Pelandale Avenue Interchange Reconstruction on State Route 99 at Pelandale Avenue in Stanislaus County

DISTRICT 10 – STA – 99 (PM 21.0/22.4)
EA # 472100

Initial Study with Proposed Mitigated Negative Declaration

Prepared by the
State of California Department of Transportation

June 2009

General Information about this Document

What's in this document:

The California Department of Transportation (Department) has prepared this Initial Study, which examines the potential environmental impacts of the alternatives being considered for the proposed project located in Stanislaus County, CA. The document describes why the project is being proposed, alternatives for the project, the existing environment that could be affected by the project, the potential impacts from each of the alternatives, and the proposed avoidance, minimization, and/or compensation measures.

What you should do:

Please read this Initial Study. Additional copies of this document as well as the technical studies are available for review at the State of California Department of Transportation, District 10, 1976 East Charter Way/East Dr. Martin Luther King Jr. Blvd., Stockton, CA 95205, City of Modesto, 1010 10th Street, Modesto, CA 95354, Stanislaus County Library-Modesto Branch, 1500 I Street, Modesto, CA 95354, and Stanislaus County Library-Salida Branch, 4835 Sisk Road, Salida, CA 95368.

- Attend public information meeting on

- We welcome your comments. If you have any comments regarding the proposed project, please attend the public information meeting and/or send your written comments to Caltrans by the deadline.

Submit comments via postal mail to the Caltrans at the following address:

- Gail Miller, Branch Chief
  Central Sierra Environmental Analysis Branch
  California Department of Transportation
  2015 E. Shields Avenue, Suite 100
  Fresno, CA 93726

- Submit comments via email to: gail_miller@dot.ca.gov

- Submit comments by the deadline:

What happens next:

After comments are received from the public and reviewing agencies, Caltrans, may: (1) give environmental approval to the proposed project, (2) undertake additional environmental studies, (3) abandon the project, or (4) decide to modify the alternatives under consideration based on comments received. If the project is given environmental approval and funding is appropriated, Caltrans could design and construct all or part of the project.

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please contact Caltrans District 10 Public Affairs Office at (209) 948-7977, or use the California Relay Service TTY number, (800) 735-2929.

10-STA-99-PM 21.0/22.4
10-472100

PELANDALE AVENUE INTERCHANGE RECONSTRUCTION
ON STATE ROUTE 99 AT PELANDALE AVENUE
IN AND NEAR THE CITY OF MODESTO

INITIAL STUDY
with Proposed Mitigated Negative Declaration

Pursuant to: California Environmental Quality Act (PRC 21000 et seq.) and Guidelines for Implementation of the California Environmental Quality Act (PRC 15000 et seq.)

THE STATE OF CALIFORNIA
Department of Transportation

6/30/2009
Date of Approval

Christine Cox-Kovacevich,
Office Chief, Central Region
Environmental North

Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans), proposes to improve the State Route 99/Pelandale Avenue Interchange located in the City of Modesto and County of Stanislaus.

Determination

Draft

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

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

The proposed project would have no effect on land use, scenic rivers, growth, housing, traffic and transportation/pedestrian and bicycle facilities, parks and recreation, as well as coastal, cultural, socio-economic, mineral, agriculture, hydrology/floodplain, or geological resources.

In addition, the project would have no significant effect on utilities/emergency services, hazardous waste, air quality, water quality, visual resources, biological, and hazardous waste.

The proposed project would have no significantly adverse effect on sensitive noise receptors and paleontological resources because of the following mitigation measures:

- Noise abatement is proposed along the east side of State Route 99 just south of Pelandale Avenue
- A Paleontological Mitigation Plan will be prepared

_____ _____

Christina Cox-Kovacevich
Office Chief, Central Region
Environmental North

Date

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Chapter 1 – Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) proposes to improve the State Route 99/Pelandale Avenue Interchange located in the City of Modesto and County of Stanislaus (See Figure 1-1, Project Location; Figure 1-2, Project Vicinity, and Figure 1-3, Aerial Photo).

State Route 99 is a principal north/south highway that serves both local commuters and interregional traffic. State Route 99 is designated as a six-lane divided freeway. The existing facility is a diamond interchange that was completed in the 1960's. Pelandale Avenue is a local road on an east-west alignment that spans State Route 99 on the Pelandale overcrossing. Between Salida Boulevard and Sisk Road (or the portion of Pelandale Avenue that spans State Route 99), Pelandale Avenue has three lanes (two westbound and one eastbound) and widens out at the intersections to provide additional room for vehicles. East of Sisk Road, Pelandale Avenue is a six-lane expressway. The existing Pelandale Avenue overcrossing is 215.9 feet in length and 46.9 feet in width. Current land uses surrounding the existing interchange include a vacant lot, residential, commercial, light industrial, and agricultural activity.

The proposed project will be funded through a combination of local capital facilities fees, state, and federal funds. Right-of-way and construction phases are proposed to be funded from a combination of the City of Modesto's capital facilities fees program and future cycles of the State Transportation Improvement Program.

The proposed project is included in the 2007 Federal Statewide Transportation Improvement Program for the Stanislaus Council of Governments and is also included the financially-constrained adopted Stanislaus Council of Governments 2007 Regional Transportation Plan. The total estimated cost to implement the Build Alternative is $50,121,000, which includes $41,949,000 estimated for construction and $8,172,000 for right-of-way and utility relocation.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the proposed project is to reconstruct the State Route 99/Pelandale Avenue interchange to:

- Increase its capacity and improve traffic operations
- Improve local circulation in the immediate area
- Enhance traffic safety

1.2.2 Need

The current interchange does not have adequate capacity during peak times and is in need of improvements to ensure it meets current and future traffic demands.

Based on the City of Modesto 2008 Urban Area General Plan, the City's policy is to maintain a Level of Service D or better at intersections. Caltrans' policy is to maintain Level of Service D or better on State Route 99. The Stanislaus County 2007 Regional Transportation Plan states that County roadways and intersections within urban areas, such as Community Plan areas, maintain a Level of Service D or better as an implementation measure towards promoting safety and minimizing traffic congestion. (See Figure 1-4 Levels of Service)

State Route 99/Ramps - Existing Capacity and Level of Service

Table 1.4 shows portions of the State Route 99/Pelandale Avenue interchange currently operate at poor levels of service. Vehicle density at one ramp junction during morning and afternoon peak hours exceeds the Caltrans' standards.

The State Route 99 southbound off-ramp at Pelandale Avenue operates at level of service E during the morning peak hours of operation. Conditions at the same ramp during the evening commute deteriorate to level of service F. During the evening commute, vehicles line up from the existing southbound off-ramp/Pelandale Avenue signal and extend the entire length of the ramp beyond the freeway gore point and impact operations at the ramp's connection to State Route 99.

The intersection of the southbound on- and off-ramps with Pelandale Avenue currently operates at level of service F during afternoon peak periods. Overall ratings at the rest of the interchange intersections and several adjacent intersections are level of service D or better but the overall intersection delay results are heavily based on the major east/west through movements along Pelandale Avenue, which are coordinated to operate at level of

service C or better. Many of the side street movements on these same intersections however operate at level of service E or worse, slowing traffic and causing potential safety problems.

Intersection Existing and Future Capacity and Level of Service

Future traffic demand volumes at the interchange were forecast in the Final Traffic Operations Report for the proposed project. Table 1.1 Existing and Future Average Daily Traffic Volumes on Project Area Roadways, and Table 1.2 Mainline and Ramp Traffic Volumes are included below. Results of the Final Traffic Operations Report predict increased traffic demand volumes at the State Route 99/Pelandale Avenue Interchange, based on the Stanislaus Council of Governments and the City of Modesto's projected land uses.

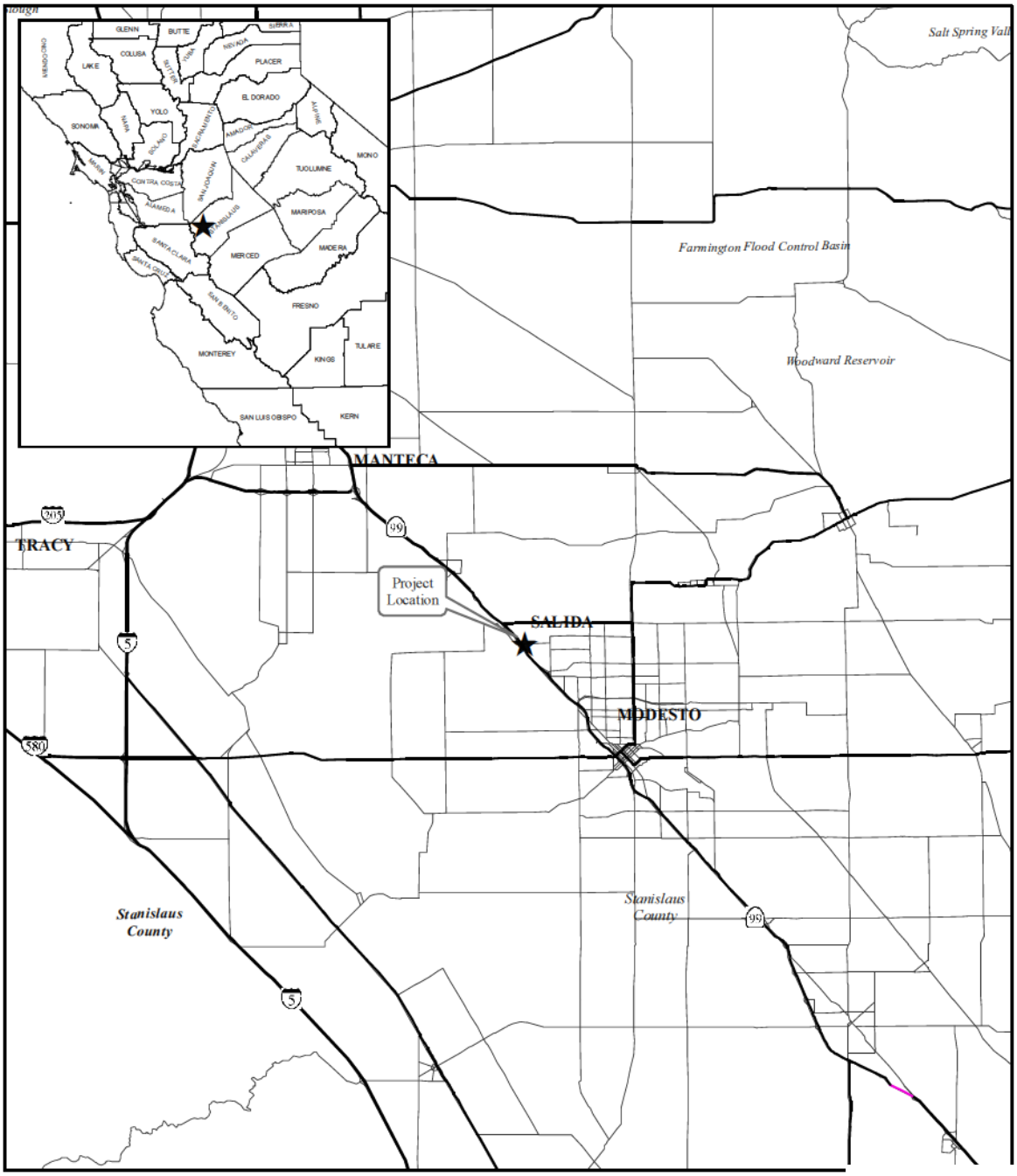
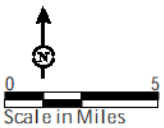


Figure 1-1



State Route 99/Pelandale Avenue Interchange Reconstruction Project
10-STA-99 PM21.0/22.4
EA#10-472100

Project Location

SOURCE: U.S. CENSUS BUREAU TIGER 2K (2002)
I:\Dec0604\gis\fig1-location map.mxd (6/25/08)

Figure 1-1 Project Location

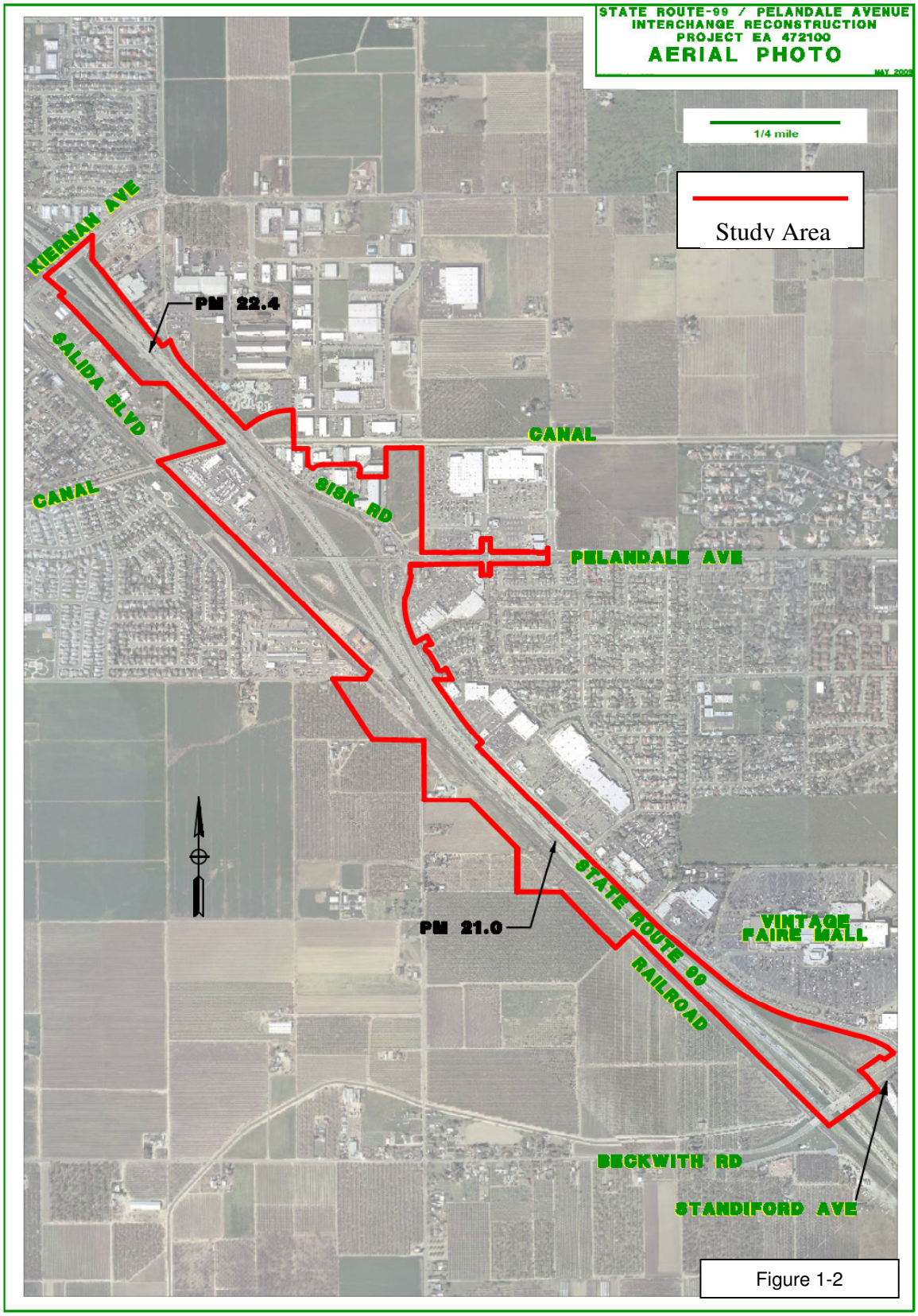


Figure 1-2 Project Vicinity

LEVELS OF SERVICE
for Freeways

Level of Service	Flow Conditions	Operating Speed (mph)	Technical Descriptions
A		70	Highest quality of service. Traffic flows freely with little or no restrictions on speed or maneuverability. **No delays**
B		70	Traffic is stable and flows freely. The ability to maneuver in traffic is only slightly restricted. **No delays**
C		67	Few restrictions on speed. Freedom to maneuver is restricted. Drivers must be more careful making lane changes. **Minimal delays**
D		62	Speeds decline slightly and density increases. Freedom to maneuver is noticeably limited. **Minimal delays**
E		53	Vehicles are closely spaced, with little room to maneuver. Driver comfort is poor. **Significant delays**
F		<53	Very congested traffic with traffic jams, especially in areas where vehicles have to merge. **Considerable delays**

Figure 1-3 Levels of Service for Freeways

Table 1.1 Existing and Future Average Daily Traffic Volumes on Project Area Roadways

