws and regulations pertaining to wildlife include the following:

- California Environmental Quality Act
- Sections 1601–1603 of the Fish and Game Code
- Sections 4150 and 4152 of the Fish and Game Code

Affected Environment

A biologist with expertise in ornithology (the branch of zoology that deals with birds), wetland ecology, and soil science conducted field surveys during the month of October 2004 for the Natural Environment Study. No natural communities of special concern or special-status plant species were observed within the project limits during field surveys completed for the project.

A database search of State-listed species from the California Department of Fish and Game's California Natural Diversity Database, the California Native Plant Society, and the U.S. Fish and Wildlife Service's federal endangered and threatened species list was conducted and updated in 2007 (see Appendix D). According to the database, at least 29 special-status animal species have the potential to occur within the area.

Field studies were also conducted for all special-status species that could potentially be found within the project impact area. Surveys conducted of the biological study area resulted in the identification of the following bird species with potential to occur within the project area subject to protection under the Migratory Bird Treaty Act (15 U.S. Code 703-711).

Cliff Swallows

Cliff swallows are protected under the Migratory Bird Treaty Act. This species was determined to be nesting under the Madera Irrigation District canal bridge west of the intersection of Ellis Street and Country Club Drive adjacent to the project limits.

Loggerhead Shrike

The loggerhead shrike is listed by the state as a species of special concern. This species was observed foraging over the study area during filed surveys. Trees and

large shrubs found throughout the study area provide suitable nesting habitat for this species.

Western Burrowing Owl

The western burrowing owl is listed by the state as a species of special concern. No evidence of burrowing owl activity was found in the study area. According to the California Natural Diversity Database, there are no known occurrences of burrowing owls within a 3-mile radius of the project site. The burrowing owl is the only owl that routinely lives and nests underground. In California, this species is found in close association with California ground squirrels because it uses the squirrel's abandoned burrows for shelter, roosting, and nesting. Scattered ground squirrel burrows were seen in the study area and may provide habitat.

White-Tailed Kite

The white-tailed kite is listed by the state as a species of special concern. This species was not seen during field studies. Although this species would not likely nest within the project site, it may nest in trees near the project site.

Environmental Consequences

The proposed project would result in the loss of two eucalyptus trees, one each from east and west of State Route 99, and several feet of oleanders from the roadway median. Approximately 11.2 acres of right-of-way are needed for the project. Most of the acres would come from vacant commercial lots or fallow agricultural land currently used for pasture.

Study results concluded the proposed project would have no effect on the species identified. The loss of nesting habitat in the project area is not considered an adverse impact because regionally there is an abundance of available nesting and foraging habitat, and with the implementation of avoidance and minimization measures, there would be no temporary or permanent, direct or indirect impacts.

Avoidance, Minimization, and/or Mitigation Measures

The potential for affecting migratory birds is directly related to the time of year construction of the project would begin. Any potential adverse impacts would be avoided with avoidance or minimization measures. Protection measures for migratory birds (Migratory Bird Provisions) would be included in the construction contract special provisions. Pre-construction surveys would be conducted to determine the presence of any species that require special treatment, avoidance, or

relocation. By adhering to the recommended avoidance and minimization measures, the project would not result in an impact to migratory birds.

To minimize the impact from the loss of the two eucalyptus trees and the shrubs in the median, the City of Madera proposes replacement planting at various locations along State Route 99 within the City of Madera.

2.3.3 Threatened and Endangered Species

Regulatory Setting

The main federal law protecting threatened and endangered species is the Federal Endangered Species Act: United States Code, Section 1531, et seq. See also 50 Code of Federal Regulations Part 402. This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems on which they depend.

Under Section 7 of this act, federal agencies, such as the Federal Highway Administration, and Caltrans as assigned, are required to consult with the U.S. Fish and Wildlife Service and the National Oceanographic and Atmospheric Fisheries Service to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species.

The outcome of consultation under Section 7 is a Biological Opinion or an incidental take statement. Section 3 of the Federal Endangered Species Act defines "take" as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or any attempt at such conduct."

California has enacted a similar law at the state level, the California Endangered Species Act, California Fish and Game Code, Section 2050, et seq. The California Endangered Species Act emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats.

The California Department of Fish and Game is the agency responsible for implementing the California Endangered Species Act. Section 2081 of the Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species. "Take" is defined in Section 86 of the Fish and Game Code

as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” The California Endangered Species Act allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by the California Department of Fish and Game.

For projects requiring a Biological Opinion under Section 7 of the Federal Endangered Species Act, the California Department of Fish and Game may also authorize impacts to the California Endangered Species Act species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

Affected Environment

Field surveys were conducted in October 2004 for the Natural Environment Study that was completed in April 2006. No threatened or endangered species were seen in the study area; however, according to the California Natural Diversity Database, two species have the potential to occur within the project area and are subject to protection under the Federal Endangered Species Act: United States Code, Section 1531, et seq. See also 50 Code of Federal Regulations Part 402 and the California Endangered Species Act, California Fish and Game Code, Section 2050, et seq.:

San Joaquin Kit Fox

The federal status of the San Joaquin kit fox is endangered and the state status is threatened. No evidence of San Joaquin kit fox activity was found in the study area, and the species is not expected to den or forage on the site.

The project site and surrounding area, due to proximity to an urban population and frequent disturbance from agricultural activities, provide marginal to unsuitable habitat for this species. However, according to the U.S. Fish and Wildlife, the San Joaquin kit fox once occurred extensively throughout California’s Central Valley and part of the Salinas and Santa Clara valleys. The species still inhabits some areas of the San Joaquin Valley and the Tulare Basin, but there were only three occurrences of kit fox documented in the project vicinity, with the last sighting in 1993. The closest of the three occurrences was about 5 miles northwest of the site.

Swainson’s Hawk

The Swainson’s hawk is listed by the state as threatened. This species was not seen in the study area during field surveys. According to the California Natural Diversity Database, only two known occurrences of nesting Swainson’s hawks within the general project vicinity have been recorded: one in 1984 and one in 2001. Neither of these occurrences was within a 3-mile radius of the project site. However, tall

blue gum trees along the edges of fallow fields, as well as scattered large trees associated with developed portions of the site, provide potential nesting habitat for this species. Open fields provide potential foraging habitat.

Environmental Consequences

San Joaquin Kit Fox

Based on the studies performed, Caltrans has determined that the proposed project would have no effect on the San Joaquin kit fox; therefore, no consultation under Section 7 of the Federal Endangered Species Act is necessary. The project is not expected to result in temporary or permanent impacts to this species due to the highly disturbed nature of the project site, the proximity of urban development, and scant observation of this species in the area. The project site does not provide any regionally significant habitat for the San Joaquin kit fox and would not contribute to cumulative impacts to this species.

Swainson's Hawk

Although the project would result in the permanent loss of two eucalyptus trees (potential nesting habitat of the Swainson's hawk) and a minor amount of foraging habitat, by adhering to the recommended avoidance and minimization measures, the project would have no effect to this species during nesting; therefore, no consultation with the U.S. Fish and Wildlife Services and the California Department of Fish and Game is necessary. Suitable habitat would still be regionally abundant after construction of the project and would not contribute to cumulative impacts to this species.

Avoidance, Minimization, and/or Mitigation Measures

San Joaquin Kit Fox

No avoidance or minimization measures are needed for the San Joaquin kit fox.

Swainson's Hawk

Protection measures for migratory birds would be included in the construction contract special provisions. Pre-construction surveys would be conducted to determine if any species were present that require special treatment, avoidance, or relocation.

2.3.4 Invasive Species

Regulatory Setting

On February 3, 1999, President Bill Clinton signed Executive Order 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as "any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem, whose introduction does or is likely to cause economic or environmental harm or harm to human health." Federal Highway Administration guidance issued August 10, 1999 directs the use of the state's noxious weed list to define the invasive plants that must be considered as part of the National Environmental Policy Act analysis for a proposed project.

Affected Environment

No invasive species were observed in the study area during field surveys in October 2005 (Natural Environment Study, April 2006). However, annual vegetation had begun to deteriorate, making identification difficult.

The invasive species yellow star thistle (*Centaurea solstitialis)* may exist within the project area, but none was seen during field surveys. This invasive species flourishes in disturbed areas and can be spread by highway improvement projects. During construction, measures would be taken to prevent the introduction and proliferation of this invasive plant species.

Environmental Consequences

The proposed project is not likely to introduce or promote the spread of any invasive species outside the highway corridor; however, measures to avoid introducing invasive species are recommended.

Avoidance, Minimization, and/or Mitigation Measures

No invasive species would be used in any landscaping needed for the project. In compliance with the Executive Order on Invasive Species (Executive Order 13112) and subsequent guidance from the Federal Highway Administration, the landscaping and erosion control included in the project would not use species listed as noxious weeds. In areas of particular sensitivity, extra precautions would be taken if invasive species were found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.

2.4 Climate Change under the California Environmental Quality Act

Regulatory Setting

While climate change has been a concern since at least 1988 as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change, the efforts devoted to greenhouse gas emissions reduction and climate change research and policy have increased dramatically in recent years.

In 2002, with the passage of Assembly Bill 1493, California launched an innovative and proactive approach to dealing with greenhouse gas emissions and climate change at the state level. Assembly Bill 1493 requires the Air Resources Board to develop and implement regulations to reduce automobile and light truck greenhouse gas emissions; these regulations will apply to automobiles and light trucks beginning with the 2009-model year.

Greenhouse gases related to human activity include carbon dioxide, methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (1,1,1,2-tetrafluoroethane), and HFC-152a (difluoroethane).

On June 1, 2005, California Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this executive order is to reduce California's greenhouse gas emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the 2020, and 3) 80 percent below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32, the Global Warming Solutions Act of 2006. Assembly Bill 32 sets the same overall greenhouse gas emissions reduction goals while further mandating that the Air Resources Board create a plan, which includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases."

Executive Order S-20-06, signed on October 17, 2006, further directs state agencies to begin implementing Assembly Bill 32, including the recommendations made by the state's Climate Action Team.

With Executive Order S-01-07, Governor Schwarzenegger set forth the low carbon fuel standard for California. Under this executive order, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020.

Climate change and greenhouse gas reduction is also a concern at the federal level; however, at this time, no legislation or regulations have been enacted specifically addressing greenhouse gas emissions reductions and climate change. However, California, in conjunction with several environmental organizations and several other states, sued to force the U.S. Environmental Protection Agency (EPA) to regulate greenhouse gases as a pollutant under the Clean Air Act (Massachusetts vs. Environmental Protection Agency et al., U.S. Supreme Court No. 05–1120. 549 U.S. _____ [2007]. Argued November 29, 2006—Decided April 2, 2007). The court ruled that greenhouse gases do fit within the Clean Air Act's definition of a pollutant, and that the Environmental Protection Agency does have the authority to regulate greenhouse gases. Despite the Supreme Court ruling, there are no promulgated federal regulations to date limiting greenhouse gas emissions.

Affected Environment

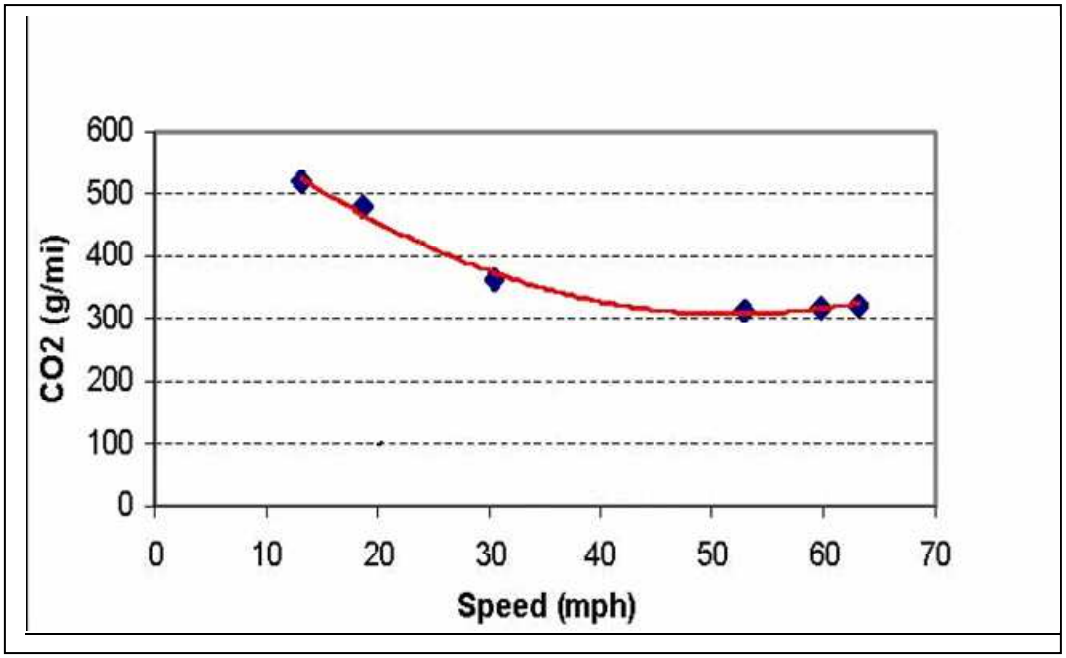
According to *Recommendations by the Association of Environmental Professionals on How to Analyze Greenhouse Gas Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), an individual project does not generate enough greenhouse gas emissions to significantly influence global climate change. Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of greenhouse gases.

Caltrans and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing greenhouse gas emissions reduction and climate change. Recognizing that 98 percent of California's greenhouse gas emissions are from the burning of fossil fuels and 40 percent of all human-made greenhouse gas emissions are from transportation, Caltrans has created and is implementing the Climate Action Program at Caltrans (December 2006). Transportation's contribution to greenhouse gas emissions is dependent on three factors: the types of vehicles on the road, the type of fuel the vehicles use, and the time/distance the vehicles travel.

One of the main strategies in Caltrans' Climate Action Program to reduce greenhouse gas emissions is to make California's transportation system more efficient. The highest levels of carbon dioxide from mobile sources, such as automobiles, occur at stop-and-go speeds (0-25 miles per hour) and speeds over 55 miles per hour; the most severe emissions occur from 0-25 miles per hour (see Figure 2.4 below). Relieving congestion by enhancing operations and improving

travel times in high congestion travel corridors will lead to an overall reduction in greenhouse gas emissions.

Figure 2-4 Fleet Carbon Dioxide (CO2) Emissions vs. Speed (Highway)



Source: Center for Clean Air Policy— http://www.ccap.org/Presentations/Winkelman%20TRB%202004%20(1-13-04).pdf

Environmental Consequences

This project is designed to reduce congestion and reduce the time spent idling at intersections by providing an alternate route for local traffic circulation. Also, by providing a more direct route, the project is expected to reduce time and miles traveled. The project would improve the flow of local traffic and provide for alternative transportation methods (pedestrian and bicycle traffic), thereby reducing carbon dioxide emissions.

Caltrans and the City of Madera recognize the concern that carbon dioxide emissions raise for climate change. However, modeling and gauging the impacts associated with an increase in greenhouse gas emission levels, including carbon dioxide, at the project level is not currently possible. No federal, state, or regional regulatory agency has provided methodology or criteria for greenhouse gas emissions and climate change impact analysis. Therefore, a scientific- or regulatory-based conclusion regarding whether the project's contribution to climate change is cumulatively considerable cannot be provided.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans continues to be actively involved on the Governor's Climate Action Team as the Air Resources Board works to implement Assembly Bills 1493 and 32. As part of the Climate Action Program at Caltrans (December 2006), Caltrans is supporting efforts to reduce vehicle miles traveled by planning and implementing smart land use strategies: job/housing proximity, transit-oriented communities, and high-density housing along transit corridors. Caltrans is working closely with local jurisdictions on planning activities; however, Caltrans does not have local land use planning authority. Caltrans is also supporting efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars and light and heavy-duty trucks. However, it is important to note that control of fuel economy standards is held by the U.S. Environmental Protection Agency and the Air Resources Board.

Lastly, the use of alternative fuels is also being considered; Caltrans is participating in funding for alternative fuel research at the University of California, Davis.

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Chapter 3 Comments and Coordination

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process to determine the scope of environmental documentation, the level of analysis, potential impacts and mitigation measures and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including project development team meetings and interagency coordination meetings. This chapter summarizes the results of the City's efforts to identify, address and resolve, project-related issues through early and continuing coordination.

The City of Madera initiated consideration of the Ellis Street overcrossing in 1991. While preparing its General Plan, the City recognized the need to reduce congestion at the Gateway Drive/State Route 99 interchange and provide an alternative transportation corridor for east-west traffic crossing State Route 99 in the city. The City's General Plan underwent substantial public discussion and public hearings before being adopted. The environmental concerns relative to the General Plan were discussed in the 1992 General Plan Environmental Impact Report.

In 1994, the City began a process to adopt a "specific plan line," also known as a project report, for the Ellis Street overcrossing, and conducted several public hearings on the matter before finally adopting the plan line. The City prepared a Draft Environmental Impact Report for the Ellis Street Specific Plan Line in 1994 that was circulated to the general public, responsible and trustee agencies, and other interested jurisdictions, agencies, and organizations for review and comments. The draft environmental document was circulated for 45 days from December 8, 1994 to January 23, 1995. However, the specific plan line, which included improvements to the Avenue 16/State Route 99 intersection, was withdrawn in 2006 to focus solely on the Ellis Street overcrossing.

A Project Study Report/Project Report for the Ellis Street overcrossing was submitted to Caltrans in June 2007. The document is consistent with, and is an update of, the *Project Study Report in Madera County on Route 99 at Avenue 1*6 (Caltrans, 1999) as well as the updated *Project Study Report on State Route 99 between 0.3 Km north of Cleveland Avenue and 0.1 Km north of Avenue 17* (June 2004).

During the environmental analysis process for cultural resources in May 2006, the Native American Heritage Commission was contacted for a list of Native American tribes, groups, and individuals to contact in regard to potential cultural resources. Letters were mailed to 14 designated tribes, groups, and individuals.

The Madera County Historical Society received a copy of the Historical Property Survey Report also.

Consultation conducted with the State Historic Preservation Officer resulted in concurrence with the determination that there were no historic properties (any prehistoric or historic district, site, building, structure, or object included in or eligible for inclusion in the National Register of Historic Places) within the project area (see Appendix F).

Chapter 4 List of Preparers

The following Caltrans Central Region Environmental staff assisted in the preparation of this document:

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Kay Hutmacher, Principal Landscape Architect, Sierra Designs, Inc. M.L.A., Texas A&M University; B.S.L.A., University of California, Davis; California License #2455; 31 years experience in landscape design and landscape architecture education. Contribution: Prepared Visual Impact Analysis.

Brooke Macdonald, Wildlife Biologist, Live Oak Associates. Area of Expertise: Soils, wildlife (particularly birds), and habitat assessment. Contribution: Conducted the field survey and assisted with the Natural Environment Study with an emphasis on special-status animal species.

Pamela Peterson, Botanist and Wildlife Scientist, Live Oak Associates. Area of Expertise: Wetland delineation, wetland permitting, preparation of California Environmental Quality Act documents, wildlife and botanical surveys, mitigation and monitoring plans. Contribution: Conducted the field survey and assisted with the Natural Environment Study with an emphasis on special-status plant species, natural communities of special concern and wetlands.

C. Kristina Roper, Principal Archaeologist/Owner, Sierra Valley Cultural Planning, LLC. B.A., Anthropology, University of California, Berkeley; M.A., Cultural Resources Management, Sonoma State University; 27 years of archaeological survey and excavation experience, including both prehistoric and historic sites, in California, Nevada, Oregon, and Idaho. Contribution: Prepared Archaeological Survey Report.

Tom Skinner, Principal of Valley Planning Consultants, Inc. B.A., Political Science, California State University, Fresno; 23 years experience as planning consultant. Contribution: Prepared environmental document.

Bill Thiessen, Senior Consultant Brown-Buntin Associates, Inc. B.A., Geology; 25 years experience in noise analysis. Contribution: Prepared environmental noise analysis.

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Appendix A California Environmental Quality Act Checklist

The following checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. The California Environmental Quality Act impact levels include “potentially significant impact,” “less than significant impact with mitigation,” “less than significant impact,” and “no impact.”

Supporting documentation of all California Environmental Quality Act checklist determinations is provided in Chapter 2 of this Initial Study/Environmental Assessment. 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.