Road	Existing Average Daily Traffic	2015 Average Daily Traffic	2035 Average Daily Traffic
Local Streets			
Pelandale Avenue between Sisk Road and Salida Boulevard	21,700	26,600	36,800
Pelandale Avenue East of Sisk Road	37,000	43,500	58,300
Sisk Road North of Pelandale Avenue	13,700	13,000	13,900
Sisk Road South of Pelandale Avenue	16,500	14,600	15,900
Salida Blvd North of Pelandale Avenue	8,900	10,900	15,200
Salida Blvd South of Pelandale Avenue	6,900	8,900	16,900
Mainline			
Northbound State Route 99 south of Standiford Avenue	64,000	70,100	78,100
Northbound State Route 99 Standiford Avenue to Pelandale Avenue	63,000	68,400	76,000
Northbound State Route 99 Pelandale Avenue to Kiernan Avenue	63,000	67,900	76,700
Northbound State Route 99 north of Kiernan Avenue	64,000	72,600	88,600
Southbound State Route 99 north of Kiernan Avenue	63,000	71,500	86,500
Southbound State Route 99 Kiernan Avenue to Pelandale Avenue	63,000	69,600	79,200
Southbound State Route 99 Pelandale Avenue to Standiford Avenue	63,000	69,400	76,500
Southbound State Route 99 south of Standiford Avenue	64,000	71,600	78,300
Ramp Junction			
Northbound State Route 99 Pelandale Off- Ramp	8,300	9,400	12,000
Northbound State Route 99 Pelandale On- Ramp	7,600	8,900	12,700
Southbound State Route 99 Pelandale Off- Ramp	7,600	10,600	15,200
Southbound State Route 99 Pelandale On- Ramp	8,300	10,400	12,500

Source: Final Traffic Operations Report

Table 1.2 Mainline and Ramp Traffic Volumes

MAINLINE OR RAMP	PEAK HOUR	EXISTING	2015	2035
Mainline				
Northbound State Route 99 south of Standiford Avenue	Morning	4,802	6,700	8,100
	Afternoon	4,603	5,010	5,350
Northbound State Route 99 Standiford Avenue to Pelandale Avenue	Morning	4,730	6,570	8,430
	Afternoon	4,367	4,600	4,840
Northbound State Route 99 Pelandale Avenue to Kiernan Avenue	Morning	4,571	6,290	8,320
	Afternoon	4,353	4,570	4,760
Northbound State Route 99 north of Kiernan Avenue	Morning	4,521	7,040	9,190
	Afternoon	4,381	4,850	5,460
Southbound State Route 99 north of Kiernan Avenue	Morning	4,293	5,830	7,500
	Afternoon	5,038	6,520	8,020
Southbound State Route 99 Kiernan Avenue to Pelandale Avenue	Morning	4,377	5,650	7,000
	Afternoon	4,975	5,950	7,170
Southbound State Route 99 Pelandale Avenue to Standiford Avenue	Morning	4,485	5,670	6,850
	Afternoon	4,918	5,830	7,420
Southbound State Route 99 south of Standiford Avenue	Morning	4,625	5,860	7,200
	Afternoon	4,822	5,780	7,100
Ramp Junction				
Northbound State Route 99 Pelandale Off- Ramp	Morning	724	1,080	1,300
	Afternoon	794	850	1,000
Northbound State Route 99 Pelandale On- Ramp	Morning	565	800	1,190
	Afternoon	780	820	920
Southbound State Route 99 Pelandale Off- Ramp	Morning	411	510	710
	Afternoon	873	1,140	1,470
Southbound State Route 99 Pelandale On- Ramp	Morning	519	530	560
	Afternoon	816	1,020	1,720

Source: Final Traffic Operations Report

The traffic forecast (Table 1.2) indicates average daily traffic is expected to increase at the State Route 99/Pelandale Avenue interchange and vicinity. This increased traffic would add further congestion to the interchange.

The Final Traffic Operations Report for the proposed project analyzed traffic operations at intersections, mainline, and ramps for the opening year (2015) and design year (2035) Table 1.3 shows that under the No-Build Alternative, four of the five study intersections would operate at unacceptable levels of service during the morning and/or afternoon peak hour in 2015. Also shown in Table 1.3, under the No-Build Alternative all of the study intersections would operate at level of service F during the morning and afternoon peak hours by 2035.

Table 1.3 Existing and Future Levels of Service: No-Build Conditions

Intersection	Peak Hour	Existing	2015	2035
Pelandale Avenue and Salida Boulevard	Morning	C	C	F
	Afternoon	C	F	F
Salida Boulevard and State Route 99 Southbound Ramps	Morning	C	C	F
	Afternoon	F	F	F
Sisk Road and State Route 99 Northbound Ramps	Morning	C	F	F
	Afternoon	C	F	F
Pelandale Avenue and Sisk Road	Morning	C	E	F
	Afternoon	E	F	F

Source: Final Traffic Operations Report (Fehr & Peers, May 2009), Existing-Table 6, 2015-Table 16, 2035-Table 19

State Route 99 and Ramps

Each mainline segment and ramp connection on State Route 99 was analyzed based on opening year and future (2015 and 2035) volumes. As shown in Table1.4, currently State Route 99 segments operate at level of service D or better. State Route 99 between Kiernan and Standiford Avenues is anticipated to experience increased level of service F under the No-Build conditions due congestion on the Pelandale off-ramps.

As shown in Table 1.4, under No-Build conditions, all freeway segments would operate at unacceptable levels of service (E or worse) in 2015, and six segments would operate at those unacceptable levels in 2035. Also, three off-ramps would operate at level of service E or worse under No-Build conditions in 2015 and 2035.

As shown in Tables 1.1 through 1.4, traffic is expected to increase in the future and congestion would worsen without the proposed project.

Table 1.4 Mainline and Ramp Merge, Diverge Analysis
Existing and No-Build Conditions

			NO-BUILD	
Mainline or Ramp	**Peak Hour**	**Existing**	**2015**	**2035**
Mainline/ Weave Analysis				
Northbound State Route 99 south of Standiford Avenue	Morning	D	F	E
	Afternoon	D	D	C
Northbound State Route 99 Standiford Avenue to Pelandale Avenue	Morning	D	F	F
	Afternoon	C	D [F]	C[F]
Northbound State Route 99 Pelandale Avenue to Kiernan Avenue	Morning	D	F	E
	Afternoon	C	D	C
Northbound State Route 99 north of Kiernan Avenue	Morning	D	F	F
	Afternoon	C	D	C
Southbound State Route 99 north of Kiernan Avenue	Morning	D	E	E
	Afternoon	D	E [F]	E
Southbound State Route 99 Kiernan Avenue to Pelandale Avenue	Morning	D	E	D[F]
	Afternoon	D	E [F]	D[F]
Southbound State Route 99 Pelandale Avenue to Standiford Avenue	Morning	D	E	D
	Afternoon	D	E	D
Southbound State Route 99 south of Standiford Avenue	Morning	D	E	D
	Afternoon	D	E	D
Ramp Junction Analysis				
Northbound State Route 99 Pelandale Off-Ramp	Morning	D	F	F
	Afternoon	D	D [F]	D[F]
Northbound State Route 99 Pelandale On-Ramp	Morning	D	F	F
	Afternoon	C	D	D
Southbound State Route 99 Pelandale Off-Ramp	Morning	E	F	E[F]
	Afternoon	E[F]	F	E[F]
Southbound State Route 99 Pelandale On-Ramp	Morning	C	D	D
	Afternoon	D	D	C

Notes:
1) Functional level of service is presented in brackets ([ ]).These ramps/mainline sections are heavily influenced by the off-ramp vehicle queues at the Pelandale Avenue ramp terminal intersections. The functional level of service is a better estimate of the true traffic operations on the mainline when the effects of ramp terminal intersection operations are taken into consideration.

Source: Final Traffic Operations Report

Existing Accident History

Accident data for State Route 99 through the study corridor is shown in Table 1.5, which shows a total of 143 accidents with 120 reported on the mainline during the two-year period. A total of 23 accidents were reported at the ramps. Two fatalities occurred on the mainline, while no fatalities occurred at the ramps during the study period. Table 1.5 shows that southbound State Route 99 from Kiernan Avenue to Standiford Avenue has a higher

fatality accident rate than the statewide average for similar facilities. Furthermore, the northbound and southbound off-ramps to Pelandale Avenue have higher overall accident rates than the statewide average for similar facilities. The State Route 99 southbound off-ramp at Pelandale Avenue operates at level of service E during the morning peak hours of operation. Conditions at the same ramp during the evening commute deteriorate to level of service F. During the evening commute, vehicles line up from the existing southbound off-ramp/Pelandale Avenue signal and extend the entire length of the ramp beyond the freeway gore point and impact operations at the ramp's connection to State Route 99. This has led to increased rear end accidents on the off-ramp and emergency avoidance maneuvers for traffic on State Route 99.

Table 1.5 Accident History for State Route 99

MAIN LINE FACILITY	NUMBER OF ACCIDENTS			ACCIDENT RATE (ACCIDENTS/MILLION VEHICLE MILES)					
				Actual			State Average		
	Total	Fatal	Fatal + Injury	Fatality	Fatal + Injury	Total	Fatality	Fatal + Injury	Total
Northbound State Route 99 from Standiford to Kiernan	58	0	13	0.000	0.15	0.66	0.010	0.32	0.96
Southbound State Route 99 from Kiernan to Standiford	62	2	21	0.023	0.24	0.71	0.010	0.32	0.96
Northbound Off-Ramp to Pelandale	11	0	2	0.000	0.35	1.92	0.005	0.61	1.50
Southbound On-Ramp from Pelandale	2	0	1	0.000	0.18	0.37	0.002	0.32	0.80
Northbound On-Ramp from Pelandale	2	0	0	0.000	0.23	0.46	0.002	0.32	0.80
Southbound Off-Ramp to Pelandale	8	0	4	0.000	0.88	1.75	0.005	0.61	1.50

1.3 Alternatives

This section describes the proposed action and the design alternatives that were developed by a mulit-disciplinary team to achieve the project purpose and need while avoiding or minimizing environmental impacts. Two alternatives are being considered for this proposed project—the Build Alternative (see Figure 1-5) and the No-Build Alternative. This section describes the alternatives under consideration, explains why other alternatives were dropped from further consideration, and provides a comparison of the alternatives.

The proposed project is located at the State Route 99/Pelandale Avenue Interchange in the incorporated limits of the City of Modesto. Within the project limits, Pelandale is three lanes wide and State Route 99 is a six-lane dedicated freeway. The existing facility is a diamond interchange. The proposed project would reconstruct the State Route 99/Pelandale Avenue interchange to alleviate congestion and improve operations.

1.3.1 Build Alternative

The Build Alternative would reconstruct and realign the State Route 99/Pelandale Avenue interchange as follows:

- Widen the Pelandale Avenue overcrossing from three to six lanes, and realign it with Salida Boulevard to the southwest of the overcrossing's current location.
- Modify the intersections at Pelandale Avenue and Sisk Road, Pelandale Avenue and Salida Boulevard, and the northbound State Route 99 ramps at Sisk Road, and the southbound State Route 99 ramps at Salida Boulevard to increase operational efficiency.
- Build new on- and off-ramps for State Route 99 at Pelandale Avenue.
- Construct north and southbound auxiliary lanes to the north between the new State Route 99/Pelandale Avenue interchange and the existing State Route 99/State Route 219 (Kiernan Avenue Interchange).
- Construct 1,500 feet of new northbound and southbound auxiliary lanes between the new State Route 99/Pelandale Avenue interchange and the existing State Route 99/Standiford Avenue Interchange.
- Realign Sisk Road further west and widen it to facilitate intersection modification.
- Install ramp metering on the new northbound and southbound on-ramps, including ramp metering signal, and proper signing and striping.
- Construct a sidewalk on the south side of the new Pelandale Avenue Overcrossing.

- Place traffic signals at the intersections of Pelandale Avenue at Sisk Road, Pelandale Avenue at Salida Boulevard, northbound State Route 99 ramps at Sisk Road, and southbound State Route 99.

Figure 1-4 shows the build alternative on an aerial photo.

Transportation System Management and Transportation Demand Management Alternatives

Transportation Systems Management strategies increase the efficiency of existing facilities and increase the number of vehicle trips a facility can carry without increasing the number of through-lanes. Although Transportation System Management measures alone could not satisfy the purpose and need of the proposed project, the following Transportation System Management measures have been incorporated into the Build Alternative for this proposed project:

- Install ramp meters and a ramp metering signal on the new northbound and southbound on-ramps, to be turned on at a later date (not at project opening).
- Add auxiliary lanes on north and southbound State Route 99
- Incorporate pedestrian features, including sidewalks with grades and curb ramps at intersections that satisfy Americans with Disabilities Act requirements, in the proposed project. These features would be along at least one side of all local streets throughout the project limits. This would include a sidewalk on the south side of the Pelandale Avenue overcrossing and along the north side of Salida Boulevard.
- Place traffic signals at the intersections of Pelandale Avenue at Sisk Road, Pelandale Avenue at Salida Boulevard, northbound State Route 99 ramps at Sisk Road, and southbound State Route 99.

1.3.2 No-Build (No Action) Alternative

Environmental review must consider the effects of not implementing the proposed project. The No-Build Alternative provides a baseline for comparing the impacts of all alternatives. The No-Build Alternative would entail keeping the State Route 99/Pelandale Avenue Intersection in its existing state. The No-Build Alternative would result in deteriorating level of service, impacts to air quality, and no improvement in traffic safety. Unless operational improvements are made, future planned development and general regional growth will likely increase traffic congestion.

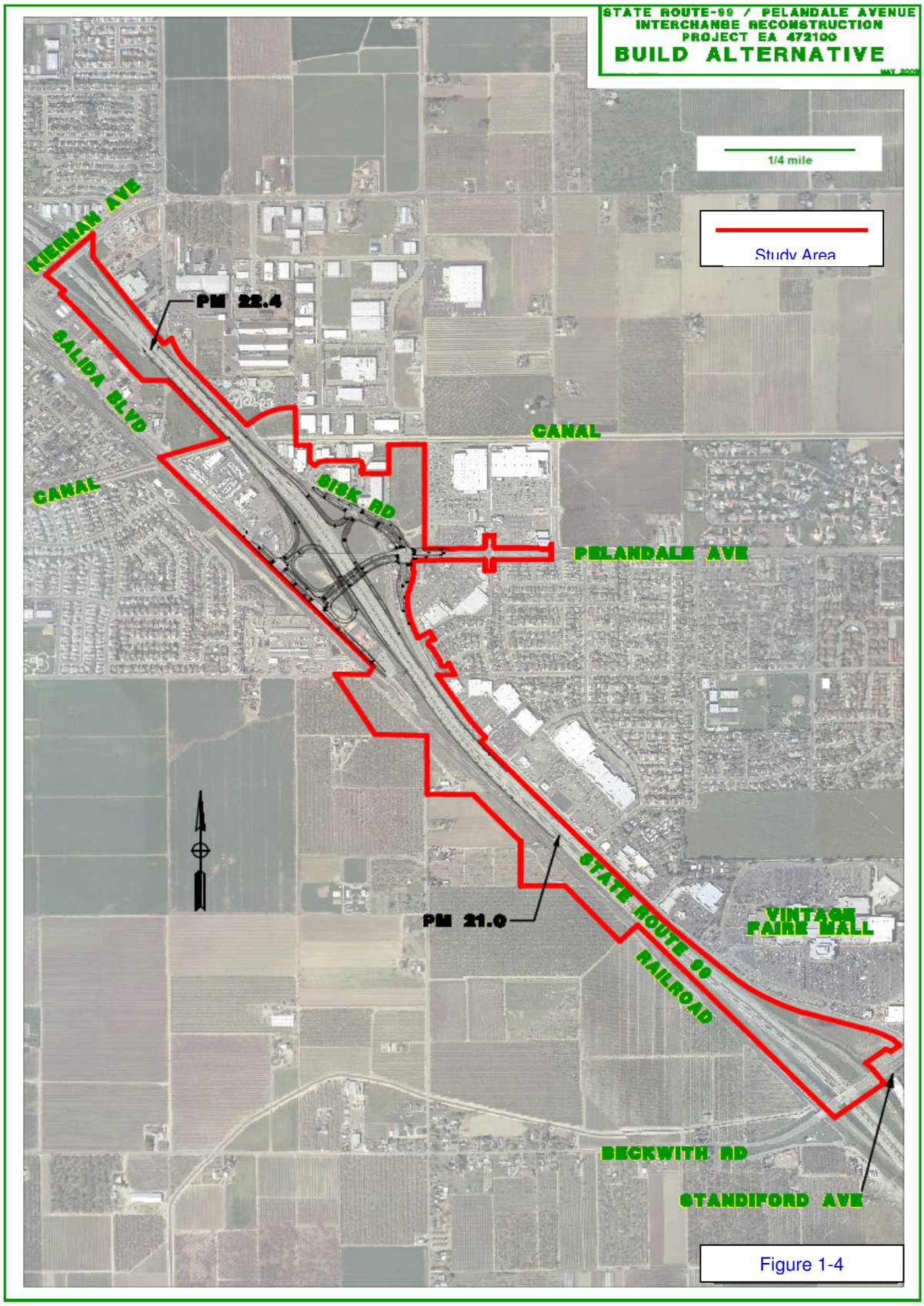


Figure 1-4 Build Alternative

1.3.3 Comparison of Alternatives

The Build Alternative would reconstruct the existing State Route 99/Pelandale Avenue Interchange as described in Section 1.3.1.

The No-Build Alternative would keep the intersection in its existing state. The No-Build Alternative would result in deteriorating level of service, impacts to air quality, and no improvement in traffic safety. Unless operational improvements are made, future planned development and general regional growth will likely increase traffic congestion.

1.3.4 Alternatives Considered but Eliminated from Further Discussion

Since the Project Study Report was initiated, two sets of alternatives have been developed and evaluated.

The first set of alternatives was developed for the Project Study Report (Project Development Support) that was approved in December 2000. In the approved Project Study Report, five alternatives were proposed and were comprised of four "build" alternatives and a "no build" or "no project" alternative.

- Project Study Report Alternative 1 – Reconstruct State Route 99/Pelandale Avenue Interchange to a Type L-9 (partial cloverleaf) interchange.
- Project Study Report Alternative 2 – Reconstruct State Route 99/Pelandale Avenue Interchange to a Type L-9 (partial cloverleaf) interchange with a roundabout at the intersection of Pelandale Avenue and Sisk Road.
- Project Study Report Alternative 3 – Reconstruct State Route 99/Pelandale Avenue Interchange to a Type L-13 (Single Point) interchange.
- Project Study Report Alternative 4 – Reconstruct State Route 99/Pelandale Avenue Interchange to a Type L-13 (Single Point) interchange with a roundabout at the intersection of Pelandale Avenue and Sisk Road.

The alternatives studied in the approved Project Study Report included ramps terminating at Pelandale Avenue. These configurations did not meet traffic forecasting demands due to insufficient intersection spacing and inadequate room for waiting vehicles on both Pelandale Avenue and State Route 99 off-ramps. The proposed alternatives were found not to meet the purpose and need objectives of the proposed project as identified in 2000.

In 2007, the City of Modesto and Caltrans reached agreement that the City would lead the current Project Approval/Environmental Document phase under Caltrans' oversight and in

2008 the City and Caltrans executed a project charter that included agreement that none of the previously studied alternatives would be re-evaluated.

A second set of alternatives was developed in the current Project Approval/Environmental Document process, 2007 to the present. Four formal alternatives were developed. Alternative 1 remains a viable alternative and is discussed in Section 1.3.1 . Alternatives 2, 3 and 4 were considered and rejected and are discussed below:

- Alternative 2 – Alternative 2 was an interchange with continuous flow intersections along Sisk Road and Salida Boulevard, south of the State Route 99 ramps (see Appendix E). The continuous flow intersection at Sisk Road would carry southbound traffic intending to turning left onto Pelandale Avenue. The continuous flow intersection at Salida Boulevard would carry southbound traffic intending to turn left onto the Pelandale Avenue overcrossing. Continuous flow intersections are an unfamiliar configuration for drivers in the region. As a result, the project development team recommended rejecting this alternative due to potential problems with traffic safety resulting from the non-typical intersection type.
- Alternative 3 – Alternative 3 was similar to Alternative 2 except the hook ramps at the ends of the northbound and southbound ramps are controlled by roundabouts at each intersection instead of traffic signals. In addition to being a locally unfamiliar configuration, Alternative 3 did not meet the purpose and need due to the roundabout at Sisk Road and northbound State Route 99 ramps. The short distance between the two intersections would result in constant traffic back-ups from one intersection to the next, causing unacceptable service levels.
- Alternative 4 – Alternative 4 was similar to Alternative 1 except the intersection of Salida Boulevard and southbound State Route 99 ramps would be controlled by a roundabout instead of traffic signals. The roundabout is a non-standard configuration not typically experienced by drivers in the region. As a result, the project development team recommended rejecting this alternative due to potential driver unfamiliarity and potential problems with traffic safety resulting from the non-typical intersection type.

1.4 Permits and Approvals Needed

The following Table 1.6 shows permits, reviews, and approvals that would be required for project construction:

Table 1.6 Permits and Approvals Needed

Agency	Permit/Approval	Status
State Water Resources Control Board	National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 99-08-DWQ).	Would be obtained prior to project construction.

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

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

As part of the scoping and environmental analysis conducted for the proposed 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:

- Growth—The improvements proposed for the existing interchange at Pelandale consist of only operational improvements to correct existing and projected deficiencies in the level of service for current and future traffic volumes. The proposed project does not change accessibility to any areas. The proposed project also does not influence potential growth, since the interchange is already in a developed area. Increase in usage of the interchange is foreseeable due to improved efficiency, but local development is well established within and adjacent to the project location.
- Farmlands — Although Prime Farmland falls within the project study area, no additional right-of-way is proposed in these areas. As a result, the proposed project would not impact farmlands.
- Community Impacts — The interchange is an existing feature. Because no residential relocations would occur, implementation of the Build Alternative would not divide or directly affect any identified neighborhood or community based on the Community Impact Assessment Checklist completed in 2009.
- Hydrology and Floodplain — According to the Federal Emergency Management Agency maps, the proposed project is not within the 100-year floodplain. Since the proposed project is not within, or near enough to affect a floodplain, no floodplain encroachment impacts or increases to base flood elevations would occur.

- Geology/Soils/Seismic/Topography — There are no known active geologic faults within the valley portion of Stanislaus County. The nearest faults within 50-mile range include the Ortigalita fault and Greenville fault to the west in the Coastal Range, and the Bear Mountains and Melones faults to the east based on the Preliminary Foundation Report completed in 2008.
- Cultural Resources — No historic properties or archeaological resources were identified within or immediately adjacent to the project area of potential effect. The proposed project would not have an adverse effect on any cultural resources. An Historic Property Survey Report regarding cultural resources was completed in 2009. No cultural resources were identified.
- Natural Communities — The Natural Environmental Study Minimal Impact report, completed in 2008, determined that no natural communities of concern would be affected as a result of the proposed project.
- Wetlands and Other Waters — As documented in the Natural Environmental Study Minimal Impact report, the proposed project will avoid all state and federal jurisdictional waters during construction of the roadway improvements.
- Plant Species — As documented in the Natural Environmental Study Minimal Impact report, no special-status plants or habit for special-status plant species were identified within the project area.
- Threatened and or Endangered Species —The Natural Environmental Study Minimal Impact report determined that there are no threatened or endangered plants and animals within the Biological Study Area.
- Cumulative Impact — The proposed project is not expected to have a substantial adverse cumulative impact due to the fact that the proposed project is a reconstruction of an already existing interchange. The majority of construction would take place on existing right-of-way.

2.1 Human Environment

2.1.1 Land Use

2.1.1.1 Existing and Future Land Use

Affected Environment

A mix of industrial, commercial, residential, and agricultural land uses surrounds the project area. Lands adjacent to the proposed project site within the Modesto city limits are zoned for highway commercial, planned development, specific plan (holding and various

uses), and low-density residential. Unincorporated lands adjacent to the proposed project site are in the Salida Community Plan District. Those unincorporated areas are not zoned, but are considered "industrial transition" areas in the Salida Community Plan. A more detailed description of the types of businesses surrounding the interchange is included in Section 2.1.2 Relocations.

The proposed project is within a large regional commercial center extending from Pelandale Avenue to Standiford Avenue. The proposed project vicinity is currently at the urban fringe of Modesto. Development of areas to the north and east up to the San Joaquin River is planned in the City of Modesto Urban General Plan and the Stanislaus County General Plan.

Upcoming development projects within two miles of the interchange are shown in Table 2.1.

Table 2.1 Projects in Vicinity

Name	Project Identification No.	Project Location	Jurisdiction	Proposed Uses	Status
N/A	P-D 537	Northeast corner of Pelandale Avenue and Chapman Road	City of Modesto	105,000 square feet of mixed commercial	Complete Construction in 2016
N/A	P-D 540	Northeast corner of Pelandale Avenue and Chapman Road	City of Modesto	110,000 square feet of mixed commercial	Complete Construction in 2016
Kaiser	N/A	West of Dale Road South of Kiernan Avenue	City of Modesto	200,000 square feet of medical offices	Complete Construction in 2019
Malik Business Park	N/A	West of Dale Road South of Kiernan Avenue	City of Modesto	300,000 square feet of business park commercial/office	Complete Construction in 2016
Malik Medical Office	N/A	West of Dale Road South of Kiernan Avenue	City of Modesto	100,000 square feet of medical offices	Complete Construction in 2016
Kiernan Business Park East	N/A	East of Dale Road, North of Bangs Avenue	City of Modesto	1,498,224 square feet of business park commercial/office	Complete Construction in 2016
Kiernan Business Park East	N/A	East of Dale Road, North of Bangs Avenue	City of Modesto	80 units of high density single family residential	Complete Construction in 2016
Kiernan Business Park East	N/A	East of Dale Road, North of Bangs Avenue	City of Modesto	262 units of medium density single family residential	Complete Construction in 2016
Kiernan Business Park East	N/A	East of Dale Road, North of Bangs Avenue	City of Modesto	Hotel with 175 rooms	Complete Construction in 2016
Kiernan Business Park East	N/A	East of Dale Road, North of Bangs Avenue	City of Modesto	371,000 square feet of mixed commercial retail	Complete Construction in 2016
Kiernan Business Park East	N/A	East of Dale Road, North of Bangs Avenue	City of Modesto	79,000 square feet of commercial office	Complete Construction in 2016
Vintage Fair Mall	N/A	Northwest of the intersection of Dale Road and Standiford Avenue	City of Modesto	Expansion of existing 50k sf to 60k sf commercial retail	Complete Construction in 2016
Promenade Mall	N/A	Northwest of the intersection of Dale Road and Veneman Avenue	City of Modesto	400,000 square feet of commercial retail/restaurant	Project Abandoned
N/A	N/A	Northeast corner of Pelandale Avenue and Sisk Road	County of Stanislaus	107,000 square feet of commercial retail/restaurant on 8.7 acres	Pre-construction Planning
Salida High School	N/A	Next to the corner of Stoddard Road and Kiernan Avenue	County of Stanislaus	High School	Under Construction

Environmental Consequences

The Build Alternative would require changing the land use of five neighboring parcels from commercial uses to transportation right-of-way. Up to 10 on-street parking spaces would be impacted. Eight of these on-street spaces aer on Sisk Road and would likely be eliminated. These acquisitions are further discussed in Section 2.1.2, Relocations. Although land use will change for a number of parcels, the proposed project would not drastically change land uses in the area since it is the reconfiguration of an existing interchange. The overall commercial land uses in the project vicinity will remain the same.

Temporary/Construction Impacts

Construction would require temporary construction easements on eight parcels as shown on Figure 2-1. The construction easements are located in areas that are currently undeveloped or are used for parking. No driveways will be closed. Up to six driveways would be impacted by temporary traffic control. Two parking lots will temporarily lose seven to eight spaces, requiring minimal re-striping. As a result, the amount of parking would be temporarily reduced for those affected properties, but since the impact is short-term and access will be made available again when construction is over, no substantial impacts are expected.

Avoidance, Minimization and/or Mitigation Measures

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

2.1.1.2 Consistency with State, Regional, and Local Plans and Programs

Stanislaus Regional Transportation Plan

The proposed project is consistent with relevant transportation planning documents with jurisdiction over the plan area. The improvement of the State Route 99/Pelandale Avenue interchange is listed as a Tier I project in the 2007 Stanislaus Council of Governments Regional Transportation Plan. The reconstruction of the interchange has also been identified in the 2001 Regional Transportation Improvement Program and 2009 Interim Federal Transportation Improvement Plan.

Stanislaus County General Plan

The proposed project is consistent with the County of Stanislaus General Plan. The improvements planned for the State Route 99/Pelandale interchange meet the goals of the Circulation Element which includes providing a system of roads throughout the county that reflect land use needs, and supporting a broad range of transportation modes. The Stanislaus County General Plan describes the purpose of the project area (in its jurisdiction) as an employment-generating industrial/business park area:

- As part of an interjurisdictional effort, the County of Stanislaus and the City of Modesto developed the North Gateway Business Complex Master Development Plan in 2003. The goal of the plan is to help alleviate the existing jobs-housing imbalance in the County by promoting development of employment-generating industrial/business park uses in the area roughly bound by Ladd Road on the north, Dale Road on the east, Pelandale Expressway on the south, and Sisk Road on the west (2008).

The proposed project would improve traffic operations and provide better movement of vehicles through this portion of Highway 99, which would provide a positive benefit to county circulation inside and outside of the city limits of Modesto. By providing better levels of service, the proposed project would provide a more efficient circulation system which is consistent with the goals of the Stanislaus County General Plan.

City of Modesto General Plan

The proposed project is consistent with the City of Modesto Urban Area General Plan (City of Modesto, 2008). The Circulation and Transportation Diagram in the City's General Plan shows State Route 99 as a Freeway, Pelandale Avenue as a 6 lane Principal Arterial, and Sisk Road as a 4 lane minor arterial, and Salida Boulevard as a 4 lane minor arterial. The Circulation and Transportation Diagram also shows the project location as an interchange location.

Environmental Consequences

There are no impact with the Build Alternative. The proposed project is consistent with State, regional, and local planning for the project area. The No-build Alternative would not be consistent with the following plans:

- Stanislaus Regional Transportation Plan
- Stanislaus County General Plan
- City of Modesto General Plan

Avoidance, Minimization and/or Mitigation Measures

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

2.1.2 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 (CFR) 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. Please 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 U.S.C. 2000d, et seq.). Please see Appendix B for a copy of Caltrans' Title VI Policy Statement.

Affected Environment

The northeast quadrant of the existing interchange is adjacent to unincorporated Stanislaus County land designated as planned industrial in the 2007 Salida Community General Plan. Current land uses adjacent to the northeast quadrant consist of a retail store, a service station/mini mart, and a restaurant.

The northwest quadrant of the existing interchange is adjacent to an unincorporated Stanislaus County area currently designated as commercial in the 2007 Salida Community General Plan. Land uses adjacent to the northwest quadrant include a gas station, two fast-food restaurants, a restaurant and a hotel.

The southeast quadrant of the existing interchange is adjacent to lands designated as commercial and residential by the 2008 City of Modesto Urban Area General Plan. A fast-food restaurant and a shopping center with a gas station, grocery store and other shops, currently occupy the existing interchange's southeast quadrant .

The southwest quadrant of the proposed interchange consists of land designated as commercial by the 2008 City of Modesto Urban Area General Plan. Current land uses adjacent to the southwest quadrant consist of a hotel and a used car-dealership.

Environmental Consequences

A Relocation Impact Statement was prepared in March 2009 to provide information on the impact the proposed project would have on residential and non-residential occupants within the project Build Alternative. The proposed project is at an urbanized area surrounded by retail commercial, industrial, residential, and some agricultural land uses. The Build Alternative would require the full acquisition of five parcels holding existing commercial businesses directly in the project impact area, and partial acquisitions of commercially developed parcels and undeveloped parcels adjacent to the proposed project area (see Figure 2-1). The Build Alternative would not result in the acquisition of any existing

homes. Table 2.2 summarizes the proposed acquisitions associated with the build alternative.

Table 2.2 Build Alternative - Proposed Acquisitions

Full Acquisition	
Non-residential Displacement (Type/Employees)	
Restaurant/Bar	8 +/-
Retail/Service Station	10 +/-
Fast Food Restaurant	25 +/-
Unimproved Lot	0
Unimproved Lot	0
Partial Acquisition	
Non-residential Displacement (Type/Employees)	
Unimproved Lot	0
Unimproved Lot	0
Lodging	0

The proposed Build Alternative would impact a fast food restaurant, a retail store, a service station/mini mart, and a restaurant. There are currently business opportunities and real estate opportunities similar to the gas station and mini-mart and valued roughly the same, listed and available within the proposed project area. There are only two franchise-type fast food restaurants in the immediate area, but several restaurant pads are available for lease and sale in the vicinity. Table 2.3 summarizes relocation resources available to displacees.

Table 2.3 Summary of Relocation Resources Available (Non-residential)

Relocation Resource	For Rent	For Sale	Total Units
Gas Station Improved	8	4	12
Gas Station Pads	2	5	7
Restaurants (F/F)	4	2	6
Restaurant/Bar	6	12	18
Restaurants Pad	2	6	8
Commercial/Retail	42	20	62

Sources: Loopnet, CBRE, Local Coldwell Banker's RE Offices, etc.

All parties would be treated in a fair and equal manner as prescribed by Caltrans policy, the Federal Uniform Relocations Assistance Programs and Real Property Acquisition Policies Act of 1970 (as amended, Title 49-Code of Federal Regulations-Part 24, and Title VI of the Civil Rights Act (42 US Code 2000d, et seq). See Caltrans' Title VI Policy Statement in Appendix B.