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
AESTHETICS – Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	☐	☐	☐	X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	X	☐
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☐	X
AGRICULTURE 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. 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?	☐	☐	☐	X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	X
c) Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	X
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?	☐	☐	☐	X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	X
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 that exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	X
d) Expose sensitive receptors to substantial pollutant concentration?	☐	☐	☐	X
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	X
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?	☐	☐	☐	X
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	X
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?	☐	☐	☐	X
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?	☐	☐	☐	X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X
CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?				
Archaeological resources are considered "historical resources" and are covered under (a).				
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		
d) Disturb any human remains, including those interred outside of formal cemeteries?				X
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.				X
ii) Strong seismic ground shaking?				X
iii) Seismic-related ground failure, including liquefaction?				X
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?				X
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 offsite landslide, lateral spreading, subsidence, liquefaction or collapse?				X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.	☐	☐	☐	X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	X
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?	☐	☐	☐	X
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?	☐	☐	☐	X
c) Emit hazardous emissions or handle hazardous or acutely hazardous material, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	X
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	X
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?	☐	☐	☐	X
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?	☐	☐	☐	X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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?	☐	☐	☐	X
HYDROLOGY AND WATER QUALITY - Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	X
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or offsite?	☐	☐	☐	X
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or offsite?	☐	☐	☐	X
e) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	X
f) Otherwise substantially degrade water quality?	☐	☐	☐	X
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?	☐	☐	☐	X
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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?	☐	☐	☐	X
j) Result in inundation by a seiche, tsunami, or mudflow?	☐	☐	☐	X
LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?	☐	☐	☐	X
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?	☐	☐	☐	X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	X
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?	☐	☐	☐	X
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?	☐	☐	☐	X
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?	☐	☐	☐	X
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	X
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	X

	Potentially significant impact	Less than significant impact 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?			X	
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?				X
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?				X
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)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X
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?				X
Police protection?				X
Schools?				X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
Parks?	☐	☐	☐	X
Other public facilities?	☐	☐	☐	X
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?	☐	☐	☐	X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	X
TRANSPORTATION/TRAFFIC - Would the project:				
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☐	X
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	X
c) Result in a change in air traffic patters, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	X
e) Result in inadequate emergency access?	☐	☐	☐	X
f) Result in inadequate parking capacity?	☐	☐	☐	X
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	X
UTILITY AND SERVICE SYSTEMS - Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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?				X
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?			X	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
e) Result in determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X
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, 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?				X
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)?				X
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?				X

Appendix B Title VI Policy Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
1120 N STREET
P. O. BOX 942873
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5266
FAX (916) 654-6608
TTY (916) 653-4086

Flex your power!
Be energy efficient!

January 14, 2005

TITLE VI
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, and age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

WILL KEMPTON
Director

"Caltrans improves mobility across California"

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Appendix C California Dept. of Transportation Relocation Assistance Program

Relocation Assistance Advisory Services

The California Department of Transportation (Caltrans) would provide relocation advisory assistance to any person, business, farm, or non-profit organization displaced as a result of Caltrans' acquisition of real property for public use. Caltrans would assist residential displacees in obtaining comparable decent, safe, and sanitary replacement housing by providing current and continuing information on sales prices and rental rates of available housing. Non-residential displacees would receive information on comparable properties for lease or purchase.

Residential replacement dwellings would be in equal or better neighborhoods, at prices within the financial means of the individuals and families displaced, and reasonably accessible to their places of employment. Before any displacement occurs, displacees would be offered comparable replacement dwellings that are open to all persons regardless of race, color, religion, sex, or national origin, and are consistent with the requirements of Title VIII of the Civil Rights Act of 1968. This assistance would also include supplying information concerning federal- and state-assisted housing programs, and any other known services being offered by public and private agencies in the area.

Residential Relocation Payments Program

For more information or a brochure on the residential relocation program, please contact Julie Dick-Tex at julie_dick_tex@dot.ca.gov, phone (559) 243-8299, or 2015 E. Shields Avenue, Suite 100, Fresno, CA 93722.

The brochure on the residential relocation program is also available in English at http://www.dot.ca.gov/hq/row/pubs/residential_english.pdf and in Spanish at http://www.dot.ca.gov/hq/row/pubs/residential_spanish.pdf.

If you own or rent a mobile home that may be moved or acquired by Caltrans, a relocation brochure is available in English at http://www.dot.ca.gov/hq/row/pubs/mobile_eng.pdf and in Spanish at http://www.dot.ca.gov/hq/row/pubs/mobile_sp.pdf.

The Business and Farm Relocation Assistance Program

For more information or a brochure on the relocation of a business or farm, please contact Julie Dick-Tex at julie_dick_tex@dot.ca.gov, phone (559) 243-8299, or 2015 E. Shields Avenue, Suite 100, Fresno, CA 93722.

The brochure on the business relocation program is also available in English at http://www.dot.ca.gov/hq/row/pubs/business_farm.pdf and in Spanish at http://www.dot.ca.gov/hq/row/pubs/business_sp.pdf.

Additional Information

No relocation payment received would be considered as income for the purpose of the Internal Revenue Code of 1954 or for the purposes of determining eligibility or the extent of eligibility of any person for assistance under the Social Security Act or any other federal law (except for any federal law providing low-income housing assistance).

Persons who are eligible for relocation payments and who are legally occupying the property required for the project would not be asked to move without being given at least 90 days advance notice, in writing. Occupants of any type of dwelling eligible for relocation payments would not be required to move unless at least one comparable "decent, safe, and sanitary" replacement residence, open to all persons regardless of race, color, religion, sex, or national origin, is available or has been made available to them by the state.

Any person, business, farm, or non-profit organization, which has been refused a relocation payment by Caltrans, or believes that the payments are inadequate, may appeal for a hearing before a hearing officer or the Caltrans' Relocation Assistance Appeals Board. No legal assistance is required; however, the displacee may choose to obtain legal council at his/her expense. Information about the appeal procedure is available from Caltrans' Relocation Advisors.

The information above is not intended to be a complete statement of all of Caltrans' laws and regulations. At the time of the first written offer to purchase, owner-occupants are given a more detailed explanation of the state's relocation services. Tenant occupants of properties to be acquired are contacted immediately after the first written offer to purchase, and also given a more detailed explanation of Caltrans' relocation programs.

Important Notice

To avoid loss of possible benefits, no individual, family, business, farm, or non-profit organization should commit to purchase or rent a replacement property without first contacting a Department of Transportation relocation advisor at:

State of California
Department of Transportation, District 6
1352 West Olive Avenue
Fresno, CA 93778

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Appendix D Special-Status Species List

Below are the listed and proposed species, and critical habitat potentially occurring or known to occur in the project area from the Natural Environmental Study completed for the project.

Table 1: Listed, Proposed Species, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area.

PLANTS (adapted from CNDDB 2004 and CNPS 2001)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rational
Greene's Tuctoria	*Tuctoria greenei*	FE, CR CNPS 1B	Vernal pools, valley and foothill grasslands Occupies dry bottoms of vernal pools in open grasslands.	A	Suitable habitat in the form of vernal pools is absent from the site
Hairy Orcutt Grass	*Orcuttia pilosa*	FE, CE CNPS 1B	Vernal pools California's Central Valley.	A	Suitable habitat in the form of vernal pools is absent from the site.
Succulent Owl's Clover	*Castilleja campestris* ssp. *succulenta*	FT, CE CNPS 1B	Found in vernal pools along the eastern edge of the northern San Joaquin Valley from San Joaquin to Fresno Counties. Most often associated with Laguna Formation soils in Merced County.	A	No vernal pools or suitably wet areas were present Therefore, suitable habitat for this species is considered absent
San Joaquin Orcutt Grass	*Orcuttia inaequalis*	FT, CE CNPS 1B	Inhabits large vernal pools and vernal lakes of the Northeastern San Joaquin ~~Valley. Historic range~~ extended from Stanislaus to Tulare Co.	A	Suitable habitat in the form of vernal pools is absent from the site

Other Species of Special Status Plants

Madera Linanthus	*Linanthus serrulatus*	CNPS 1B	Alkali scrub of San Joaquin Valley from Alameda to Tulare Counties.	A	The site was too disturbed to support populations of native plants Native plants were generally absent from the site
Heartscale	*Atriplex cordulata*	CNPS 1B	Alkali scrub of San Joaquin Valley from Alameda to Tulare Counties.	A	The site was too disturbed to support populations of native plants Native plants were generally absent from the site
Lesser Saltscale	*Atriplex miniscula*	CNPS 1B	Occurs on alkali soils in chenopod scrub, playas, valley and foothill grassland.	A	The site was too disturbed to support populations of native plants Native plants were generally absent from the site
Vernal Pool Smallscale	*Atriplex persistens*	CNPS 1B	Occurs in alkaline vernal pools.	A	Suitable habitat in the form of vernal pools is absent from the site.
Subtle Oracle	*Atriplex subtilis*	CNPS 1B	Occurs in valley and foothill grassland	A	The site was too disturbed to support populations of native plants Native plants were generally absent from the site

Table 1: Listed, Proposed Species, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area.

ANIMALS (adapted from CNDDB 2004)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rational
Vernal Pool Fairy Shrimp	*Branchinecta lynchi*	FT	Endemic to grasslands of California, in bodies of water with a sub-surface hardpan, such as vernal pools.	**A**	Vernal pools and stock ponds that could provide potential habitat for this species are absent from the study area.
Vernal Pool Tadpole Shrimp	*Lepidurus packardi*	FE	Vernal pools and swales.	**A**	Suitable habitat in the form of vernal pools is absent from the site.
Valley Elderberry Longhorn Beetle	*Desmocerus californicus dimorphus*	FT	Lives in elderberry shrubs of the Central Valley and Sierra foothills.	**A**	The site is too disturbed to support native shrubs such as the elderberry.
California Tiger Salamander	*Ambystoma californiense*	FT	Found primarily in annual grass-lands; requires vernal pools for breeding and rodent burrows for refuge.	**A**	Vernal pools in which this species breeds are absent from the site.
Blunt-nosed Leopard Lizard	*Gambelia silas*	FE, CE	Frequents grasslands, alkali meadows and chenopod scrub of the San Joaquin Valley from Merced Co. south to Kern County.	**A**	The disturbed Nature of the site as well as relatively dense non-native grass provide unsuitable habitat for this species.
Giant Garter Snake	*Thamnophis gigas*	FT, CT	Occurs in slow-moving water or emergent wetlands in the San Joaquin and lower Sacramento Valleys.	**A**	Aquatic habitats required for this species were absent from the site.
Swainson's Hawk	*Buteo swainsoni*	CT	Occurs in grasslands and agricul-tural lands of California's Central Valley during the spring and summer. Usually nests in riparian areas	**HP**	This species would at most forage over croplands present on the site. Suitable breeding habitat is absent. Suitable nesting habitat is present along the Fresno River, approx. 2 miles from the study area.
Peregrine Falcon	*Falco peregrinus*	CE	Individuals breed on cliffs in the Sierra or in coastal habitats; occurs in many habitats of the state during migration and winter.	**HP**	This species would at most forage over the study area during migration. Breeding habitat is absent.
San Joaquin Kit Fox	*Vulpes macrotis mutica*	FE, CT	Desert alkali scrub, annual grasslands; may forage in adjacent agricultural habitats	**HP**	The marginal suitability of on-site habitats and lack of reported kit fox sightings in the area are evidence that this species would not occur in habitats of the site.