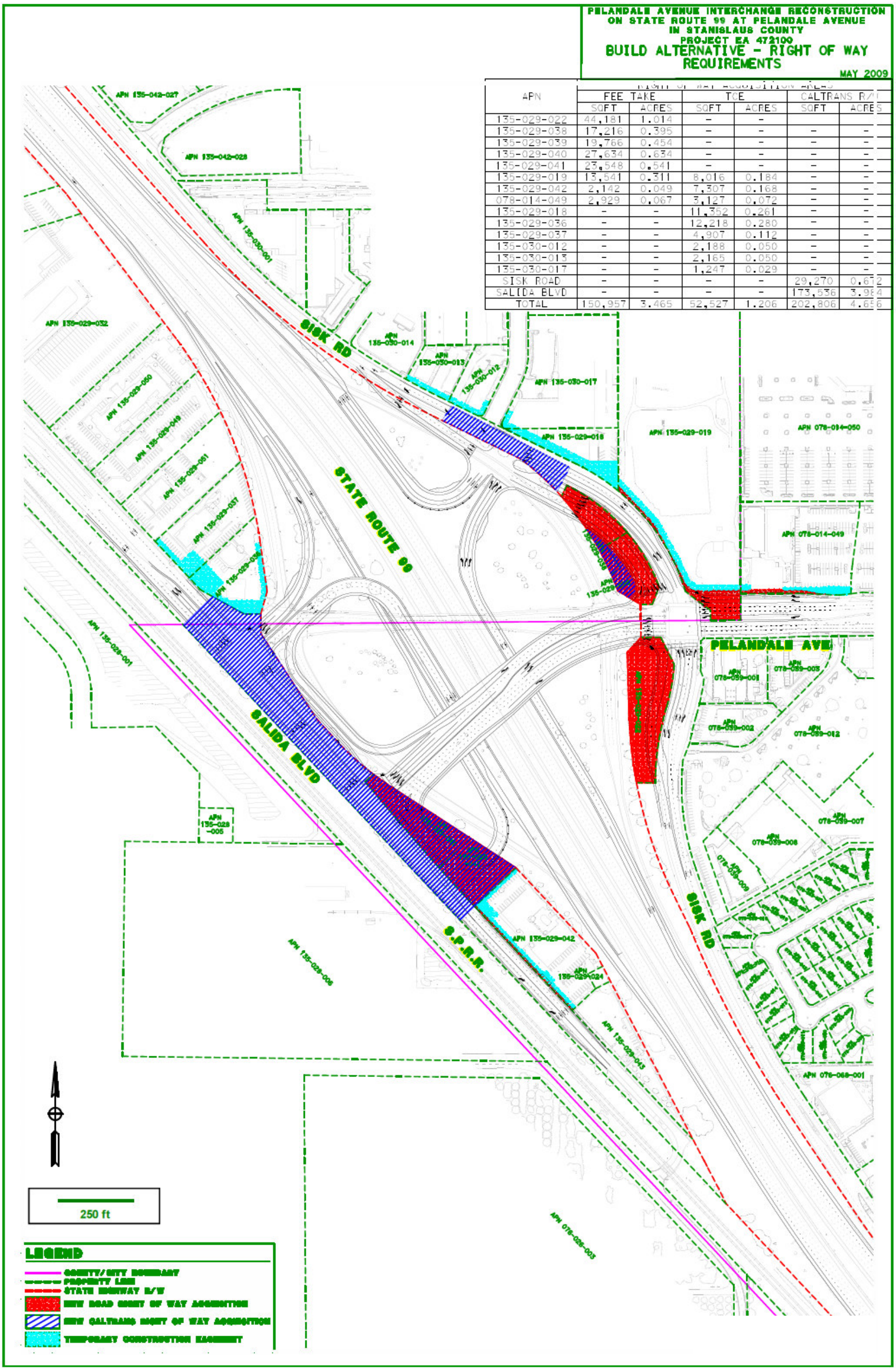
Temporary/Construction Impacts

Temporary construction easements would be required at existing parking lots and undeveloped parcels. The availability of parking spaces would be reduced, however, it is anticipated that access to businesses (affected by the temporary easements) would be available during construction.

With implementation of the Caltrans Relocation Assistance Program, no substantial impact to persons, businesses, or property access would result from construction of the proposed project.

Avoidance, Minimization, and/or Mitigation Measures

In accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, relocation advisory assistance will be provided to any person, business, farm or nonprofit organization displaced as a result of the acquisition of real property for public use (Section 2.1.2).



APN	FEE TAKE		TCE		CALTRANS R/W	
	SQFT	ACRES	SQFT	ACRES	SQFT	ACRES
135-029-022	44,181	1.014	-	-		
135-029-038	17,216	0.395	-	-	-	-
135-029-039	19,766	0.454	-	-	-	-
135-029-040	27,634	0.634	-	-	-	-
135-029-041	23,548	0.541	-	-	-	-
135-029-019	13,541	0.311	8,016	0.184	-	-
135-029-042	2,142	0.049	7,307	0.168	-	-
078-014-049	2,929	0.067	3,127	0.072	-	-
135-029-018	-	-	11,352	0.261	-	-
135-029-036	-	-	12,218	0.280	-	-
135-029-037	-	-	4,907	0.112	-	-
135-030-012	-	-	2,188	0.050	-	-
135-030-013	-	-	2,165	0.050	-	-
135-030-017	-	-	1,247	0.029	-	-
SISK ROAD	-	-	-	-	29,270	0.672
SALIDA BLVD	-	-	-	-	173,536	3.984
TOTAL	150,957	3.465	52,527	1.206	202,806	4.656

Figure 2-1 Right-of-Way Requirements

2.1.3 Utilities/Emergency Services

Affected Environment

Gas, water, electric, telephone, and cable lines are located along Sisk Road. Telephone lines are also located along Pelandale Avenue on the existing overcrossing. Gas, water, electric, and telephone lines are also located along Salida Boulevard.

Environmental Consequences

No permanent impacts to public utilities are anticipated. The existing utility lines would be accommodated to ensure utilities will remain in service. There would be no negative impacts to public services such as fire, police, or emergency medical response. The proposed project would not create additional demand for these services.

Temporary/Construction Impacts

Utilities would be adjusted and accommodated for before or during construction to ensure construction would not impact service. Utility impacts would include relocation of: underground telephone line over Pelandale Avenue and adjacent to parcels west of the southbound on-ramp; six poles carrying electric cables; and seven fire hydrants. Construction would be planned to allow emergency responders to continue to use the roadway. Planned lane closures, an emergency detour plan, and an emergency notification plan would be used to manage transportation movements at the construction area. A number of construction stages have been identified to shift traffic on Salida Boulevard and Sisk Road to facilitate construction of the new hook-ramp terminal intersections without prolonged ramp closures. No ramp closures during peak traffic times are anticipated. Along State Route 99, at least one through traffic lane would be open at all times. Ramp closures may occur at night, however no two consecutive or opposing ramps would be closed at the same time. There would be no temporary negative impacts to public services such as fire, police, or emergency medical response.

Avoidance, Minimization, and/or Mitigation Measures

Impacts to traffic flow as a result of construction activities would be minimized by implementing a traffic management plan and a construction phasing plan for the proposed project. The traffic management plan includes requirements to provide the public with information through brochures and mailers, media releases, public meetings, and notification to impacted groups. Actions would be implemented to minimize disruption to traffic during construction, including minimizing the number of days traffic is disrupted due to lane closures and temporary detours.

2.1.4 Traffic and Transportation/Pedestrian and Bicycle Facilities

Regulatory Setting

Caltrans, as assigned by FHWA, 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 CFR 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

A Final Traffic Operations Report was prepared for the proposed project. The study area included State Route 99 from Standiford Avenue/Beckwith Road to Kiernan Avenue (mainline and ramp junctions). In addition, the following five intersections were evaluated: Salida Boulevard/Pelandale Avenue, State Route 99 Southbound Ramps/Pelandale Avenue, State Route 99 Northbound Ramps/Pelandale Avenue, Sisk Boulevard/Pelandale Avenue, and Shopping Center Driveway/Pelandale Avenue.

Along mainline State Route 99 at the interchange, Table 2.5 shows a level of service D is experienced during peak hours. Ramps at the existing interchange operate mostly at level of service D or E.

Traffic demand volumes at the interchange are anticipated to increase at the State Route 99/Pelandale Avenue interchange in the future. The Final Traffic Operations Report forecast traffic demand volumes based on substantial coordination with the Stanislaus Council of Governments, Caltrans, the City of Modesto and their projected land uses. Table 1.1 in Chapter 1 shows the projected Average Daily Traffic at representative locations at the State Route 99/Pelandale Avenue interchange.

As shown in Table 2.4, the accident history for portions of mainline State Route 99 and ramps to Pelandale Avenue indicate that at three locations the existing interchange and a segment of State Route 99 have a higher overall accident rate higher than the statewide average for similar facilities.

Table 2.4 Accident History for State Route 99

Main Line Facility	Number of Accidents			Accident Rate (accidents/million vehicle miles)					
				Actual			State Average		
	Total	Fatal	Fatal + Injury	Fatality	Fatal + Injury	Total	Fatality	Fatal + Injury	Total
Northbound State Route 99 from Standiford to Kiernan	58	0	13	0.000	0.15	0.66	0.010	0.32	0.96
Southbound State Route 99 from Kiernan to Standiford	62	2	21	0.023	0.24	0.71	0.010	0.32	0.96
Northbound Off-Ramp to Pelandale	11	0	2	0.000	0.35	1.92	0.005	0.61	1.50
Southbound On-Ramp from Pelandale	2	0	1	0.000	0.18	0.37	0.002	0.32	0.80
Northbound On-Ramp from Pelandale	2	0	0	0.000	0.23	0.46	0.002	0.32	0.80
Southbound Off-Ramp to Pelandale	8	0	4	0.000	0.88	1.75	0.005	0.61	1.50

Note: Shading denotes locations that exceed the statewide average.
Source: Final Traffic Operations Report (Fehr & Peers, May 2009), Table 9. Caltrans District 10 TASAS data between 1/1/2005 and 12/31/2007.

Table 2.5 Level of Service in Project Area

	Peak Hour	Existing Condition	No-Build		Build Alternative	
		2008	2015	2035	2015	2035
		LEVEL OF SERVICE				
Intersection						
Pelandale Avenue and Salida Boulevard	Morning	C	C	F	B	C
	Afternoon	C	F	F	B	B
Salida Boulevard and State Route 99 Southbound Ramps	Morning	C	C	F	A	A
	Afternoon	F	F	F	B	B
Sisk Road and State Route 99 Northbound Ramps	Morning	C	F	F	B	B
	Afternoon	C	F	F	B	C
Pelandale Avenue and Sisk Road	Morning	C	E	F	C	D
	Afternoon	E	F	F	C	C
Mainline/Weave						
Northbound State Route 99 south of Standiford Avenue	Morning	D	F	E	F	E
	Afternoon	D	D	C	D	C
Northbound State Route 99 Standiford Avenue to Pelandale Avenue	Morning	D	F	F	F	F
	Afternoon	C	D [F]	C[F]	D	C
Northbound State Route 99 Pelandale Avenue to Kiernan Avenue	Morning	D	F	E	E (D)	F (E)
	Afternoon	C	D	C	D (C)	B (B)
Northbound State Route 99 north of Kiernan Avenue	Morning	D	F	F	F	F
	Afternoon	C	D	C	D	C
Southbound State Route 99 north of Kiernan Avenue	Morning	D	E	E	E	E
	Afternoon	D	F	E	F	E
Southbound State Route 99 Kiernan Avenue to Pelandale Avenue	Morning	D	E	D[F]	D (C)	D (C)
	Afternoon	D	E [F]	D[F]	E (D)	E (D)
Southbound State Route 99 Pelandale Avenue to Standiford Avenue	Morning	D	E	D	E	D
	Afternoon	D	E	D	E	D
Southbound State Route 99 south of Standiford Avenue	Morning	D	E	D	E	D
	Morning	D	E	D	E	D
Ramp Junction Analysis						
Northbound State Route 99 Pelandale Off-Ramp	Morning	D	F	F	F	F
	Afternoon	D	D[F]	D[F]	B	A
Northbound State Route 99 Pelandale On-Ramp	Morning	D	F	F	E(D)	F(E)
	Afternoon	C	D	D	D(C)	B(B)
Southbound State Route 99 Pelandale Off-Ramp	Morning	E	F	E[F]	D (C)	D (C)
	Afternoon	F	F	E[F]	E (D)	E (D)
Southbound State Route 99 Pelandale Avenue On-Ramp	Morning	C	D	D	D	D
	Afternoon	D	D	C	D	C

Source: Final Traffic Operations, May 2009 1) Functional LOS is presented in brackets ([ ]).These sections are heavily influenced by the off-ramp vehicle queues at the Pelandale Avenue ramp terminal intersections. The functional LOS is a better estimate of the true traffic operations. Results in parentheses () are from the Leisch Method updated to 2000 HCM capacities.

Table 2.5 compares the level of service at key intersections, portions of mainline State Route 99, and ramp junctions at the Pelandale Avenue interchange. The comparison summarizes the difference between the No-Build Alternative and Build Alternative conditions in 2015 and 2035.

Pedestrian and Bicycle Facilities

Pedestrian facilities include sidewalks along all roads within the proposed project limits, including on the south side of the Pelandale Avenue overcrossing, the east side of Sisk Road, and east side of Salida Boulevard. Public transportation in the proposed project area consists of routes handled by the Modesto Area Express, the local public transit agency. Routes passing through and serving the project area are lines 28, 41, 36, and 25; the Altamont Commuter Express bus; and the Bay Area Rapid Transit Express. Route 28 runs along Sisk Road and Pelandale Avenue; Route 41 runs along Standiford Avenue at the State Route 99/Standiford Avenue Interchange; and Route 36 and 25 run along Sisk Road at the State Route 99/Standiford Avenue interchange. The Altamont Commuter Express runs along State Route 99 from Vintage Fair Mall at the State Route 99/Standiford Avenue interchange to Lathrop and back. The Bay Area Rapid Transit Express bus also runs along State Route 99 from Vintage Fair Mall to Dublin/Pleasanton and back (Modesto Area Express 2009). No dedicated bicycle facilities are within the proposed project area. Modesto's existing bicycle system includes Class I – Bicycle Paths; Class II – Bicycle Lanes; and Class III – Bicycle Routes, however, none are within the proposed project limits (City of Modesto, 2009).

Environmental Consequences

Travel Time and Travel Time Comparisons

"Vehicle hours of delay", an estimate of hours spent driving (through a specified area), is a useful unit to compare the time savings of the proposed project's different alternatives. Table 2.6 shows the total vehicle hours of delay for vehicles driving through five analyzed intersections (Pelandale Avenue and Salida Boulevard; Salida Boulevard and State Route 99 Southbound Ramps; Sisk Road and State Route Northbound Ramps; Pelandale Avenue and Sisk Road; Pelandale Avenue and Shopping Center). Shown in Table 2.6 below, the Build Alternative produces considerable time savings over the No-Build Alternative. With the Build Alternative, vehicle hours of delay through the intersections amount to the low hundreds, versus thousands of vehicle hours traveled with the No-Build.

Table 2.6 Vehicle Hours of Delay Comparison

	Peak Hour	Vehicle Hours Of Delay (Daily)			
		No-Build		Build Alternative	
		2015	2035	2015	2035
Intersections	**Morning**	441	2,191	70	136
	Afternoon	1,052	4,288	104	161
Source: Final Traffic Operations Report, May 2009					

Peak Period Performance, Level of Service, Arterial Impacts, and Intersection Impacts

As shown in Table 2.5, Level of Service would improve with the Build Alternative. With the No-Build alternative, level of service would decline to F at many of the representative intersections by 2015 during peak hours. With the No-Build Alternative, level of service would worsen to F at Pelandale Avenue and Salida Boulevard, Salida Boulevard and State Route 99 southbound ramps during the afternoon peak hour in 2015. With the No-Build Alternative, level of service would worsen to F at Sisk Road and State Route 99 northbound ramps during both morning and afternoon peak hours, and at Pelandale Avenue and Sisk Road, would worsen to E during the morning peak hour and F during the afternoon peak hour. In 2035, the four intersections discussed in Table 2.5 would reach level of service F with the the No-Build Alternative. Similarly, level of service will worsen to D, E, or F at mainline portions of State Route 99 with the the No-Build Alternative in 2015 and 2035.

With the Build Alternative, level of service would be improved over the No-Build condition for all of the four representative intersections, with the exception of Pelandale Avenue and Shopping Center during the morning peak hour in 2015 (the No-Build Alternative and the Build Alternative would both be level of service B at that location). Mainline State Route 99 portions would also be slightly improved. With the Build Alternative, State Route 99 portions would not reach a level of service F as often as with the No-Build Alternative in either 2015 or 2035. Major benefits are seen during the afternoon peak hour at northbound State Route 99 Standiford Avenue to Pelandale Avenue, and the morning peak hour at southbound State Route 99 from Kiernan Avenue to Pelandale Avenue. Most mainline portions with the Build Alternative reach level of service C or D. Similarly, most ramp junctions at the Pelandale Interchange would reach improved level of service C or D, compared to D or F under the No-Build condition.

Under the No-Build Alternative, all of the study intersections are anticipated to operate at level of service F during both peak hours. Under the Build Alternative, traffic operations are anticipated to improve to acceptable service levels (level of service D or better) at all locations due to an overall reduction in system-wide delay. Of the 40 mainline and ramp junctions (morning and afternoon combined), 25 are anticipated to operate at level of service E or worse under the No-Build Alternative. Under the Build Alternative, particularly with the benefit of auxiliary lanes as part of the improvements, the number of mainline and ramp junctions operating at level of service E or worse goes down from 25 to 16, a 36 percent decrease.

Motorists would benefit from the increased interchange capacity at State Route 99 and Pelandale Avenue proopsed by the build alternative. Safety would be enhanced with improvements to Level of Service, traffic operations and vehicle hours traveled.

The proposed project would not negatively alter traffic patterns for residents and business.

Pedestrian and Bicycle Facilities

Pedestrian facilities with the Build Alternative include sidewalks with grades (and curb ramps at intersections that satisfy Americans with Disabilities Act requirements) along at least one side of all the local streets throughout the project limits, including the south side of the new Pelandale Avenue overcrossing, the east side of Sisk Road, and along the northeast side of Salida Boulevard. Pedestrian and bicycle access would be similar to the existing access. Bus lines are not expected to be permanently be affected.

Temporary/Construction Impacts

Construction activities may result in temporary delays and obstacles because traffic may need to be slowed, stopped, or detoured. The traffic management plan would be designed to accommodate bus lines in and near the proposed project area. Although this is a negative impact, it would not be a substantial one due to its temporary nature. The traffic management plan, approved in December 2008, would minimize temporary/construction impacts.

Avoidance, Minimization, and/or Mitigation Measures

Impacts to traffic flow as a result of construction activities would be reduced by implementing the traffic management plan and a construction phasing plan for the proposed project. The traffic management plan includes requirements to provide the public with information through brochures and mailers, media releases, public meetings, and notification to impacted groups. Under the traffic management plan, travelers would be

informed with changeable message signs, traveler information systems (internet), and bicycle community information, if necessary.

2.1.5 Visual/Aesthetics

Regulatory Setting

The California Environmental Quality Act (CEQA) 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 Assessment was completed in March 2009. The Visual Impact Assessment evaluated the visual quality from within the right-of-way and outside of the right-of-way.

State Route 99 is not an officially designated scenic highway. Visual quality is generally low to medium from all views of the project area due to its developed character and the lack of natural or striking features within view of travelers. Views from the interchange and roadway are of medium quality because of the expanse of agricultural land in the background. The buildings and landscape features in the vicinity of the proposed project site contribute to the typical elements of an urbanized setting and they do not possess any particular aspects rendering the views distinctive or memorable. The foreground is typical of that found throughout the rural-urban fringes of Stanislaus County and Modesto and, as such, is not considered striking. Although buildings and shopping centers in the vicinity may have incorporated architecturally pleasing elements, no single structure or groups of structures stand out aesthetically.

Environmental Consequences

Direct line-of-sight of the proposed project would be mostly from drivers and pedestrians along Pelandale Avenue, Sisk Road, and Salida Boulevard, in addition to the drivers on State Route 99. Photographs of existing views and photosimulations of the Build Alternative are shown in Figures 2-2 through 2-5.

Overall, the general visual character in the vicinity of the proposed project has low vividness, low to medium intactness, and low to medium unity. This is because a) no unique or distinctive natural or built features currently exist at the proposed project area, and b) this area has a mix of land uses (agriculture, commercial retail, industrial, residential) creating a low to medium perception of intactness and unity. Also, since the proposed project is at an existing interchange, the overall character of the project area

would not change. The proposed Build Alternative would not substantially impact visual/aesthetic resources.

Temporary/Construction Impacts

Construction of the proposed project would temporarily change the local views since construction equipment would be visible from neighboring areas. Additionally, grading activities may expose soils. These impacts are temporary, and therefore, not considered substantial.

Avoidance, Minimization, and/or Mitigation Measures

The following measures will minimize the short-term/temporary impacts:

- Appropriate temporary erosion measures will be incorporated into the project design and construction schedule to minimize soil erosion due to wind and water. These measures will be implemented during construction as necessary.

- Erosion control measures implemented during ocnstruction and following construction will be in compliance with Executive Order 11988 (designed to prevent the introduction of invasive species and provide for their control and to minimize the economic, econogical, and human healthimpacts that invasive species cause). At the conclusion of construction, areas of bare soil shall be hydroseeded with native seed or naturalized seed species to prevent or at least minimize erosion. Seed species should be low growing varieties if possible to reduce fuel-load for roadside fire potential.

- Any revegetation of the project area, folowing construction, will also be in compliance with Executive Order 11988 and will focus on the use of appropriate native or naturalized plant species.

- Existing vegetation within the impact area will be preserved as feasible. Existing vegetation removed by the Roadway project shall be replaced in the form of Replacement Planting. Replacement Planting can be accomplished with the Highway Planting project.

- The proposed project would landscape areas adjacent to the roadside where feasible with native or naturalized plants that will provide shade; consequently reducing reflective heat, light, and glare.

- A landscape plan shall be developed to lessen potential visual impacts caused by construction and to address revegetation and shading issues in coordination with Caltrans Landscape Architecture staff for areas within the State right-of-way as well as County and City staff for areas lcoated outside the State right-of-way.

- To address graffiti concerns, anti-graffiti measures, such as vine plantings near proposed sound walls and retaining walls, would be considered.

The proposed project would not result in long-term aesthetic impacts with the following design features incorporated:

- The landscape plan will be consistent with relevant guidelines in the Draft Master Environmental Impact Report for the Urban Area General Plan Update (City of Modesto, 2008) and Salida Community plan (Stanislaus County, 2007), as they comply to current Caltrans design standards and guidelines.
- A lighting plan shall be developed that requires project lighting to be appropriately shielded. The proposed project's lighting design shall be consistent with Caltrans, Stanislaus County, and City of Modesto lighting guidelines and standards and will be developed in coordination with Caltrans' landscape architecture staff for areas within state right-of-way as well as with City and County staff.
- Architectural features, developed with the City, County, and Caltrans aesthetic standards, shall be considered for the bridge structure and exposed concrete areas, as appropriate, to meet the desired goals of the City, County, and Caltrans. The aesthetic features shall be developed in coordination with Caltrans' landscape architecture staff for areas within state right-of-way.
- The landscape plan will be consistent with the State Route 99 Corridor Enhancement Master Plan as it complies to current Caltrans Design standards and guidelines.

Figure 2-2 Existing View A
Looking north at the existing Pelandale Avenue Interchange

Figure 2-3 Photo-simulation of the Build Alternative at View A
View looking north towards the State Route 99/Pelandale Avenue Interchange

Figure 2-4 Existing View B
Existing view to the west south-west at State Route 99/Pelandale Avenue Interchange

Figure 2-5 Photosimulation of the Build Alternative at View B
Looking west south-west towards the State Route 99/Pelandale Avenue Interchange

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 (Water Resources Control) or from a regional water quality control board when the proposed 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 (Corps) to discharge dredged or fill material into waters of the United States.

Along with Clean Water Act Section 401, Clean Water Act Section 402 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 Water Resources Control and nine regional water quality control boards. Water Resources Control and the regional water quality control board 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.

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

Affected Environment

The proposed project is in the Middle San Joaquin-Lower Merced-Lower Stanislaus Watershed. This watershed generally flows towards the northwest from the Sierra Nevada mountain range. Domestic water comes from wells and treated surface water from the Tuolomne River. Groundwater quality can be affected by a number of factors including the type of water-bearing materials in which the water occurs, proximity to faults, water depth, and presence of surface contaminants. The Stanislaus River, approximately 4 miles north of the project site, is listed in the 303(d) list for impaired waters and is subject to Total

Maximum Daily Loads to improve water quality. The Stanislaus River is impaired due to excess amounts of diazinon, group A pesticides, mercury, and toxic pollutants.

Currently, roadway drainage flows off the roadway into existing roadside ditches where it is carried into four existing basins. These basins are connected by a series of culverts, which allow the basins to fill up to a depth of three feet before spilling out of the northeast basin through an 18-inch culvert that flows to the north. The culvert opens into a roadside ditch that continues flowing north. Existing medians drain to inlets that are connected by culverts to either existing storm drain pipe or existing ditches. The existing impervious area is approximately 21 acres.

Environmental Consequences

A Preliminary Drainage Report and Storm Water Data Report for the proposed project were prepared and serves the basis for the following analysis. The proposed project would increase runoff at the project site by adding additional impervious area from the new pavement. The existing impervious area is approximately 21 acres and the proposed impervious area is approximately 23 acres. In order to prevent future flooding at the project site as well as downstream of the project site, three retention additional basins are proposed within the state right-of-way. These retention basins will catch all of the onsite runoff through direct runoff, storm drain pipes, and roadside ditches.

The proposed project would result in a permanent increase in runoff, but would not result in substantial impacts to water quality. The proposed project is designed so stormwater runoff from 50-year and 100-year rain events would be fully contained and drained through proposed bioswales and infiltration basins. The proposed retention basins will contain all onsite runoff using open ditches and storm drain pipes to convey the runoff to the basins. Therefore, there will be no increase in velocity or volume of flow that would affect downstream flows.

Since water quality impacts from the proposed project are limited to storm water flows, and storm water runoff would be fully accommodated by the addition of proposed bioswales and infiltration basins, no impacts to groundwater are anticipated. The Build Alternative would have no substantial impact on water quality.

Temporary/Construction Impacts

The Build Alternative would increase runoff from hardscape areas and potentially increase pollutant levels temporarily during the construction phase. The Build Alternative would disturb 58 acres of soil (considering grading limits, road improvements, and right-of-way) during construction. Soil disturbance from construction may cause soil erosion and

sediment flow into stormwater. Toxic chemicals including, among others, gasoline, oils, grease, lubricants, and other petroleum-based products, could be released accidentally from construction equipment. Impacts to groundwater are not anticipated since the proposed project is a transportation project (not requiring substantial groundwater supplies) and storm water will be accommodated with proposed drainage features.

Avoidance, Minimization, and/or Mitigation Measures

For project areas exceeding one acre National Pollutant Discharge Elimination System guidelines necessitate the development of a Storm Water Pollution Prevention Plan by the contractor prior to construction to establish project-specific permanent and temporary best management practice(s). During the design phase, a Water Pollution Control Plan would be prepared to determine the minimum control requirements to be included in the Storm Water Pollution Prevention Plan.

Best management practices include any facilities and methods used to remove, reduce, or prevent storm water runoff pollutants from entering receiving waters. Erosion control methods, temporary and permanent best management practices, and improvement of drainage facilities along the roadway would minimize impacts from storm water runoff. The Storm Water Pollution Prevention Plan and National Pollutant Discharge Elimination System-compliant measures would ensure no adverse impacts would occur to water quality associated with the Build Alternative.

2.2.2 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. (e.g., Antiquities Act of 1906 [16 USC 431-433], Federal-Aid Highway Act of 1935 [20 USC 78]). Under California law, paleontological resources are protected by the California Environmental Quality Act, the California Code of Regulations, Title 14, Division 3, Chapter 1, Sections 4307 and 4309, and Public Resources Code Section 5097.5.

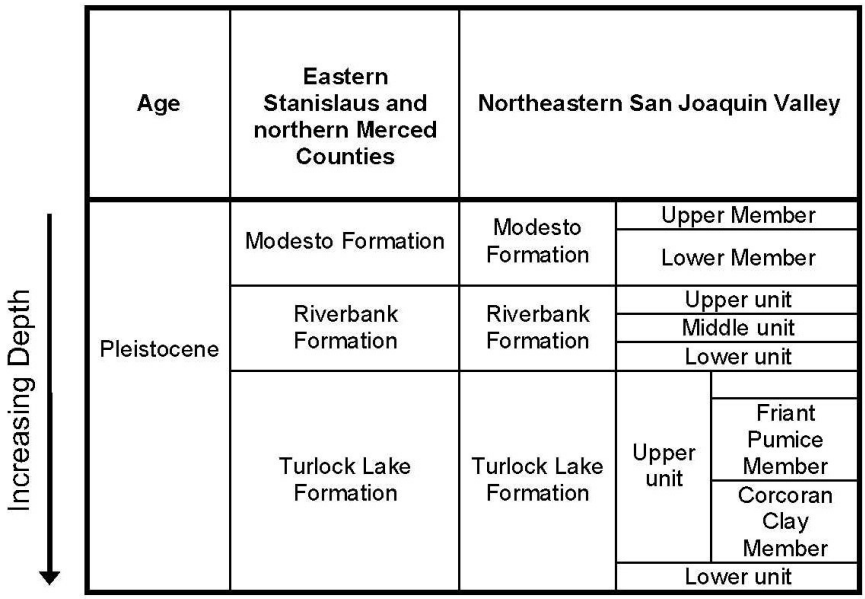
Affected Environment

A Paleontological Evaluation Report was prepared for the proposed project and provides the basis for information in this section. The project study area is located within the Great Valley Geomorphic Province. This province encompasses the San Joaquin and Sacramento Valleys and is bounded by the Sierra Nevada Mountains to the east, the Coast Ranges to the west, the Transverse Range to the south, and the Klamath Mountains to the north.

The proposed project lies within the upper regions of the San Joaquin Valley, near the southern end of the Sacramento Valley. The San Joaquin Valley itself is structural trough that covers 2,374 square miles and makes up the southern two-thirds of the Great Valley Geomorphic Province. The San Joaquin Valley extends from the northern limits in the Stockton-Tracy area, to the Transverse Ranges to the south. It is generally a flat structural basin bounded by the Sierra Nevada to east, the Coast Ranges to the west, the Tehachapi Mountains to the south, and the Sacramento-San Joaquin Delta to the north.

The proposed project area is underlain by the Modesto Formation. As discussed in the Paleontological Evaluation Report, although the Quaternary Modesto Formation is generally of moderate sensitivity, the project area was determined to have a high sensitivity ranking due to the existence of vertebrate fossils near the State Route 99/Pelandale interchange. Fossil localities near the project area include University of California Museum of Paleontology (UCMP) V87045, which had a vertebral fragment of a large mammal, UCMP V72186, a fossil of Bison latifrons, and locality UCMP 87045 (no catalogued specimens). These fossil localities are either within the Salida topographic quadrangle map or within one mile of the proposed project site.

The Riverbank Formation underlies the Modesto Formation, and the Turlock Lake Formation underlies the Riverbank Formation (see Figure 2-6). The Riverbank Formation and Turlock Lake Formation are also considered to have high sensitivity ranking due to having vertebrate fossil localities in the Central California region.



Sources: (1) Davis and Hall. 2008. Water quality of eastern Stanislaus and northern Merced Counties, California: Stanford University Publications. Geol Sci., volume 6, no 1, p. 112. (2) Marchand and Allwardt. 1981. Late Cenozoic Stratigraphic Units, Northeastern San Joaquin Valley, California, Geological Survey Bulletin 1470, http://pubs.er.usgs.gov/.

Figure 2-6 General Stratigraphy of Project Location

Environmental Consequences

Construction of the Build Alternative would potentially disturb areas of high sensitivity for paleontological resources. Shallow excavation is unlikely to yield vertebrate fossils, however, deep excavation for the proposed project's foundations and drainage basins for the Build Alternative would disturb areas with high sensitivity. To avoid effects on paleontological resources, monitoring during construction would be implemented. Monitoring would apply to activities requiring deep excavation for the proposed project's foundations and drainage basins, as identified in the Paleontological Evaluation Report. Impacts to Paleontological resources would be less than significant with mitigation incorporation.

Avoidance, Minimization, and/or Mitigation Measures

The following mitigation measures would be taken to avoid effects on paleontological resources:

- Prepare a Paleontological Mitigation Plan.
- Retain a qualified principal paleontologist who will be present at pre-grading meetings to consult with grading and excavation contractors.

- Arrange for the paleontological monitor, under the direction of the qualified principal paleontologist to be on site to inspect cuts for fossils at all times during original grading involving sensitive geologic formations.
- If fossils are discovered, the paleontologist (or paleontological monitor) will recover them. Halt construction work in these areas, or divert to other parts of the project area to allow recovery of fossil remains in a timely manner.
- Clean, repair, sort, and catalog fossil remains collected during the monitoring and salvage portion of the mitigation program.
- Deposit prepared fossils, along with copies of all pertinent field notes, photos, and maps in a scientific institution with paleontological collections.
- Complete a final report that outlines the results of the mitigation program.

2.2.3 Hazardous Waste/Materials

Regulatory Setting

Hazardous materials and hazardous wastes are regulated by many state and federal laws. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health and land use.

The primary federal laws regulating hazardous wastes/materials are the Resource Conservation and Recovery Act of 1976 and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (Superfund). The purpose of Superfund is to clean up contaminated sites so that public health and welfare are not compromised. The Resource Conservation and Recovery Act of 1976 provides for "cradle to grave" regulation of hazardous wastes. Other federal laws include:

- Community Environmental Response Facilitation Act of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety and Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act
- Federal Insecticide, Fungicide, and Rodenticide Act

In addition to the acts listed above, Executive Order 12088, Federal Compliance with Pollution Control, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act of 1976, and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning.

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during project construction.

Affected Environment

An Initial Site Assessment for the proposed project was prepared in February 2009. The Initial Site Assessment evaluated the potential for hazardous materials or petroleum hydrocarbons to exist within the study area, and was based on a governmental records search, select agency interviews, aerial photograph and topographic map review and visual site survey.

A one-mile radius search on federal, state, and local listings of known hazardous sites and hazardous waste handlers was conducted. The radius search identified 15 sites located within or adjacent to the study area and 27 sites within one mile of the study area. The sites were comprised of small quantity generators, underground fuel tanks, and solvent handlers. Fuel spills associated with three of the sites have been remediated and their cases have been closed. No evidence of the potential for Recognized Environmental Conditions (RECs) or Activity and Use Limitations (AULs) on the subject properties were identified within the data search and visual survey except for those listed in Table 2.7

A visual survey of the project area was conducted on February 21, 2008. There was no visible evidence of any spillage or surface staining. Published lists of known hazardous substance sites indicate that past spills have been remediated..

Under the California Environmental Quality Act checklist, consideration of hazardous emissions, handling of hazardous or acutely hazardous materials or substances or waste within a quarter mile of an existing or proposed school, is required. Schools within a quarter mile of the project area are the Waters Charter School of Learning on 4713 Greenleaf Court #A, Modesto, CA 95356, located just outside the project study area, about 300 feet from the corner of Sisk Road and Greenleaf Court; and the Brethren Heritage

School at 3549 Dakota Avenue, Modesto, CA 95358, about a half mile from the existing Pelandale overcrossing, but a quarter mile from the project study area.

Environmental Consequences

Known hazardous wastes sites or spills within the project area have been remediated. If the project area were to change (due to a change in the proposed project or staging area), further investigation for potential hazardous waste generators would be required to determine their impact within the revised project limits. The project study area is not anticipated to change; therefore, with the exception of the environmental screening described below, no additional investiagations are recommended at this time.