Table 1: Listed, Proposed Species, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area.

ANIMALS (adapted from CNDDB 2004)

State Species of Special Concern

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rational
Western Spadefoot	*Scaphiopus hammondii*	CSC	Mainly occurs in grasslands of San Joaquin Valley. Vernal pools or other temporary wetlands are required for breeding.	**A**	Vernal pools in which this species breeds are absent from the site.
Mountain Plover	*Charadrius montanus*	PT, CSC	Winters in short grasslands and freshly plowed fields of the Central Valley.	**A**	The study area constitutes marginal winter foraging habitat No CNDDB occurrences are reported for the region.
White-tailed Kite	*Elanus caeruleus*	CSC	Open grasslands and agricultural areas throughout central California.	**HP**	**Possible**. This species may forage over croplands of the site Suitable nesting habitat is absent on-site.
Northern Harrier	*Circus cyaneus*	CSC	Frequents meadows, grasslands, open rangelands, freshwater emergent wetlands; uncommon in wooded habitats.	**HP**	**Possible** This species may occasionally forage over the site Nesting habitat is absent
Sharp-shinned Hawk	*Accipiter striatus*	CSC	Breeds in the mixed conifer forests of the northern Sierra Nevada This species winters in a variety of habitats of the state	**A**	**Unlikely.** This species moves through the region during spring, winter, and fall migrations; however, it would not be expected to regularly or predictably use the site. Breeding habitat is absent.
Cooper's Hawk	*Accipiter cooperii*	CSC	Breeds in oak woodlands, riparian forests and mixed conifer forest of the Sierra Nevada, but winters in a variety of lowland habitats.	**A**	**Unlikely**. Foraging habitat for this species is extremely marginal. Breeding habitat is absent.
Ferruginous Hawk	*Buteo regalis*	CSC	Breeds in the Pacific Northwest and Canada, but winters in a variety of California habitats, including grasslands, savannahs, wetlands, etc.	**HP**	**Possible**. The site provides marginally suitable winter foraging habitat for this species The species breeds at higher latitudes
Golden Eagle	*Aquila chrysaetos*	CSC	Open grasslands, oak savannahs, agricultural fields, etc of San Joaquin Valley and nearby foothills of Inner Coast Range	**A**	The study area constitutes poor quality foraging habitat for this disturbance sensitive species, due to its close proximity to humans. Golden eagles would be more likely to occur in sparsely populated foothill habitats east of the study area. Breeding habitat was absent.

Table 1: Listed, Proposed Species, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area.

ANIMALS (adapted from CNDDB 2004)

State Species of Special Concern (cont)

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rational
Merlin	*Falco columbarius*	CSC	This falcon, which breeds in Ca-nada, winters in a variety of California habitats, including grass-lands, savannahs, wetlands, etc.	HP	Winter migrants may occasionally forage on-site.
Burrowing Owl	*Athene cunicularia*	CSC	Found in open, dry grasslands, deserts and ruderal areas Requires suitable burrows.	HP	Suitable nesting and foraging habitat are present Evidence of this species was not found on site.
Long-eared Owl	*Asio otus*	CSC	Occurs in riparian woodlands and forests of the state.	A	The site does not provide suitable habitat for this species due to site disturbance.
Short-eared Owl	*Asio flammeus*	CSC	Transient or occasional breeder in grasslands, marshes, and some croplands of the Central Valley.	HP	This species may forage over the study area on occasion. Breeding habitat is absent
Loggerhead Shrike	*Lanius ludovicianus*	CSC	Grasslands and other open habitats of the Central Valley Uses prominent features such as fence posts for perching.	P	This species is common in the region and may use the site for foraging and nesting
California Horned Lark	*Eremophila alpestris actia*	CSC	Found in a variety of open habitats where trees and shrubs are absent; breeds in grasslands and fallow fields.	HP	This species is likely to forage on-site, but breeding habitat is marginal
Tri-colored Blackbird	*Agelaius tricolor*	CSC	Occurs near fresh water with dense cattails, or thickets of willows or shrubs.	HP	This species may forage on-site; however, breeding habitat is absent
Yellow Warbler	*Dendroica petechia brewster*	CSC	Breeds in riparian thickets of alder, willow and cottonwoods. Migrants move through many habitats of the state.	A	This species would at most pass through during migration
Spotted Bat	*Euderma maculatum*	CSC	Occurs primarily in foothill and mountain habitats of the southern Sierra and Transverse Ranges.	A	This species is not often found in the Central Valley, although the site may provide marginal foraging habitat Roosting habitat is absent.

Table 1: Listed, Proposed Species, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area.

ANIMALS (adapted from CNDDB 2004)

State Species of Special Concern (cont.)

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rational
Townsend's Big-eared Bat	*Corynorhinus townsendii townsendii*	CSC	Primarily a cave-dwelling bat that may also roost in buildings. Occurs in a variety of habitats.	**HP**	The site provides potential foraging habitat for this species Roosting habitat is absent
Pallid Bat	*Antrozous pallidus*	CSC	Roosts in rocky outcrops, cliffs, and crevices with access to open habitats for foraging. May also roost in caves, mines, hollow trees and buildings.	**HP**	The site provides potential foraging habitat for this species. Roosting habitat is absent
California Mastiff Bat	*Eumops perotis ssp californicus*	CSC	Frequents open, semi-arid to arid habitats, including conifer, and deciduous woodlands, coastal scrub, grasslands, palm oasis, chaparral and urban. Roosts in cliff faces, high buildings, trees and tunnels.	**HP**	The site provides potential foraging habitat for this species Roosting habitat is absent

Explanation of Habitat Occurrence, Designations, and Status Codes

Absent [A]: No habitat present and no further work needed.
Habitat Present [HP]: Habitat is, or may be present. The species may be present.
Present [P]: This species is present.
Critical Habitat [CH]: The project footprint is located within a designated critical habitat unit, but does not necessarily mean that appropriate habitat is present.

STATUS CODES

FE	Federally Endangered	CE	California Endangered
FT	Federally Threatened	CT	California Threatened
FPT	Federally Proposed Threatened	CSC	California Species of Special Concern
FC	Federal Candidate	CNPS	California Native Plant Society Listing
FPD	Federally (Proposed) Delisted	CP	California Protected

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Appendix E Avoidance, Minimization and/or Mitigation Summary

Area	Impact	Avoidance, Minimization and/or Mitigation Measures
Community Impact/ Relocations	Right-of-way acquisition	A process would be initiated, consistent with federal and state law, for the acquisition of land for the proposed project. This process includes the appraisal of the land by a qualified appraiser and the establishment of a fair market value for the land to be acquired, which would be offered to the property owner.
Utilities and Emergency Services	Delays and detours during construction	A Traffic Management Plan would be developed to accommodate local traffic patterns and reduce delay, congestion, and accidents. The plans and specifications for the project would include coordination with affected public utilities to minimize disruption of services to less than four hours in any given day, and include diligent efforts to provide utility customers with advance notice of any anticipated interruption in service.
Traffic and Transportation/ Pedestrian and Bicycle Facilities	Construction delays and detours	A Traffic Management Plan to minimize delays will be developed. Before construction, all public agencies, including schools, will be advised of the traffic management plan. Notification in local newspapers as well as street signs will be provided before the closure of streets.
	Level of Service	Installation of traffic signals and turn lanes at intersections with level of service below "D" where possible.
	Construction disruption to railroad	Coordination with the Union Pacific Railroad Company during construction to minimize disruption to mainline railroad traffic
Visual and Scenic Resources	Bridge overcrossing/ earthern berms	The visual impacts would be mitigated with the installation of landscape and irrigation.
	Removal of trees and vegetation	The City of Madera proposes to provide 58 plants in 5-gallon containers for replacement planting at various locations along State Route 99 within the City of Madera. The plants would become the property of the State and would be planted within the State right-of-way by Caltrans Maintenance crews or others. The planting of the plants would be the responsibility of the State.

Area	Impact	Avoidance, Minimization and/or Mitigation Measures
Water Quality and Stormwater	Abandoned Water Wells	If any abandoned water wells are located on land acquired for this project, they will be properly sealed or destroyed to prevent potential contaminants from entering the groundwater. The City of Madera would be responsible for abandoning water wells in the acquired right-of-way in accordance with Madera County Environmental Health Department.
	Storm Water Pollution Prevention Plan	An potential impacts (erosion, accidental spills of hazardous material, and disruption of natural drainage patterns) must be addressed, avoided or minimized to the maximum extent practicable during the design and construction of the project by incorporating into the project the appropriate permanent and temporary Best Management Practices, which are generally refined as the project progresses through the planning stage and into final design. The contractor, as required in Caltrans Standard Specification Section 7-1.01G, must address all potential water quality impacts that may occur during construction. Subject to Caltrans' and the City of Madera review and approval, the contractor will prepare both the Storm Water Pollution Prevention Plan (SWPPP) and the Water Pollution Control Program (WPCP). The plan and program identify construction activities that may cause pollutants in storm water and measures to control these pollutants.
Geology/ Soils/ Seismic/ Topography	Erosion Control	A qualified geologist or civil engineer shall prepare an erosion control plan for the project. The erosion control plan shall comply with the California Regional Water Quality Control Board, Central Valley Region general construction permit specifications and with the San Joaquin Valley Air Pollution Control District rules contained in Regulation VIII. Shrink/swell problems will be avoided by using the standard California Department of Transportation design and construction procedures as contained in the Highway Design Manual and Standard Specifications.