The scope on an initial site assessment is limited to anecdotal and visual evidence of potential recognized environmental conditions and does not include verification of recognized environmental conditions based upon environmental testing. Based on the governmental records search, select agency interviews, aerial photograph and topographic map review and visual site survey, the following actions would be implemented prior to completion of the final enviromental document to verify the presence/extent of recognized environmental conditions as listed in Table 2.7 and evaluate the potential for remediation during the Plans, Specifications & Estimate phase of the the project.

Temporary/construction impacts

As is the case for any project that proposes excavation, the potential exists for unknown hazardous contaimination to be revealed during project construction (such as previously undetected petroleum hydrocarbon cnotaimination from nearby gas stations or potential explosive threat if a Santa Fe Pacific petroleum transmission pipeline is ruptured during construction). At the time of the initial site assessment, there were no documented leaks or soil/groundwater contamination issues related to the existing service stations or gas pipelines within or immediately adjacent to the study area and no further investigation of these service stations/pipelines are recommmended. However, for any previously unknown hazardous waste/material encountered during construction, the procedures outlined within the Department's Construction Manual, Caltrans Hazards Procedures for Construction, shall be followed.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures would be implemented prior to completion of the final enviromental document to identify and establish proper processes for handling, cleanup, and disposal of such contamination if found prior to and during construction:

- Based on preliminary plans, right-of-way acquisition would be required at the Quik Stop Gas Station property (APN 135-029-039). A preliminary site investigation would be performed prior to completion of the Final Environmental Document to confirm the presence of any unknown hazardous waste/material. If hazardous waste is present, a detailed site investigation will be conducted to determine the volume and concentration of hazardous material. If hazardous waste is present in the construction zone, a remedial actions options report would be completed to address the proper handling, cleanup, and disposal of it.
- Asbestos surveys would be conducted utilizing a certified consultant. Asbestos-containing barrier rail shims are classified as a Category 1 nonfriable/nonhazardous material and asbestos-containing materials have also been documented in the rail shim sheet packing, bearing pads, support piers, and expansion joint material of existing bridges. If identified on the existing structures, they would be removed and disposed of by a licensed contractor registered with the California Occupational Safety and Health Administration for asbestos-related work or by a licensed and certified asbestos abatement contractor before modification to or demolition of the Pelandale Avenue Bridge structure, Salida Boulevard bridges or other buildings or structures that may be altered or demolished to accommodate the planned construction. It is recommended that the contractor be notified of the presence of asbestos. The ocntractor is responsible for informing the ladfill management of the intent to dispose of asbestos waste. Some landfills may require additional waste characterization. The contractor is responsible for segregating and characterizing waste streams before disposal.

  In accordance with San Joaquin Valley Air Pollution District regulation IV, Rule 4002, written notification to the San Joaquin Valley Air Pollution District is required 10 days before beginning of any demolition activity, whether asbestos is present or not.
- Test Yellow Stripe and Pavement Marking Materials. To avoid impacts from pavement striping during construction it is recommended that testing and removal requirements for yellow striping and pavement marking materials be performed in accordance with Caltrans Standard Special Provision 15-300 remove traffic stripe and pavement markings.
- Perform a preliminary aerially deposited lead investigation in areas of exposed soil within 50 feet of the paved surfaces of State Route 99 and associated on-and off-ramps and within 50 feet of Salida Boulevard (former alignment of State Route 99)

to determine the possible presence and levels of aerially deposited lead from motor vehicle exhaust emissions.

A Lead Compliance Plan is required for soils containg lead (California Code of Regulations, Title 8, Section 1532.1, the "Lead in Construction" standard) and to protect construction workers. This plan would also be required for work performed on painted structures. For samples where lead levels exceed hazardous waste criteria, the excavated soil should be either managed and disposed of as a California hazardous waste or stockpiled and resampled to confirm waste classification and potential utilization of the Department's hazardous waste variance agreement to recycle soil onsite.

- Conduct lead-based paint surveys utilizing a certified consultant prior to modifications/demolition of the existing Pelandale Avenue bridge structure, Salida Boulevard bridges or other buildings or structures that may be altered or demolished to accommodate the planned construction. Construction activities (including demolition) that disturb materials containing any amount of lead are subject to certain requirements of the California Occupational Safety and Health Administration lead standard contained in Title 8, California Code of Regulations, section 1532.1.

  It is recommended that personnel who work in the area have lead-related construction certification, as appropriate, form the California code for personnel performing "trigger tasks" as defined in Title 8 California Code of Regulations Section 1532.1(d). Common trigger tasks include manual scraping or sanding, heat gun applications, power tool cleaning, spray painting with lead paint, abrasive blasting, welding, cutting, grinding, and torch burning. Contractors should consult the California Occupational Safety and Health Administration (Cal/OSHA) lead standard for additional guidance.

  In accordance with Title 8, California Occupational Safety and Health Administration, Section 1532.1(p), written notification to the nearest California Occupational Safety and Health Administration district office is required at least 24 hours before certain lead-related work.

  Contractors are responsible for informing the landfill of the contractor's intent to dispose of Resource Conservation Recovery Act waste, California hazardous waste, and/or architectural components with intact lead-containing paint. Deteriorated paint is a surface coating that is cracking, chalking, flaking, chipping, peeling, non-intact, failed, stripped, or otherwise separated from the substrate. Demolition of a

deteriorated component with lead-containing paint would require waste characterization and appropriate disposal. Intact lead-containing paint on a component is currently accepted by most landfill facilities;however, contractors are responsible for segregating and characterizing waste streams prior to disposal. Some landfills may require additional waste characterization. Contractors are responsible for segregating and charcterizing waste streams before disposal.

Conduct an investigation of individual electrical transformers within the project study area. Should leaks from electrical transformers, whether they will remain within the construction limits or will require removal and/or relocation, be encountered, the transformer fluid should be sampled and analyzed by qualified personnel for detectable levels of PCBs. Any leaking transformers observed during the course of the project would be considered a potential polychlorinated biphenyl hazard unless tested and should be handled accordingly. Should PCBs be detected, the transformer would be removed and disposed of in accourdance with the appropriate regulatory agency prior to or during construction. Any stained soil encountered below electrical transformers with detectable levels of PCBs would also be handled and disposed of in accordance with the appropriate regulatory agency.

Table 2.7 Summary Table from Initial Site Assessment

Location	Description of REC Evidence Found	Description of Associated Activity and Use Limitations (AUL)
Pelandale Avenue bridge structure over State Route 99, Salida Boulevard bridge structures over Modesto Irrigation District Lateral No. 6 and buildings older than 1981 that may be demolished/altered due to planned construction activities.	Potential for asbestos-containing materials. Asbestos-containing materials have also been documented in the rail shim sheet packing, bearing pads, support piers, and expansion joint material of bridges.	None Found
Existing roadways within project boundaries including State Route 99 and associated on- and off-ramps, Pelandale Avenue, Salida Boulevard, Sisk Road and on- and off-ramps to Kiernan Avenue and Beckwith Road and the various smaller roads within the project boundaries.	Potential lead and heavy metals associated with pavement striping. Implementation of improvements may require the removal and disposal of yellow traffic stripe and pavement marking materials in a Class I disposal site.	None Found
Exposed soil in the project construction area within 50 feet of State Route 99 and associated on- and off-ramps and within 50 feet of Salida Boulevard (former State Route 99 alignment).	Potential elevated levels of lead in the exposed soil from vehicle exhaust emissions (aerially deposited lead).	None Found
Pelandale Avenue bridge structure over State Route 99, Salida Blvd. bridge structures over Modesto Irrigation District Lateral No. 6 and buildings/structures that may be demolished/altered due to planned construction activities.	Potential lead-based paint on painted portions of Pelandale Avenue bridge structure over State Route 99 and Salida Boulevard bridge structures over Modesto Irrigation District Lateral No. 6. Also, structures constructed prior to 1978 are presumed to contain lead-based paint unless proven otherwise, although buildings constructed after 1978 may also contain lead-based paints.	None Found
Various pole- and pad-mounted electrical transformers (including electrical substation on parcel 076-031-012) within or immediately adjacent to the project boundaries.	Potential PCB's in pole- or pad-mounted electrical transformers. As of the date of this ISA, the existence and/or levels of PCB's associated with the pole- or pad-mounted electrical transformers, had not been determined.	None Found
Santa Fe Pacific Gas Company (a.k.a. Kinder Morgan) petroleum pipeline located adjacent to, and parallel to the east side of Union Pacific Railroad tracks and adjacent to Salida Blvd.	Potential explosive hazard associated with the Santa Fe Pacific (a.k.a. Kinder Morgan) petroleum pipeline should construction activities extend into the pipeline easement. Potential for petroleum leaks from Santa Fe Pacific petroleum transmission pipeline adjacent to the west side of Salida Boulevard.	None Found
Parcels 135-029-036 (ARCO gas station), 135-029-039 (Quik Stop gas station), 135-042-026 (Boomers Fun Center, gasoline AST), 078-039-001 (Chevron gas station), 078-014-051 (Costco gas station).	Potential for underground or above-ground fuel storage tank leaks from existing gas stations and other businesses that store fuel within or immediately adjacent to the project boundaries. At the time of this initial site assessment, there was no documented evidence of soil or groundwater contamination associated with the existing business that store fuel within or immediately adjacent to the project study area.	None Found

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 quantity 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; the criteria pollutants are: 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 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 Stanislaus Council of Governments for Stanislaus 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 for purposes of project-level analysis.

Conformity at the project-level also requires “hot spot” analysis if an area is “nonattainment” or “maintenance” for carbon monoxide and/or particulate matter. A region

is a "nonattainment" area if one or more monitoring stations in the region fail to attain the relevant standard. Areas that were previously designated as nonattainment areas but have recently met the standard are called "maintenance" areas. Hot spot analysis is essentially the same, for technical purposes, as carbon monoxide or particulate matter analysis performed for NEPA purposes. Conformity does include some specific standards for projects that require a hot spot analysis. In general, projects must not cause the carbon monoxide standard to be violated, and in nonattainment areas the proposed project must not cause any increase in the number and severity of violations. If a known carbon monoxide or particulate matter violation is located in the proposed project vicinity, the project must include measures to reduce or eliminate the existing violation(s) as well.

Affected Environment

Air Quality and Air Quality Conformity analyses were completed in January 2009 for the proposed project. The proposed project is located in the San Joaquin Valley Air Basin, which is defined by the Sierra Nevada mountains in the east, the Coast Ranges in the west, and the Tehachapi mountains in the south. These topographic features, along with temperature inversions that trap air movement vertically, restrict air movement through and out of the basin. As a result, the San Joaquin Valley Air Basin is highly susceptible to pollutant accumulation over time and San Joaquin Valley Air Basin is in nonattainment for a number of air quality criteria pollutants.

Specific geographic areas are classified as either attainment or nonattainment areas for each pollutant based upon the comparison of measured data with federal and state standards. The attainment status for San Joaquin Valley, which encompasses eight counties including Stanislaus County, is shown in Table 2.8.

Table 2.8 State and Federal Air Quality Conformity

Standard	CO	PM_{10}	$PM_{2.5}$	O_3 1-hour	O_3 8-hour
Federal	Maintenance	Attainment (Maintenance)	Non-Attainment	No Federal Standard	Non-Attainment
State	Attainment	Non-Attainment	Non-Attainment	Non-Attainment	Non-Attainment

San Joaquin Valley is in nonattainment for 8-hour ozone, PM_{10}, and $PM_{2.5}$ for both Federal and State standards. The San Joaquin Valley is in maintenance for carbon monoxide.

Environmental Consequences

Regional Air Quality Conformity

The proposed project is subject to conformity because it is in an area in non-attainment or maintenance for criteria pollutants. The proposed project is not exempt from all emissions analyses under 40 CFR 93.126. The proposed project is not exempt from regional emissions analysis because it includes widening of Pelandale Avenue. A regional emissions analysis was conducted by Stanislaus County Council of Governments as a part of the Air Quality Conformity Analysis and demonstrated that the emissions are consistent with motor vehicle emissions budgets and goals of the relevant State Implementation Plan. The proposed project was locally defined as regionally significant project in Appendix B of the Stanislaus Council of Governments 2007 Final Air Quality Conformity Analysis that was federally approved on June 29, 2007.

The proposed project is fully funded and is in the 2007 Regional Transportation Plan which was found to conform by the Stanislaus Council of Governments on May 9, 2007, and FHWA and FTA adopted the air quality conformity finding on June 29, 2007. The proposed project is also included in Stanislaus Council of Governments' financially constrained 2007 Regional Transportation Improvement Program/State Transportation Improvement Program Augmentation, Appendix C-1. The Stanislaus Council of Governments 2006 Regional Transportation Improvement Program/State Transportation Improvement Program Augmentation was found to conform by FHWA and FTA 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 2006 Regional Transportation Implementation Program and the assumptions in the Stanislaus Council of Government's regional emissions analysis.

The SR 99/Pelandale Avenue Interchange Improvement Project is included in the 2009 Interim Federal Transportation Improvement Program (FTIP) for environmental analysis. The proposed project's open to the public year is consistent with the construction completion date indentified in the FTIP and/or RTP. FHWA issued a conformity determination for the 2009 Interim FTIP and update to the 2007 Regional Transportation Plan on February 27, 2009.

Project Level Conformity

If a project is located in a non-attainment or maintenance area for a given pollutant, then additional air quality analysis and reduction measures in regard to that pollutant is required. Analysis was prepared to determine any impacts on air pollutants in nonattainment or maintenance.

A carbon monoxide analysis was conducted using the two conformity-requirement decision flow-chart in the California Project-Level Carbon Monoxide Protocol. The analysis determined that total carbon monoxide concentrations are not expected to result in any carbon monoxide concentrations exceeding the one-hour or eight-hour carbon monoxide standards. Therefore a detailed hot spot analysis is not required. The proposed project would not cause or contribute to any new localize violations of the federal 1-hour or 8-hour carbon monoxide ambient standards.

A $PM_{2.5}$/ PM_{10} hot spot analysis was not conducted because the proposed project does not meet the definition of, and is not considered, a Project of Air Quality Concern. According to the Environmental Protection Agency's Transportation Conformity Guidance, an "interchange configuration project that involves either turn lanes or slots, or lanes or movements that are physically separated" is not a project of air quality concern. These kinds of projects improve freeway operations by smoothing traffic flow and keeping vehicle speeds steady through making it easier for motorists to change lanes and merge into mainline traffic. These improvements would not be expected to create or worsen $PM_{2.5}$ or PM_{10} violations. In addition, the guidance indicates that "interchange reconfiguration projects that are designed to improve traffic flow and vehicle speeds, and do not involve any increases in idling" are also not considered projects of air quality concern.

A hot-spot conformity assessment was provided by Caltrans to Interagency Consultation Partners. The hot-spot conformity assessment determined that the proposed project is not a project of air quality concern. Concurrence with the Interagency Consultation Partners on the Department's determination has been requested.

Temporary/Construction Impacts

During construction, short-term degradation of air quality may occur due to airborne dust generated by excavation, grading, hauling, and various other activities. Emissions from construction equipment also are anticipated and would include carbon monoxide, nitrogen oxides, volatile organic compounds, directly-emitted particulate matter ($PM_{2.5}$/ PM_{10}), and toxic air contaminants such as diesel exhaust particulate matter. Ozone is a regional pollutant that is derived from nitrous oxide and volatile organic compounds in the presence of sunlight and heat.

Site preparation and roadway construction would involve clearing, cut-and-fill activities, grading, removing or improving existing roadways, and paving roadway surfaces. Construction-related effects on air quality from most highway projects would be greatest during the site preparation phase because most engine emissions are associated with the

excavation, handling, and transport of soils to and from the site. If not properly controlled, these activities would temporarily generate $PM_{2.5}$/ PM_{10}, and small amounts of carbon monoxide, sulphur dioxide, nitrous oxide, and volatile organic compounds. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Construction activities for large development projects are estimated by the Environmental Protection Agency to add 1.09 tonne (1.2 tons) of fugitive dust per acre of soil disturbed per month of activity. If water or other soil stabilizers are used to control dust, the emissions can be reduced by up to 50 percent. Caltrans' Standard Specifications (Section 10) pertaining to dust minimization requirements requires use of water or dust palliative compounds and will reduce potential fugitive dust emissions during construction.

In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate carbon monoxide, sulphur dioxide, nitrous oxide, and volatile organic compound and some soot particulate (PM_{10} and $PM_{2.5}$) in exhaust emissions. If construction activities were to increase traffic congestion in the area, carbon monoxide and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site.

Sulphur dioxide is generated by oxidation during combustion of organic sulfur compounds contained in diesel fuel. Off-road diesel fuel meeting federal standards can contain up to 5,000 parts per million of sulfur, whereas on-road diesel is restricted to less than 15 parts per million of sulfur. However, under California law and Air Resources Board regulations, off-road diesel fuel used in California must meet the same sulfur and other standards as on-road diesel fuel, so sulphur dioxide-related issues due to diesel exhaust will be minimal. Some phases of construction, particularly asphalt paving, would result in short-term odors in the immediate area of each paving site. Such odors would be quickly dispersed below detectable thresholds as distance from the site increases.

Avoidance, Minimization, and/or Mitigation Measures

Most of the construction impacts to air quality are short-term in duration and, therefore, will not result in adverse or long-term conditions. Implementation of the following measures will reduce any air quality impacts resulting from construction activities:

To reduce fugitive dust emissions the construction contractor would adhere to the requirements of San Joaquin Valley Air Pollution Control District Regulation VIII. Construction of the project would require the implementation of control measures set forth under Regulation VIII.

The construction contractor shall comply with Caltrans' Standard Specifications Section 7-1.01F and Section 10 of Caltrans' Standard Specifications (1999):

- Section 7, "Legal Relations and Responsibility," addresses the contractor's responsibility on many items of concern, such as: air pollution; protection of lakes, streams, reservoirs, and other water bodies; use of pesticides; safety; sanitation; and convenience of the public; and damage or injury to any person or property as a result of any construction operation.
- Section 7-1.01F specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances.
- Section 10 is directed at controlling dust. If dust palliative materials other than water are to be used, material specifications are contained in Section 18.

Develop a dust control plan containing the following minimization measures:

- Employing sprinkling, temporary paving, speed limits, and expedited revegetation of disturbed slopes as needed to minimize construction impacts to existing communities.
- Applying water or dust palliative to the site and equipment as frequently as necessary to control fugitive dust emissions.
- Spreading soil binder on any unpaved roads used for construction purposes, and all project construction parking areas.
- Washing off trucks as they leave the right-of-way as necessary to control fugitive dust emissions.
- Maintaining all construction equipment and vehicles properly, and keeping it tuned. Using low-sulfur fuel in all construction equipment as provided in California Code of Regulations Title 17, Section 93114.
- Locating equipment and materials storage sites as far away from residential and park uses as practical. Keeping construction areas clean and orderly.

- Covering all transported loads of soils and wet materials prior to transport, or providing adequate freeboard (space from the top of the material to the top of the truck) to reduce PM_{10} and deposition of particulate during transportation.
- Removing dust and mud that are deposited on paved, public roads due to construction activity and traffic to decrease particulate matter.
- To the extent feasible, routing and scheduling construction traffic to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.
- Installing mulch or planting vegetation as soon as practical after grading to reduce windblown particulate in the area.

Compliance with the above standard measures would lessen the fugitive dust and regional emission impact during construction.

2.2.5 Noise

Regulatory Setting

The National Environmental Policy Act (NEPA) of 1969 and the California Environmental Quality Act (CEQA) provide the broad basis for analyzing and abating highway traffic noise effects. 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 NEPA and CEQA.

California Environmental Quality Act

CEQA requires a strictly baseline 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 CEQA, then CEQA dictates that mitigation measures must be incorporated into the project unless such measures are not feasible.

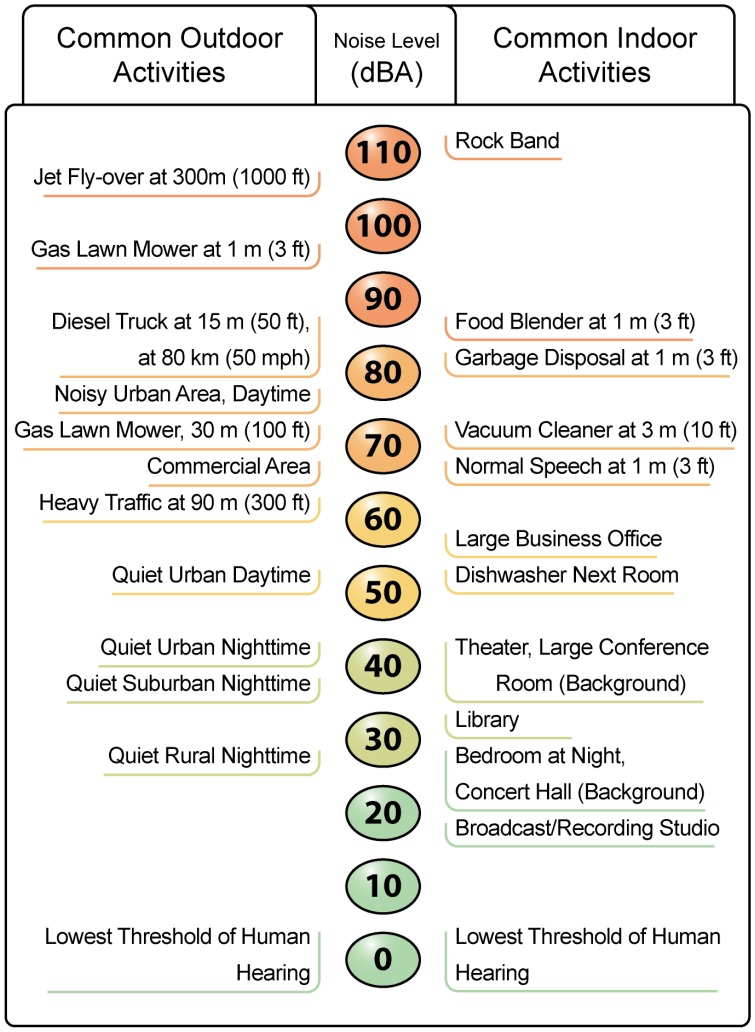
National Environmental Policy Act and 23 CFR 772

For highway transportation projects with FHWA (and Caltrans, as assigned) involvement, the Federal-Aid Highway Act of 1970 and the associated implementing regulations (23 CFR 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 noise abatement criteria for residences (67 dBA) is lower than the noise abatement criteria for commercial areas (72 dBA). The following Table 2.8 lists the noise abatement criteria for use in the NEPA-23 CFR 772 analysis, while Table 2.9 identifies real world examples of common noise causing activities and their measurements in decibles.

Table 2.9 Noise Abatement Criteria

Activity Category	NAC, Hourly A- Weighted Noise Level, dBA $L_{eq}(h)$	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

Table 2.10 Noise Levels of Common Activities



In accordance with Caltrans's 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 dBA 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 dBA of the noise abatement criteria.

If it is determined that the project will 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 in the proposed project.

Caltrans's 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 dBA 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 agency input, newly constructed development versus development pre-dating 1978 and the cost per benefited residence.

Affected Environment

A Noise Study Report for the proposed project was prepared in February 2009. In the report, developed and undeveloped land uses in the project vicinity were identified through land use maps, aerial photography, and site inspection. Land uses in the project vicinity include single-family residential, hotels, office, industrial, and commercial uses. From these land use categories, sensitive receptors were identified. Existing noise-sensitive land uses in the project area include single-family residence and hotels. Figure 2-7, Modeled Receptor Locations shows the locations of the 16 modeled receptors.

The generalized land use data and location of particular sensitive receptors were the basis for the selection of the noise monitoring and analysis sites. A total of 16 receptor locations were modeled to represent the land uses in the proposed project vicinity.

Receptor locations R-1 through R-13 represent potentially affected single-family residential land uses. Receptor locations R-14 to R-16 represent potentially affected hotel land uses.

Of the 16 modeled receptor locations, currently two receptors (R-4 and R-7) at single-family residential land uses and one receptor (R-14) at a hotel currently approach or exceed the noise abatement criteria under Activity Category B (67 dBA). Additionally, the existing noise levels at R-4, R-6, and R-7, and R-14 were at or above the City of Modesto's generally acceptable noise levels for low-density residential and motels or hotels (65 dBA).

Environmental Consequences

Noise Impact Analysis under Noise Abatement Criteria

The Noise Study Report evaluated noise impacts using the following steps:

> Existing noise levels were measured at receptor locations during off-peak traffic hours (9:00 a.m.-12:00 p.m.). Off-peak hours provide a time of day when traffic is free-flowing with vehicles traveling at normal operating speeds since they are not slowed down by congestion. These hours are the highest traffic noise hours.
>
> Future noise levels were modeled to 2035 for both the Build and the No-Build alternatives. The modeled future traffic noise levels were compared to the existing noise level and to the NAC to determine the potential noise impacts.

Table 2.11 summarizes the results of the noise impact analysis.

Table 2.11 Noise Level Summary and Modeling for Alternative 1, dBA Leq

Sound Wall No.	Receptor No.	Modeled Existing Noise Level	Predicted Noise Level without Project	Predicted Noise Level with Project	Noise Impact Requiring Abatement Consideration	Predicted Noise Level with Abatement (dBA)						Reasonable and Feasible
						6 ft Wall	8 ft Wall	10 ft Wall	12 ft Wall	14 ft Wall	16 ft Wall	
1	R-1	55	56	56	No	55	54	54	53	52	52	Yes
	R-2	57	58	58	No	57	56	55	55	53	53	Yes
	R-3	59	60	60	No	59	58	57	57	54	54	Yes
	R-4	66[3]	67	67	Yes	66	65	64	64	62	61	Yes
	R-5	65	66	66	Yes	65	64	63	63	61	61	Yes
	R-6	64	65	65	No	64	63	62	62	60	60	Yes
	R-7	66	67	67	Yes	66	65	64	64	61	61	Yes
	R-8	62	63	63	No	62	61	60	59	57	56	Yes
	R-9	58	59	59	No	58	57	57	56	54	54	Yes
	R-10	55	56	56	No	55	55	54	54	52	52	Yes
	R-11	58	59	59	No	58	57	56	56	54	54	Yes
	R-12	60	61	61	No	60	59	58	58	55	55	Yes
	R-13	63	64	64	No	64	62	61	61	58	58	Yes
2	R-14	72	73	73	Yes	70	69	68	66	65	64	No
	R-15	63	64	65	No	--[1]	--	--	--	--	--	No
	R-16	63	64	64	No	--	--	--	--	--	--	No

Source: LSA Associates, Inc., 2009b.
[1] No barrier was analyzed at this location because the modeled receptor would not approach or exceed the NAC.
dBA = A-weighted decibels
ft = feet
H = height

The following receptor locations would be exposed to noise levels that approach or exceed the noise abatement criteria:

R4, R5, and R7. These receptor locations represent existing residential properties on Wareham Way whose rear property line abuts Sisk Road. Currently, an existing 12 foot-high wall along the rear property lines shields these properties from noise. Measurements taken at Receptors R-4, R-5, and R-7 indicate that the existing noise levels at those locations are 66 dBA, 65 dBA, and 66 dBA, respectively. The future noise level at R-4, R-5, and R-7 without the proposed project would be 67 dBA, 66 dBA, and 67 dBA. The future noise levels at R4, R5, and R7 with the Build Alternative is predicted to be 67 dBA, 66 dBA, and 67 dBA, respectively, without sound walls. To achieve a 5 dBA reduction for the Build Alternative, a 14-foot noise wall would be needed. If the total cost of the wall at the location is less than the total cost allowance, then the wall would likely be incorporated into the proposed project. The total cost allowance, calculated in accordance with Caltrans's Traffic Noise Analysis Protocol, is $1,040,000. The current estimated cost of the wall is $939,708.

R14. This receptor location represents the hotel property, Motel 8. There is an existing 6-foot wall at the eastern edge of the outdoor pool area to shield this property from the State Route 99 southbound on-ramp and mainline traffic noise. Measurements taken at Receptor 14 indicate that the existing noise level at that location is 72 dBA. The future noise level at Receptor 1 without the proposed project would be 73 dBA. The future noise level at Receptor 1 with the proposed project is also predicted to be 73 dBA for the Build Alternative. Because the predicted future noise level exceeds the NAC for hotel uses (67dBA), Receptor 14 was evaluated for noise abatement. To achieve a 5 dBA reduction, a 10-foot noise wall would be needed. If the total cost of the wall at this location is less than the total cost allowance, then the wall would likely be incorporated into the proposed project. The total cost allowance, calculated in accordance with Caltrans' Traffic Noise Analysis Protocol, is $40,000. The current estimated cost of the wall is $377,190.

A Noise Abatement Decision Report was prepared to determine the reasonability and feasibility of sound walls for the proposed project.

Based on the studies completed to date, Caltrans intends to incorporate noise abatement in the form of a barrier at the eastern shoulder of northbound State Route 99 (see Sound Wall 1 in Figure 2-8), with a length of 1,356 feet and height of 14 feet. Calculations based on preliminary design data indicate that the barrier will reduce noise levels by 5 to 6 dBA for 26 residences at a cost of $939,708. Sound Wall 2 is not considered feasible under Caltrans's Traffic Noise Protocol since the estimated cost is greater than the cost allowance. If during final design, conditions have substantially changed, noise abatement may not be necessary. The final decision of the noise abatement will be made upon completion of the project design and the public involvement processes.

Figure 2-7 Monitored and Modeled Receptor Locations

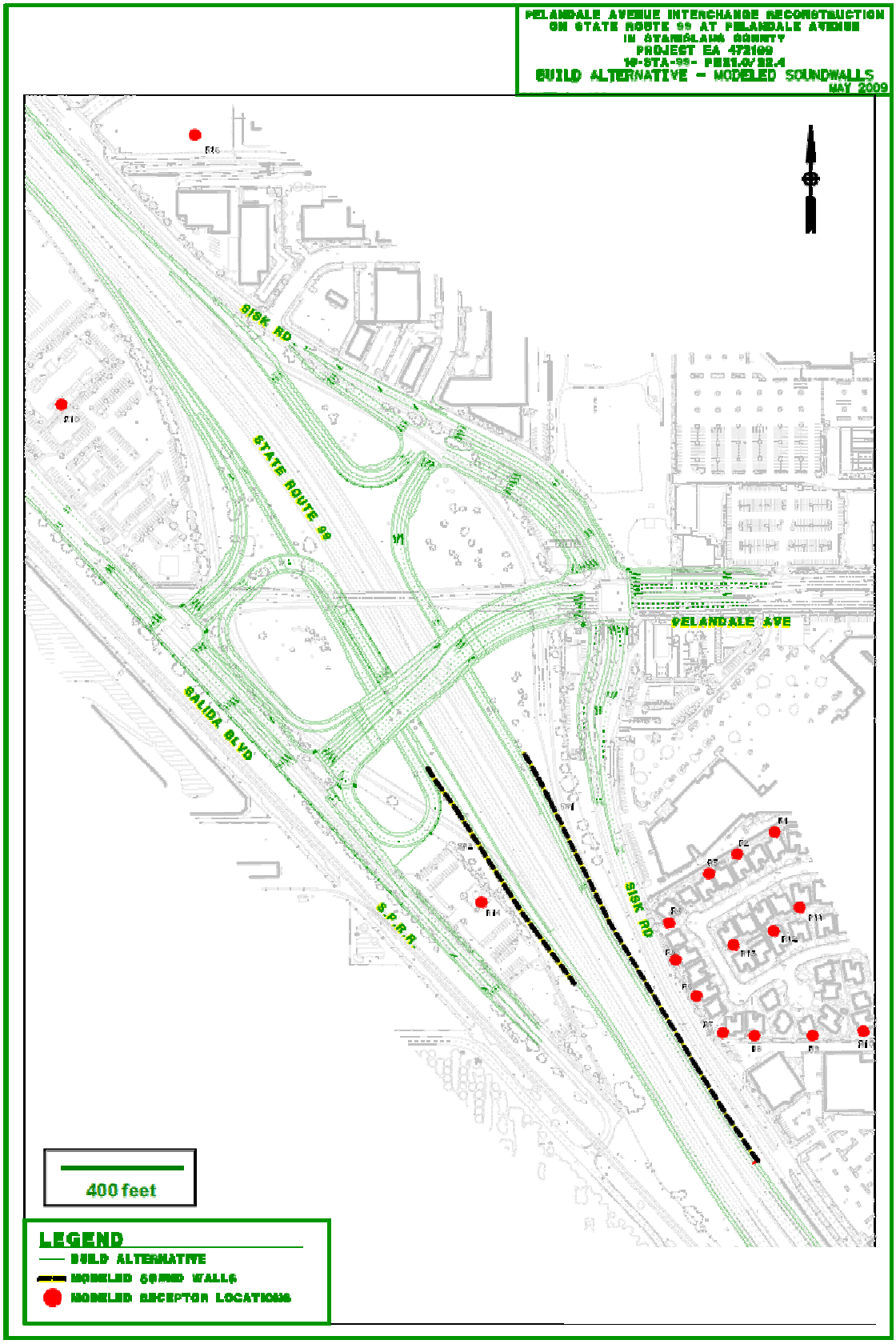


Figure 2-8 Build Alternative Modeled Sound Walls

Noise Impact Analysis under CEQA

When determining whether a noise impact is significant under CEQA, comparison is made between the baseline noise level and the build noise level. The CEQA noise analysis is completely independent of the NEPA-23 CFR 772 analysis discussed above, which is centered largely on noise abatement criteria. Under CEQA , 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.

The proposed project would not cause a substantial increase in noise levels. When compared to the No-Build Alternative, the proposed project would cause an increase of 1 to 2 dBA in the future (see column "Change from Future (2035) No Build" in Table 2.9. Any increase of less than 3 dBA is not perceptible to the human ear, therefore, the proposed project would not substantially impact noise levels under CEQA.

Temporary/Construction Impact

Implementation of the Build Alternative would result in noise affects from construction-related worker commutes, equipment transport, excavation, grading, and roadway construction. The closest sensitive receptor to proposed project construction areas would be the hotel land use Motel 8 represented by modeled receptor R14, which would be located within 50 ft of planned construction areas. This receptor location may be subject to short-term noise reaching 93 dBA Lmax generated by construction activities along the proposed project alignment.