Area	Impact	Avoidance, Minimization and/or Mitigation Measures
Paleontology	Possible discoveries during construction activities	Before construction, a qualified paleontologist would be retained to both design a monitoring and mitigation program and implement the program during all project-related ground disturbances. Mitigation would include: • Nonstandard special provisions would be included in the construction contract special provisions section to advise the construction contractor of the requirement to cooperate with the paleontological salvage • A qualified principal paleontologist (M.S. or Ph. D. in paleontology or geology familiar with paleontological procedures and techniques) would be retained to prepare a detailed Paleontogical Mitigation Plan prior to the start of construction. All geologic work would be performed under the supervision of a California Professional Geologist The qualified principal paleontologist would be present at pre-grading meetings to consult with grading and excavation contractors. Near the beginning of excavations, the principal paleontologist would conduct an employee environmental awareness training session for all persons involved in earth moving for the project. • A paleontological monitor, under the direction of the qualified principal paleontologist, would be onsite to inspect cuts for fossils at all times during original grading involving sensitive geologic formations. • When fossils are discovered, the paleontologist (or paleontological monitor) would recover them. Construction work in these areas would be halted or diverted to allow recovery of fossil remains in a timely manner. • Bulk sediment samples would be recovered from fossiliferous horizons and processed for microvertebrate remains as determined necessary by the principal paleontologist. • Fossil remains collected during the monitoring and salvage portion of the mitigation program would be cleaned, repaired, sorted, and catalogued. • Prepared fossils, along with copies of all pertinent field notes, photos, and maps, would then be deposited in a scientific institution with paleontological collections. A final report that outlines the results of the mitigation program would be completed and signed by the Principal Paleontologist and Professional Geologist.

Area	Impact	Avoidance, Minimization and/or Mitigation Measures
Air Quality	Dust control during construction	Caltrans Standard Specifications pertaining to dust control and dust palliative requirements are a required part of all construction contracts and should effectively reduce and control emission impacts during construction. The provisions of Caltrans Standard Specifications, Section 7-1/OF "Air Pollution Control" and Section 10 "Dust Control," require the contractor to comply with the San Joaquin Valley Air Pollution Control District's rules, ordinances, and regulations. The San Joaquin Valley Air Pollution Control District regulates construction emissions through its Regulation VIII**,** which requires preparation of a dust control plan to be submitted to the Control District 30 days before the start of construction. Violations of the requirements of Regulation VIII are subject to enforcement action. The generation of visible dust clouds and/or generation of complaints indicate violations. With implementation of Regulation VIII controls and the additional measures listed below, construction impacts would be reduced to a less-than-significant level. The City of Madera would require the primary construction contractor to prepare and submit to the San Joaquin Valley Air Pollution Control District a dust control plan that incorporates all provisions of Regulation VIII and the following additional measures: • Limit traffic speeds on unpaved roads to 15 miles per hour. • Install wheel washers or other forms of wheel cleaners at truck exits, and wash loose dirt from trucks and equipment leaving the site. • Suspend excavation and grading activities when winds exceed 20 miles per hour. • Limit size of area subject to excavation, grading or other construction activity at any one time to avoid excessive dust. • Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent. • Make maximum use of diesel equipment equipped with catalytic converters and particulate traps. • Curtail construction during "Spare the Air Days" declared by the San Joaquin Valley Air Pollution Control District. • Turn off equipment not in use for more than 10 minutes.

Air Quality *(Continued from previous page)*	Dust control during construction	• Limit the hours of operation of heavy-duty Equipment and/or the amount of equipment in use. • Whenever feasible and cost effective, use electrically driven equipment (provided equipment is not run via a portable generator set) or alternatively fueled equipment/vehicles.

Area	Impact	Avoidance, Minimization and/or Mitigation Measures
Noise	Construction activities	Construction noise is regulated by Caltrans Standard Specification Section 7-1.011 "Sound Control Requirements." These requirements state that noise levels generated during construction shall comply with applicable local, state and federal regulations, and that all equipment shall be fitted with adequate mufflers according to the manufacturers' specifications.

Biology/ Animal Species	Temporary construction impacts to nesting migratory birds	The potential for affecting migratory birds is directly related to the time of year construction of the project would begin. Any potential adverse impacts would be avoided with avoidance or minimization measures. Protection measures for migratory birds (Migratory Bird Provisions) would be included in the construction contract special provisions. Pre-construction surveys would be conducted to determine the presence of any species that require special treatment, avoidance, or relocation. By adhering to the recommended avoidance and minimization measures, the project would not result in an impact to migratory birds. To minimize the impact from the loss of the two eucalyptus trees and shrubs from the median, the City of Madera proposes replacement planting at various locations along State Route 99 within the City of Madera.
Biology/ Threatened and Endangered Species	Temporary construction impacts to nesting migratory birds	<u>San Joaquin Kit Fox</u> - No avoidance or minimization measures are needed for the San Joaquin kit fox because the species was determined absent from the project area. <u>Swainson's Hawk</u> - Protection measures for migratory birds would be included in the construction contract special provisions. Pre-construction surveys would be conducted to determine if any species were present that require special treatment, avoidance, or relocation.

Biology/ Invasive Species	Construction impacts	No invasive species would be used in any landscaping needed for the project. In compliance with the Executive Order on Invasive Species (Executive Order 13112) and subsequent guidance from the Federal Highway Administration, the landscaping and erosion control included in the project would not use species listed as noxious weeds. In areas of particular sensitivity, extra precautions would be taken if invasive species were found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.

Appendix F State Historic Preservation Officer Concurrence Letters

2006 State Historic Preservation Officer Concurrence Letter

STATE OF CALIFORNIA – THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, *Governor*

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
BOX 942896
AMENTO CA 94296-0001
) 653-6624 Fax: (916) 653-9824
calshpo@ohp parks ca gov
www ohp parks ca gov

June 8, 2006 Reply To: FHWA060519B

Bobi Lyon-Ritter, Chief, CAL-Bear Environmental Branch
Department of Transportation
2015 East Shields Avenue, Suite A-100
Fresno, CA 93726-5428

Re: Determination of Eligibility for the Proposed Improvement of Ellis Street Overcrossing, Madera, CA

Dear Ms. Lyon-Ritter:

Thank you for consulting with me about the subject undertaking in accordance with the *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* (PA).

The California Department of Transportation is requesting my concurrence, pursuant to Stipulation VIII.C.5 of the PA, that the following properties are not eligible for the National Register of Historic Places:

- Segment of Lateral 24.2 (MID Canal)
- 25757 Ellis Avenue
- Segment of the Union Pacific Railroad
- Segment of Lateral 24.2x13.2
- 25183 Avenue 16

Based on my review of the submitted documentation, I concur.

Thank you for considering historic properties during project planning. If you have any questions, please contact Natalie Lindquist of my staff at (916) 654-0631 or e-mail at nlindquist@parks.ca.gov.

Sincerely,

Susan K Stratton for

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

1998 State Historic Preservation Officer Concurrence Letter

STATE OF CALIFORNIA — THE RESOURCES AGENCY PETE WILSON, Governor

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942896
SACRAMENTO 94296-0001
(916) 653-6624
FAX: (916) 653-9824

December 14, 1998

REPLY TO: FHWA981130C

Mr. Larry Red, Planning Director
City of Madera
205 West 4th Street
Madera, CA 93637-3527

RECEIVED
DEC 24 1998
CITY OF MADERA
PLANNING DEPARTMENT

Project: **Ellis Avenue/Avenue 16 Overcrossing Project, City of Madera, Madera County, California**

Dear Mr. Red:

Thank you for assisting the Federal Highway Administration (FHWA) with its Section 106 of the National Historic Preservation Act (NHPA) compliance responsibilities.

It is evident that the Area of Potential Effect (APE) for this undertaking has been the subject of an appropriate level of investigation. The results of the records search and field inventory conducted by Dr. L. Kyle Napton were negative. No historic properties (i.e., any prehistoric or historic district, site, building, structure, or object included in or eligible for inclusion in, the National Register of Historic Places) were identified within the APE of your undertaking, as currently designed.

Please provide the individual who is serving as your point of contact with FHWA a copy of this letter so that they can conclude FHWA's Section 106 compliance responsibilities for this undertaking in an appropriate manner.

Thank you for considering historic properties during project planning. If you have any questions regarding our review of this undertaking, please contact archaeologist Chuck Whatford of my project review staff at (916) 653-2716 or calshpo.chuck@quiknet.com.

Sincerely,

Daniel Abeyta
Acting State Historic Preservation Officer

Appendix G National Resource Conservation Service Farmland Conversion Impact Rating

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
425 North Gateway, Suite K
Madera, CA 93637
(559) 674-2108

September 18, 2007

Julie Dick Tex, Assoc Environmental Planner
Unit 189, Central Region Planning Branch
2015 E Shields, Suite 100
Fresno, CA 93726

RE: Ellis Street Over-crossing

Dear Julie,

At your request we have reviewed the area for the proposed Ellis Street Over crossing in Madera

Enclosed is the Farmland Conversion Impact Rating Form AD-1006 with NRCS additions stating no prime, unique or important farmland soils are present within the proposed project area Based on this information, it has been determined the Farmland Protection Policy Act (FPPA) does not apply

Sincerely,

Jennifer Gabor
Soil Conservationist

The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment.

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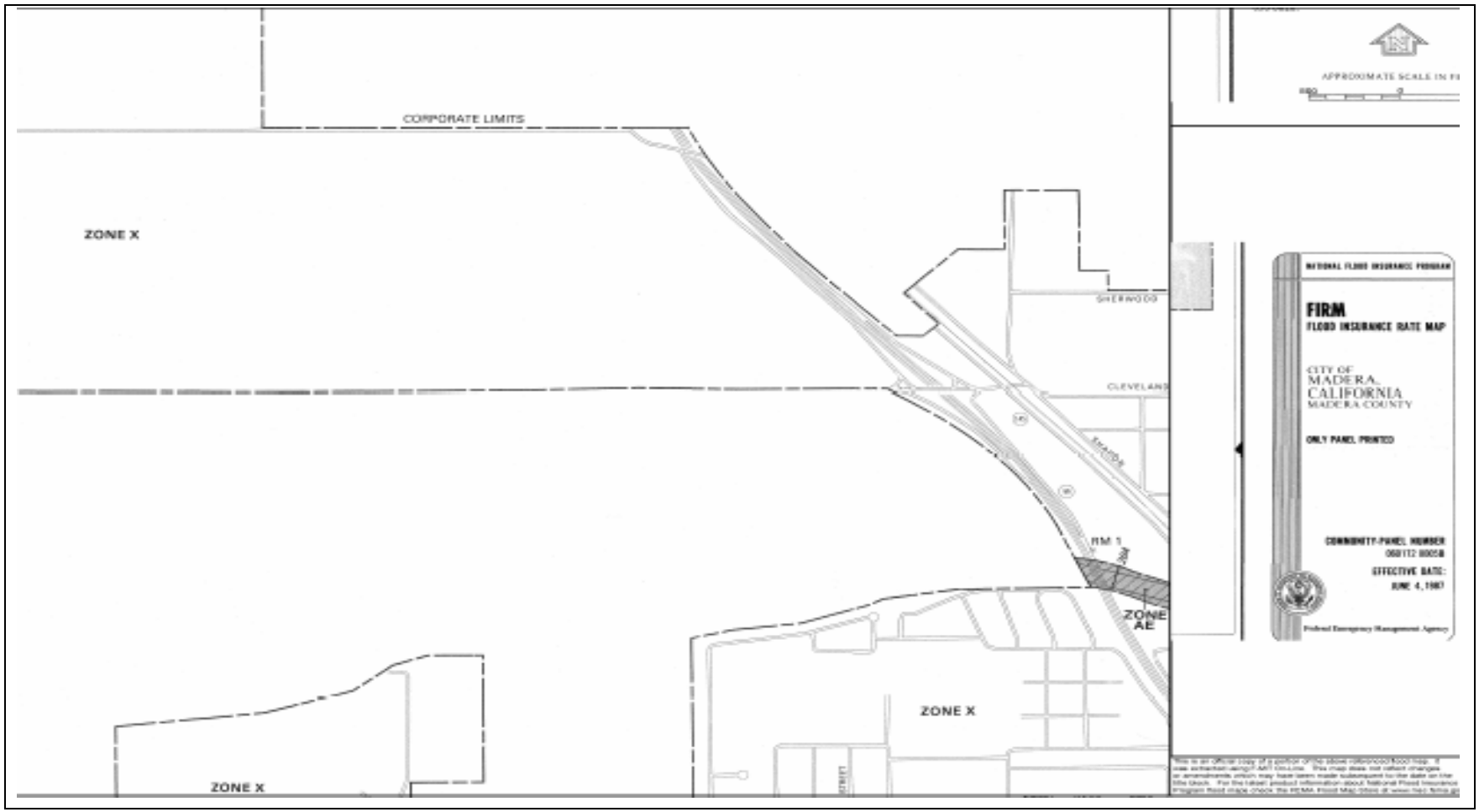
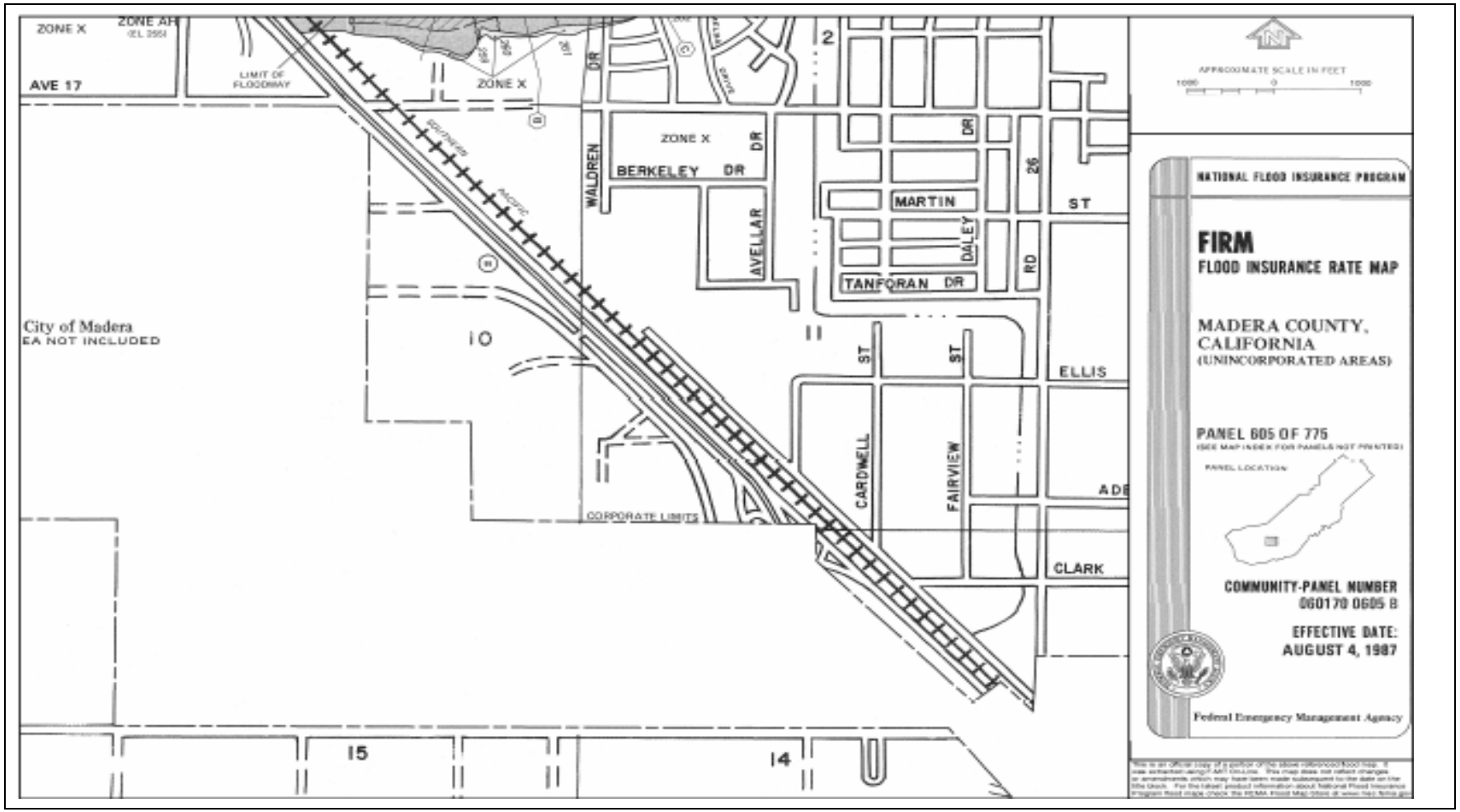
Appendix H Floodplain Maps



This portion of the Flood Insurance Rate Map shows the project area located within the city. Avenue 16 travels along the corporate limits indicated near Zone X.



This portion of the Flood Insurance Rate Map shows the project area located within the county. Ellis Street is indicated to the right and portions of the Avenue 16/State Route 99 interchange is located near the corporate limits indicated.

Appendix I Comments and Responses

The City of Madera distributed the Initial Study with Proposed Mitigated Negative Declaration / Environmental Assessment with the review period commencing on March 25, 2008 and closing on April 25, 2008. The City received comment letters from the following agencies:

1. Native American Heritage Commission
2. Madera Irrigation District
3. Department of California Highway Patrol.

The three comment letters are attached along with the City's response to the comments.

The City of Madera conducted an Open House Public Meeting for the proposed project and the associated Initial Study with Proposed Mitigated Negative Declaration / Environmental Assessment on April 9, 2008. Attendees were given an opportunity to write questions and comments utilizing comment cards made available at the meeting, or ask questions verbally of staff. Seven (7) attendees opted for the latter. No public meeting comment cards were received at the end of the public meeting or returned to the City by the April 25, 2008 close of comments date.

Attached is the attendees sign in sheet, as well as a summary of the questions asked verbally by meeting attendees, and City staff's responses.

STATE OF CALIFORNIA
GOVERNOR'S OFFICE of PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

May 1, 2008

Les Jorgensen
City of Madera
205 W. Fourth Street
Madera, CA 93637

Subject: Ellis Street Overcrossing
SCH#: 2008032091

Dear Les Jorgensen:

The enclosed comment (s) on your Joint Document was (were) received by the State Clearinghouse after the end of the state review period, which closed on April 23, 2008. We are forwarding these comments to you because they provide information or raise issues that should be addressed in your final environmental document.

The California Environmental Quality Act does not require Lead Agencies to respond to late comments. However, we encourage you to incorporate these additional comments into your final environmental document and to consider them prior to taking final action on the proposed project.

Please contact the State Clearinghouse at (916) 445-0613 if you have any questions concerning the environmental review process. If you have a question regarding the above-named project, please refer to the ten-digit State Clearinghouse number (2008032091) when contacting this office.

Sincerely,

Terry Roberts

Terry Roberts
Senior Planner, State Clearinghouse

Enclosures
cc: Resources Agency

Post-it® Fax Note 7671	Date 5-2-08	# of pages 6
To Steve Greer	From Sheila Bloom	
Co./Dept. Madera	Co. OPR	
Phone # 661-5436	Phone # 916 445 0613	
Fax # 559 674-2972	Fax # 323-3018	

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

State of California—Business, Transportation and Housing Agency ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF CALIFORNIA HIGHWAY PATROL
Madera Area
3051 Airport Drive
Madera, CA 93637-8709
(559) 675-1025
(800) 735-2929 (TT/TDD)
(800) 735-2922 (Voice)

April 24, 2008:

File No.: 450.11396.12343

Clear 4-23-08 late e

State Clearing House
1400 Tenth Street, Room 121
Sacramento, CA 95814

RE: SCH ~~#2008031091~~ 2008032091

State Clearing House:

The staff at the Madera office of the California Highway Patrol (CHP) has reviewed the Environmental Impact Report (EIR) regarding the proposed Ellis Street Overcrossing Project, (SCH #2008031091). The CHP is the primary agency providing traffic law enforcement, traffic safety, and traffic management of the unincorporated areas, along State Route 99 within Madera County. After a thorough review of this document, we offer the following comments:

The proposed transportation project is located within the jurisdictional responsibility of the Madera Police Department. The CHP strongly believes this project is necessary to alleviate east/west traffic congestion currently on Gateway Drive, Cleveland Avenue and Avenue 16. Traffic patterns have shown a steady increase through Madera city limits in this area due to the increase in single family dwellings near the proposed project area. The EIR identified the need for the new project to manage future expected increases in both local and arterial traffic. The City of Madera currently has plans for developing the county fairgrounds and the surrounding area on Cleveland Avenue west of State Route 99. The City of Madera is also anticipating the addition of several commercial "big box" stores near the project area. Traffic from these commercial developments will feed from local roadways into the expected project area thereby increasing traffic volumes over current levels. Traffic volume is expected to increase 60 percent above current levels by the year 2025.

Two alternatives were evaluated within the EIR. A Build alternative addressed the consequences of the project going forward, and a No-Build alternative to address the consequences on non-action. Expected traffic volumes in the project area are expected to increase to a level of approximately 47,000 vehicles per day. A No-Build alternative would result in very long traffic delays, traffic flow failure and extreme congestion. Delays of over 35 seconds per vehicle are predicted, with the potential for traffic delays up to 50 seconds per vehicle being possible. This means traffic in the proposed project area would have the affected roadways either at or near full capacity and the flow of traffic at best would be unstable. The Build alternative is clearly the

best solution considering the potential negative impact to the Department's main mission of traffic management. Madera Area strongly supports the Build alternative to this project. Any departmental input in support of the Build alternative would be favorable.

Should there be questions regarding these comments, please contact me at (559) 675-1025.

Sincerely,

D. PARIS, Lieutenant
Commander
Madera Area

cc: Special Projects Section – CHP
Central Division – CHP

MAY-02-2008 16:52 STATE CLEARINGHOUSE P.03

Document Details Report
State Clearinghouse Data Base

SCH#	2008032091
Project Title	Ellis Street Overcrossing
Lead Agency	Madera, City of
Type	JD Joint Document
Description	The City of Madera and Caltrans are proposing an overcrossing of State Route 99 located in the northwestern portion of the City of Madera, north of Kennedy Avenue (Avenue 16) and south of Avenue 17. The proposed project commences 500 feet west of the Avenue 16 and Granada Drive intersection and stretches diagonally on a new alignment 2,100 linear feet to the northeast over State Route 99 to the intersection of Krohn Street and Ellis Street. Also included is the reconstruction of Ellis Street between Krohn Street and the MID Canal west of Country Club Drive within the existing right-of-way. The proposed project includes acquisition of required right-of-way within the existing Ellis Street Overcrossing specific plan area between Granada Drive and Krohn Street and long Schnoor Avenue north of Kennedy Street (Avenue 16).

Lead Agency Contact

Name	Les Jorgensen
Agency	City of Madera
Phone	(559) 661-5418 *Fax*
email	
Address	205 W. Fourth Street
City	Madera *State* CA *Zip* 93637

Project Location

County	Madera
City	Madera
Region	
Cross Streets	State Route 99 and Ellis Street alignment
Parcel No.	
Township	11 *Range* 17 *Section* 11 *Base*

Proximity to:

Highways	SR 99
Airports	Madera Municipal Airport
Railways	Union Pacific
Waterways	
Schools	
Land Use	

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Noise; Public Services; Soil Erosion/Compaction/Grading; Traffic/Circulation; Water Quality; Wetland/Riparian; Wildlife

Reviewing Agencies Resources Agency; Regional Water Quality Control Bd., Region 5 (Fresno); Department of Parks and Recreation; Native American Heritage Commission; Public Utilities Commission; Office of Historic Preservation; Department of Fish and Game, Region 4; Department of Water Resources; Department of Conservation; California Highway Patrol; Caltrans, District 6; Caltrans, Division of Aeronautics; Air Resources Board, Transportation Projects

Date Received 03/25/2008 *Start of Review* 03/25/2008 *End of Review* 04/23/2008

Note: Blanks in data fields result from insufficient information provided by lead agency.

STATE OF CALIFORNIA
GOVERNOR'S OFFICE of PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

April 24, 2008

Les Jorgensen
City of Madera
205 W. Fourth Street
Madera, CA 93637

Subject: Ellis Street Overcrossing
SCH#: 2008032091

Dear Les Jorgensen:

The State Clearinghouse submitted the above named Joint Document to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on April 23, 2008, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

STATE OF CALIFORNIA — Arnold Schwarzenegger, *Governor*

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
(916) 657-5390 - Fax

April 1, 2008

RECEIVED
APR 14 2008
STATE CLEARING HOUSE

Clear 4-23-08

Les Jorgensen
City of Madera
205 W. Fourth Street
Madera, CA 93637

RE: SCH# 2008032091 Ellis Street Overcrossing; Madera County.

Dear Mr. Jorgensen:

The Native American Heritage Commission (NAHC) has reviewed the Notice of Completion (NOC) referenced above. The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resource, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA Guidelines 15064(b)). To comply with this provision the lead agency is required to assess whether the project will have an adverse impact on historical resources within the area of project effect (APE), and if so to mitigate that effect. To adequately assess and mitigate project-related impacts to archaeological resources, the NAHC recommends the following actions:

- ✓ Contact the appropriate regional archaeological Information Center for a record search. The record search will determine:
  - If a part or all of the area of project effect (APE) has been previously surveyed for cultural resources.
  - If any known cultural resources have already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present
- ✓ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.
- ✓ Contact the Native American Heritage Commission for:
  - A Sacred Lands File Check. **USGS 7.5 minute quadrangle name, township, range and section required.**
  - A list of appropriate Native American contacts for consultation concerning the project site and to assist in the mitigation measures. **Native American Contacts List attached.**
- ✓ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
  - Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
  - Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.
  - Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5(e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

Sincerely,
Katy Sanchez
Katy Sanchez
Program Analyst

CC: State Clearinghouse

TOTAL P.006

Comments from Native American Heritage Commission

STATE OF CALIFORNIA

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
(916) 657-5390 - Fax

Arnold Schwarzenegger, *Governor*

April 1, 2008

Les Jorgensen
City of Madera
205 W. Fourth Street
Madera, CA 93637

RE: SCH# 2008032091 Ellis Street Overcrossing; Madera County.

Dear Mr. Jorgensen:

The Native American Heritage Commission (NAHC) has reviewed the Notice of Completion (NOC) referenced above. The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resource, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA Guidelines 15064(b)). To comply with this provision the lead agency is required to assess whether the project will have an adverse impact on historical resources within the area of project effect (APE), and if so to mitigate that effect. To adequately assess and mitigate project-related impacts to archaeological resources, the NAHC recommends the following actions:

- ✓ Contact the appropriate regional archaeological Information Center for a record search. The record search will determine: 1
  - If a part or all of the area of project effect (APE) has been previously surveyed for cultural resources.
  - If any known cultural resources have already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present
- ✓ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey. 2
  - The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.
- ✓ Contact the Native American Heritage Commission for:
  - A Sacred Lands File Check. **USGS 7.5 minute quadrangle name, township, range and section required.** 3
  - A list of appropriate Native American contacts for consultation concerning the project site and to assist in the mitigation measures. **Native American Contacts List attached.**
- ✓ Lack of surface evidence of archeological resources does not preclude their subsurface existence. 4
  - Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
  - Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans. 5
  - Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5(e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

Sincerely,
Katy Sanchez
Katy Sanchez
Program Analyst

CC: State Clearinghouse

Response to Native American Heritage Commission Comments Letter

City of Madera
Planning Department

June 11, 2008

Native American Heritage Commission
Katy Sanchez
915 Capitol Mall, Room 364
Sacramento, CA 95814

SUBJECT: SCH# 2008032091 Ellis Overcrossing; Madera County, City of Madera

Dear Ms. Sanchez:

The City of Madera Planning Department has received a comment letter in regards to the Initial Study with proposed Mitigated Negative Declaration/Environmental Assessment for the Ellis Street Overcrossing at SR 99, dated April 1, 2008. Staff has reviewed your agency's comments and concerns and has the following response:

- A Record Search at the Southern San Joaquin Valley Archeological Information Center (SSJVIC) was completed May 1, 2006. This search confirmed the findings of a previous SSJVIC Records Search, dated December 7, 2001 (RS#01-023), which indicated no properties within the APE had been determined eligible for National Register status. The search also indicated that two surveys had occurred previously within the project APE. [1]

- A Historic Property Survey Report (HPSR) and Historical Resources Evaluation Report (HRER) were prepared by Kelly Hobbs, Principal Architectural Historian (District 6 Caltrans PQS), and peer reviewed by Chris Brewer, Principal Architectural Historian (District 6 Caltrans PQS), May 2006. [2]

- Native American Tribal representatives included on the current NAHC Native American Contacts list were notified by letter on May 9, 2006. No comments of note were received by any of the tribal representatives listed. [3]

- An Archaeological Survey Report (ASR) was prepared by Kristina Roper, June 2001, updated by memo 2005. The ASR was reviewed by Lisa Nishimura, Lead Archaeological Surveyor, in consultation with Jeanne Binning, Principal Investigator Prehistoric Archaeology, May 2006. [4]

- Avoidance, minimization and/or mitigation measures have been included as part of the project. Before construction, a qualified paleontologist will be retained to both design a monitoring and mitigation program and implement the program during all project related ground disturbances. All geologic work will be performed under the supervision of a California Professional Geologist. [5]

If you have any additional questions or comments regarding this project, please contact Les Jorgensen, Project Manager at (559) 661-5429, ljorgensen@cityofmadera.com, or Steven Greer, Senior Planner at (559) 661-5436, sgreer@cityofmadera.com.

Cordially,

Steven Greer
Senior Planner

205 W. 4th Street, CA 93637 – TEL (559) 661-5430 - FAX (559) 674-2972
www.cityofmadera.org

Comments from Madera Irrigation District

MADERA IRRIGATION DISTRICT
12152 ROAD 28 ½ • MADERA • CA 93637-9199 • (559) 673-3514 • FAX (559) 673-0564

March 27, 2008

RECEIVED
APR 01 2008
CITY OF MADERA
ENGINEERING DEPARTMENT

Mr. Lester Jorgensen, P.E. Director
Special Transportation Projects
City of Madera
205 W. 4th St.
Madera, CA 93637

Re: Ellis Street Over Crossing-Environmental Assessment

Dear Mr. Jorgensen:

We have received and reviewed the Initial Study with proposed Mitigated Negative Declaration/Environmental Assessments; and we offer the following comments;

Page	Comments	
15	Permits and approvals-A permit would also be required from the Bureau of Reclamation along with MID. The land title fro the canal is in the name of the United States.	1
27 28	Environmental Consequences-Require Right-of-Way from the Madera Irrigation District Canal-Requires action from both MID and USBR.	2
29	Estimated Right-of-Way needed-#22-Canal-See above.	3
74	The canal on the east side is not within the project limits and no improvements will be made to the budge or the roadway crossing this canal. Nothing will be required from MID or USBR at the Ellis Street/Lat. 24.2 Bridge.	4

Please feel free to contact me if you need any additional information on this matter.

Sincerely,

Don Roberts
District Engineer

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Response to Madera Irrigation Comments Letter

City of Madera
Planning Department

June 11, 2008

Madera Irrigation District
Don Roberts, District Engineer
12152 Road 28 ¼
Madera, CA 93637-9199

SUBJECT: SCH# 2008032091 Ellis Overcrossing; Madera County, City of Madera

Dear Mr. Roberts:

The City of Madera Planning Department has received a comment letter in regards to the Initial Study with proposed Mitigated Negative Declaration/Environmental Assessment for the Ellis Street Overcrossing at SR 99, dated March 27, 2008. Staff has reviewed your agency's comments and concerns and has the following response:

- Page 15: The US Bureau of Reclamation District will be added to the list of Permits and Approvals Needed table. 1
- Page 27/28: Add to the narrative on page 28: A permit to occupy the parcel owned by the United States of America, under the jurisdiction of the Madera Irrigation District and the US Bureau of Reclamation, is in progress for the City of Madera's Linear Park Project and a portion of Avenue 16 and Kennedy Street in the Ellis Street Overcrossing Project. 2
- Page 29: The Estimated Right-of-Way needed for #22-Canal can be found in Table 2.1 on page 28. 3
- Page 74: Concur with comment/statement. 4

If you have any additional questions or comments regarding this project, please contact Les Jorgensen, Project Manager at (559) 661-5429, ljorgensen@cityofmadera.com, or Steven Greer, Senior Planner at (559) 661-5436, sgreer@cityofmadera.com.

Cordially,

Steven Greer
Senior Planner

205 W. 4th Street, CA 93637 – TEL (559) 661-5430 - FAX (559) 674-2972
www.cityofmadera.org

Comments from California Highway Patrol

State of California--Business, Transportation and Housing Agency ARNOLD SCHWARZENEGGER, Governor
DEPARTMENT OF CALIFORNIA HIGHWAY PATROL
Madera Area
3051 Airport Drive
Madera, CA 93637-8709
(559) 675-1025
(800) 735-2929 (TT/TDD)
(800) 735-2922 (Voice)

April 24, 2008:

File No.: 450.11396.12343

Clear 4-23-08 late e

State Clearing House
1400 Tenth Street, Room 121
Sacramento, CA 95814

RE: SCH ~~#2008031091~~ 2008032091

State Clearing House:

The staff at the Madera office of the California Highway Patrol (CHP) has reviewed the Environmental Impact Report (EIR) regarding the proposed Ellis Street Overcrossing Project, (SCH #2008031091). The CHP is the primary agency providing traffic law enforcement, traffic safety, and traffic management of the unincorporated areas, along State Route 99 within Madera County. After a thorough review of this document, we offer the following comments:

The proposed transportation project is located within the jurisdictional responsibility of the Madera Police Department. The CHP strongly believes this project is necessary to alleviate east/west traffic congestion currently on Gateway Drive, Cleveland Avenue and Avenue 16. Traffic patterns have shown a steady increase through Madera city limits in this area due to the increase in single family dwellings near the proposed project area. The EIR identified the need for the new project to manage future expected increases in both local and arterial traffic. The City of Madera currently has plans for developing the county fairgrounds and the surrounding area on Cleveland Avenue west of State Route 99. The City of Madera is also anticipating the addition of several commercial "big box" stores near the project area. Traffic from these commercial developments will feed from local roadways into the expected project area thereby increasing traffic volumes over current levels. Traffic volume is expected to increase 60 percent above current levels by the year 2025.

Two alternatives were evaluated within the EIR. A Build alternative addressed the consequences of the project going forward, and a No-Build alternative to address the consequences on non-action. Expected traffic volumes in the project area are expected to increase to a level of approximately 47,000 vehicles per day. A No-Build alternative would result in very long traffic delays, traffic flow failure and extreme congestion. Delays of over 35 seconds per vehicle are predicted, with the potential for traffic delays up to 50 seconds per vehicle being possible. This means traffic in the proposed project area would have the affected roadways either at or near full capacity and the flow of traffic at best would be unstable. The Build alternative is clearly the

best solution considering the potential negative impact to the Department's main mission of traffic management. Madera Area strongly supports the Build alternative to this project. Any departmental input in support of the Build alternative would be favorable.

Should there be questions regarding these comments, please contact me at (559) 675-1025.

Sincerely,

D. PARIS, Lieutenant
Commander
Madera Area

cc: Special Projects Section – CHP
Central Division – CHP

Response to California Highway Patrol Comments Letter

City of Madera
Planning Department

June 11, 2008

Department of California Highway Patrol
Lieutenant Dave Paris, Commander
3051 Airport Drive
Madera, CA 93637

SUBJECT: SCH# 2008032091 Ellis Overcrossing; Madera County, City of Madera

Commander Paris:

The City of Madera Planning Department has received a comment letter in regards to the Initial Study with proposed Mitigated Negative Declaration/Environmental Assessment for the Ellis Street Overcrossing at SR 99, dated April 1, 2008.

Staff has reviewed your agency's comments and appreciates your input on the environmental document prepared for the project. Your department has indicated support for the project and concurs with the traffic transportation analysis included within the Initial Study with proposed Mitigated Negative Declaration/Environmental Assessment, stating that the No-Build alternative would result in traffic delays and congestion during peak hours.

If you have any additional questions or comments regarding this project please contact Les Jorgensen, Project Manager at (559) 661-5429, ljorgensen@cityofmadera.com or Steven Greer, Senior Planner at (559) 661-5436, sgreer@cityofmadera.com.

Cordially,

Steven Greer
Senior Planner

205 W. 4th Street, CA 93637 – TEL (559) 661-5430 - FAX (559) 674-2972
www.cityofmadera.org

Ellis Street/Avenue 16 Overcrossing at SR 99
Open Forum Public Hearing
April 9, 2008
4:00 pm – 7:00 pm

Verbal Question from Attendees
&
Verbal Responses by Staff

Questions from Carlos & Rosemary Arreazola, 25183 Avenue 16, Madera, CA

Q: Will you please buy my entire property and house? I don't want to live here. 1
A: The current plan is to only purchase land from you property for the new street. You can make a demand for the City to purchase your house and property and it will be discussed during the acquisition process.

Q: Will the noise level increase? 2
A: It may, but it is not expected to reach a level above the minimum standard. The source of the noise will move from the front of your home to the rear.

Q: Will Avenue 16 remain open? 3
A: No, traffic will use the new street and we will provide you with an access driveway where Avenue 16 meets Kennedy Street.

Q: What is the timeline for construction? 4
A: If all goes as planned, construction bids will be requested in January 2009 and construction could begin in March 2009.

Question from Luanna Brock, 16419 Sharon Boulevard, Madera, CA

Q: Will Krohn Street be closed? 1
A: Not at this time with this project. It may be closed is the future to construct a retention basin.

Q: What is the timeline for construction? 2
A: If all goes as planned, construction bids will be requested in January 2009 and construction could begin in March 2009.

Questions from Benjamin James, 16449 Sharon Boulevard, Madera, CA

Q: Will the planned location of the overpass change in the future
A: No, since this is the location that Caltrans will use for a future interchange. 1

Q: How high will the overcrossing be?
A: The height will reach about 30'. The street will begin to elevate about 200' west of Krohn Street. 2

Q: What is the timeline for construction?
A: If all goes as planned, construction bids will be requested in January 2009 and construction could begin in March 2009. 3

Kerry Donaldson, 16404 Krohn Street, Madera, CA

Q: How high will the overcrossing be?
A: The height will reach about 30'. The street will begin to elevate about 200' west of Krohn Street. 1

Q: Will a fence be installed on my property line?
A: No fences will be installed with the project. Property owners can fence their property. 2

Q: Will the street on the old plan be constructed over my property?
A: No, the proposed street connection between Ellis and Sharon is currently being developed on a new alignment. 3

Q: What is the timeline for construction?
A: If all goes as planned, construction bids will be requested in January 2009 and construction could begin in March 2009. 4

George Kincade, 25135 Avenue 16, Madera, CA

Q: What new commercial construction is being built nearby?
A: No actual construction, but development is under consideration at Avenue 17 at Schnoor & Avenue 16. 1

Q: When is the street connection at Granada going to be constructed?
A: The construction in progress now is being done by private development. The developer has stopped work at this time. It could be finished later this summer and if not, it will certainly be constructed with our project. 2

Q: What is the timeline for construction?
A: If all goes as planned, construction bids will be requested in January 2009 and construction could begin in March 2009. 3

Roy Roberts, 16340 Golden State Boulevard, Madera, CA

Q: What is the zoning? Will it change for my land on Golden State Blvd.? 1
A: The zoning for your parcel is IP (Industrial Park). No zoning changes are proposed with this project.

Q: What is the timeline for construction? 2
A: If all goes as planned, construction bids will be requested in January 2009 and construction could begin in March 2009.

Ellis Over-Crossing Public Meeting
City Hall Conference Room
April 9, 2008

Sign-In Sheet

	NAME	PHONE
1.	[illegible] Brock	
2.	BENJAMIN JAMES	675-0614
3.	George E. Kinkade	
4	Carlos + Rosemary Arreazola	
5.	[illegible]	
6.	David Robert	
7.	Mary Ellen Romo	
8.	Mr & Mrs Alfred R Zaragoza	
9.	Edward McElroy	673-0852
10.	MICHAEL PISTORESI	673-7802
11.	KERRY DONABEDIAN	871-2482
12.	William Schultz	871-2640
13.	Gloria Schultz	662-8809
14.		
15.		
16.		
17.		
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20.		
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25.		

List of Technical Studies that are Bound Separately

Air Quality Reports

- Air Quality Impact Evaluation
- $PM_{2.5}$ Analysis Technical Document
- Mobile Source Air Toxics (MSAT) Memorandum

Biological Studies

- Natural Environment Study
- Supplemental Memorandum
- Wetlands Report

Community Characteristics and Environmental Justice Technical Document

- Farmlands
- Utilities/Emergency Services Technical Document

Environmental Noise Analysis

Hazardous Waste Reports

- Limited Phase I Environmental Site Assessment

Paleontology Study

- Paleontological Resource Impact Assessment

Water Quality Reports

- Stormwater Analysis
- Supplemental Memorandum

Summary Floodplain Encroachment Report

Traffic Study for the Ellis Street Over-Crossing

Visual and Scenic Resources

- Visual Impact Assessment
- Supplemental Memorandum

Historic Property Survey Report

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