Avoidance, Minimization, and/or Abatement Measures

Implementation of the following measures would be taken to avoid and minimize noise impacts:

- A Noise Abatement Decision Report was prepared to determine the reasonability and feasibility of sound walls for the proposed project. Based on the studies completed to date, Caltrans intends to incorporate noise abatement in the form of a barrier at the eastern shoulder of northbound State Route 99 (see Sound Wall 1 in Figure 2-9), with a length of 1,356 feet and height of 14 feet. Calculations based on preliminary design data indicate that the barrier will reduce noise levels by 5 to 6 dBA for 26 residences at a cost of $939,708. Sound Wall 2 is not considered feasible under Caltrans's Traffic Noise Protocol since the estimated cost is greater than the cost allowance.

- Limit night work to extent feasible
- To minimize the construction noise impact for sensitive land adjacent to the project site, construction noise is regulated by Caltrans Standard Specifications, Section 7-1.01I, "Sound Control Requirements,":

  7-1.01I Sound Control Requirements

  The Contractor shall comply with all local sound control and noise level rules, regulations and ordinances which apply to any work performed pursuant to the contract.

  Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without the muffler.
- Implement Caltrans Standard Special Provision (SSP) Section 5.1 (*Standard Specification* XE "S5-310_E_A06-05-09"). The provision applies to equipment on the project or associated with the project, including trucks, transit mixers, stationary equipment, and transient equipment. The provision would limit noise levels from the Contractor's operations not to exceed 86 dBA at a distance of 50 feet.

2.3 Biological Environment

2.3.1 Animal Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration Fisheries, 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 the introductory text of this chapter. 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 United States Fish and Wildlife Service or National Oceanic and Atmospheric Administration Fisheries 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

State laws and regulations pertaining to wildlife include the following:

- California Environmental Quality Act
- Sections 1600 – 1603 of the Fish and Game Code
- Section 4150 and 4152 of the Fish and Game Code

Affected Environment

The Natural Environmental Study Minimal Impact report, completed in September 2008, assessed the likelihood of special status animal species to occur within the biological study area.

Wildlife species occurring in the biological study area are those species adapted to ruderal vegetation in an urban setting. Since the biological study area is mostly developed the diversity of wildlife is low. The habitat is considered low-quality due to the high frequency of human disturbances and the dominance of non-native plants. Wildlife adapted to living in disturbed urban areas and likely to use the habitat in the biological study area include animals such as ground squirrel, western fence lizard, scrub jay and northern mockingbird. Trees associated with residences and/or businesses may provide nesting habitat for several bird species.

In addition, a variety of bird species are known to occur in urbanized settings, such as western scrub jay, house finch house sparrow, European starling, Brewer's blackbird, northern mockingbird, mourning dove and killdeer.

The California Natural Diversity Data Base, California Native Plant Society Online Edition (2008) and U.S. Fish and Wildlife Service online list (2008) were queried to compile a list of sensitive wildlife and plant species in the Salida quadrangle (USGS 7.5 Minute Topographic Map). The high level of disturbance and lack of native plant communities in the project area excludes the majority of the special-status plants and animals known to occur in the quadrangle overall. Consequently, most of the special-status animals and plants identified for the Salida quadrangle are not expected to occur in the biological study area. However, one special status species that may inhabit urbanized areas and could potentially occur in the biological study area is the burrowing owl.

The western burrowing owl is on the list of migratory birds protected by the Migratory Bird Treaty Act. It is also a state species of special concern, and listed on the Fish and Wildlife Service Migratory Nongame Birds of Management Concern. Burrowing owls occur in the warmer valleys associated with agriculture and urban areas that support populations of California ground squirrels. Burrowing owls nest in ground squirrel burrows and feed on

insects and small mammals. The preferred habitat consists of mounds in open fields with low vegetation. The California Natural Diversity Data Base contains no records for burrowing owl within the project vicinity. The closest known occurrences are greater than nine miles northeast and southwest of the biological study area.

The mature trees (consisting of landscape and windbreak trees) in the biological study area provide marginal suitable nesting habitat for migratory birds, and the weedy fields provide suitable foraging habitat. The weedy grassland in the biological study area may provide marginal foraging habitat.

Potential nesting and foraging habitat for burrowing owls in the biological study area is located along the railroad grade on the west side of State Route 99. Burrows that have the potential to support burrowing owls (i.e., with openings greater than four inches wide) were observed during the field survey. No sign of burrowing owls (e.g., pellets, whitewash) were observed.

Environmental Consequences

The Natural Environment Study stated that the probability of burrowing owl occuring in the biological study area is low, because the potential habitat for them is low quality due to the amount of disturbance and proximity to human activities.

Temporary/Construction Impacts

Temporary construction would have no substantial impact to animal species.

Avoidance, Minimization, and/or Mitigation Measures

- If possible, all trees that will be removed because of project construction will be removed during the non-nesting season (between October 1 and February 29). If this is not possible and project construction is to begin during the nesting season (March 1 to September 30), all trees and other suitable nesting habitat within the limits of work shall be surveyed by a qualified biologist prior to initiating construction-related activities.
- Preconstruction surveys and construction timing would minimize potential effects to burrowing owl and other nesting birds.
- Surveys will be conducted no more than 14 days prior to the start of work.
    - If no nesting is discovered, construction can begin as planned.
    - If an active nest is discovered, the nest tree shall be designated as an environmentally sensitive area and protected using orange construction fence or equivalent.

  - The environmentally sensitive area fencing shall be maintained in good condition until the end of the breeding season or until the young have fledged, as determined by a qualified biologist.

- Because burrows large enough to support burrowing owls were observed in the biological study area, a preconstruction survey for burrrowing owls shall be conducted in accordance with California Department of Fish and Game's Staff Report on Burrowing Owls (1995).
  - If the preconstruction surveys identify burrowing owls nesting on the site during the breeding season (February 1 through August 31), the nest shall be designated as an environmentally sensitive area and a 250-foot buffer shall be established on the project site around the occupied burrow and delineated using orange construction fence or equivalent. The buffer shall be maintained in place until the end of the breeding season or until a qualified biologist determines through non-invasive methods that 1) the birds have not begun egg laying, or 2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. Once the fledglings are capable of independent survival, the burrow(s) can be destroyed.
  - If the preconstruction surveys identify burrowing owls on the site during the non-breeding season (September 1 through January 31), burrowing owls occupying the project site shall be evicted from the project site by passive relocation as described in the California Department of Fish and Game's Staff Report on Burrowing Owls (1995).

- Replant slopes with native species. All constructed slopes and other graded areas resulting from project construction will be revegetated. Replanting will be accomplished through hydroseeding with an approved Caltrans native species seed mix.

2.4 Climate Change

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 (IPCC), the efforts devoted to greenhouse gas1 (GHG) emissions reduction and climate change research and policy have increased dramatically in recent years. In 2002, with the passage of Assembly Bill 1493 (AB 1493), California launched an innovative and pro-active approach to dealing with GHG emissions and climate change at the state level. AB 1493 requires the Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck GHG emissions; these regulations will apply to automobiles and light trucks beginning with the 2009 model year.

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this Executive Order is to reduce California's GHG emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the 2020 and 3) 80% below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG emissions reduction goals while further mandating that ARB 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 further directs state agencies to begin implementing AB 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 GHG reduction is also a concern at the federal level; at this time, no legislation or regulations have been enacted specifically addressing GHG 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 GHGs as a pollutant under the Clean Air Act

[1] Greenhouse gases related to human activity, as identified in AB 32, include: Carbon dioxide, Methane, Nitrous oxide, Tetrafluoromethane, Hexafluoroethane, Sulfur hexafluoride, HFC-23, HFC-134a*, and HFC-152a*.

(Massachusetts vs. Environmental Protection Agency et al., U.S. Supreme Court No. 05–1120. 549 U.S. 497 S. Ct. 1438 argued November 29, 2006—Decided April 2, 2007). The court ruled that GHGs do fit within the Clean Air Act's definition of a pollutant, and that EPA does have the authority to regulate GHGS. Despite the Supreme Court ruling, there are no promulgated federal regulations to date limiting greenhouse gas emissions.

According to Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate change in CEQA Documents (March 5, 2007), an individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may participate in a potential impact through its incremental contribution combined with the contributions of all other sources of GHG. In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable." See CEQA Guidelines sections 15064(i)(1) and 15130. To make this determination the incremental impacts of the proposed project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult if not impossible task.

As part of its supporting documentation for the Draft Scoping Plan, CARB recently released an updated version of the GHG inventory for California (June 26, 2008). Shown below is a graph from that update that shows the total GHG emissions for California for 1990, 2002-2004 average, and 2020 projected if no action is taken.

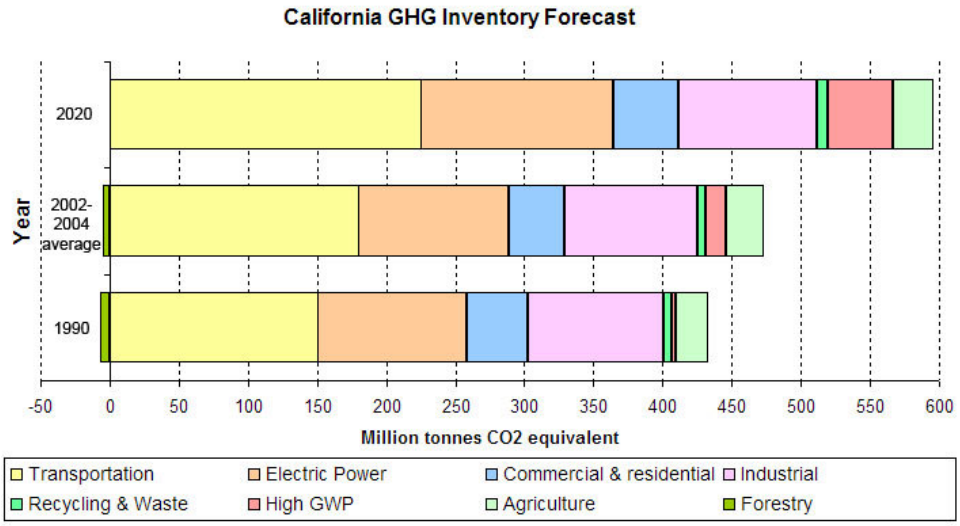
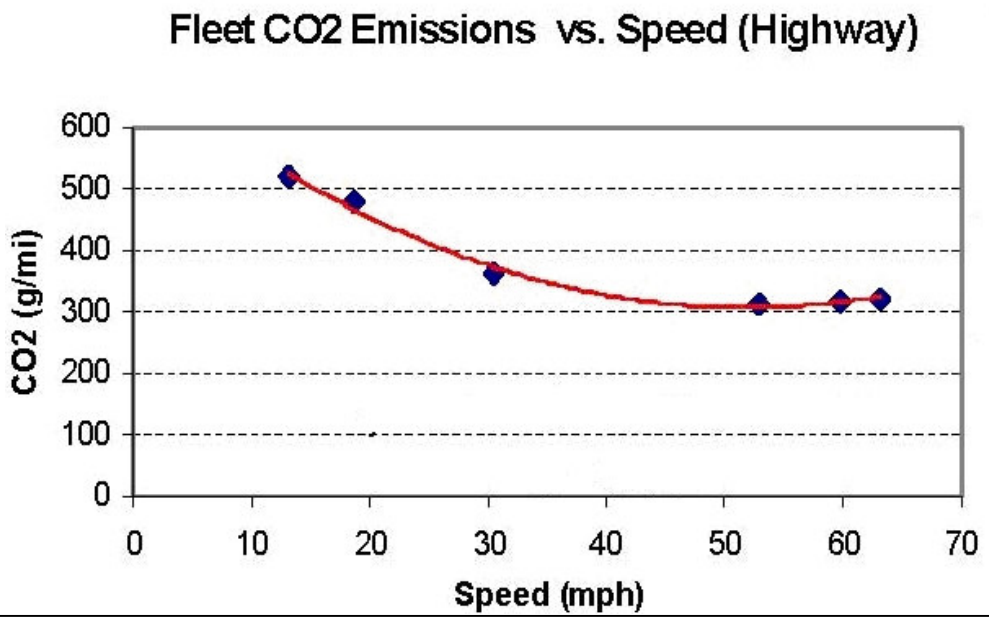


Figure 2-9 California GREENHOUSE GAS Inventory
Taken from : http://www.arb.ca.gov/cc/inventory/data/forecast.htm

The Department and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98 percent of California's GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from transportation, the Department has created and is implementing the Climate Action Program at Caltrans (December 2006). Transportation's contribution to GHG emissions is dependent on 3 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's Climate Action Program to reduce GHG 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 mph; the most severe emissions occur from 0-25 miles per hour (see Figure 2-9 below). Relieving congestion by enhancing operations and improving travel times in high congestion travel corridors will lead to an overall reduction in GHG emissions.



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

Figure 2.10 Fleet $C0_2$ Emissions vs. Speed (Highway)

As shown in Section 2.1.4, Level of Service levels are expected to improve with the Build Alternative. The proposed project would therefore meet the purpose of improving congestion at State Route 99/Pelandale Avenue Interchange. Motorists would benefit from the increased interchange capacity at State Route 99 and Pelandale Avenue proposed by the

build alternative. Safety would be enhanced with improvements to level of service, traffic operations and vehicle hours traveled.

The proposed project is also included in the Stanislaus Council of Governments' 2007 Regional Transportation Plan as a Tier I Fiscally Constrained project. Page 56 of the Regional Transportation Plan states as one of its objectives is to, "Develop a State Highway System that facilitates interregional and regional travel, safely and efficiently." The Regional Transportation Plan continues to state that one of its policies to meet the objective is that StanCOG "support the expansion of the State Highway System to reduce congestion, enhance goods movement…" and "ensure that the State Highway System operates efficiently to reduce congestion, improve mobility, and reduce air pollution for people and goods." The Regional Transportation Plan specifically states that one of the actions to implement these policies is to "construct the State Highway improvements identified in the [Regional Transportation Plan]." As part of the Regional Transportation Plan, the proposed project is a part of the Stanislaus Council of Governments' planned actions to reduce congestion, improve mobility, and reduce air pollution.

CEQA Conclusion

Based on the above, it is Caltrans determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and CEQA significance, it is too speculative to make a determination regarding the proposed project's direct impact and its contribution on the cumulative scale to climate change. However, as previously stated, Caltrans does not anticipate any increase in greenhouse gas emissions with the proposed project. Nonetheless, Caltrans is taking further measures to help reduce energy consumption and greenhouse gas emissions. These measures are outlined in Table 2.12 in the following section.

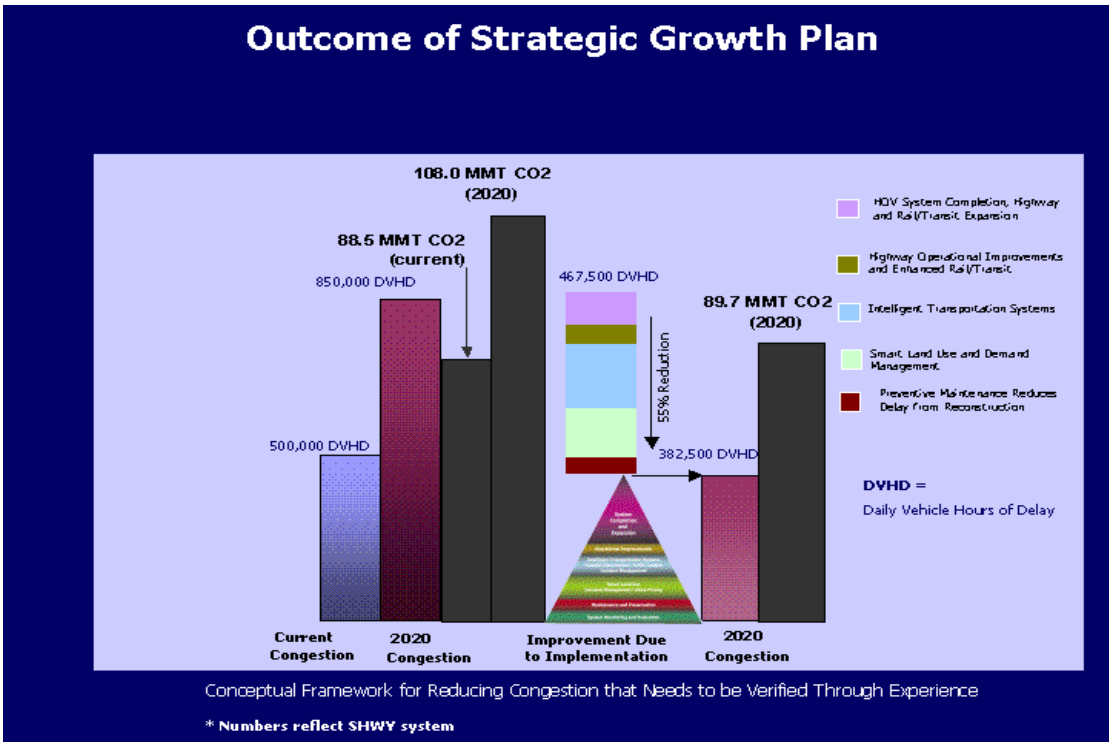
AB 32 Compliance

Caltrans continues to be actively involved on the Governor's Climate Action Team as California Air Resources Board works to implement AB 1493 and help achieve the targets set forth in Assembly Bill 32. Many of the strategies Caltrans is using to help meet the targets in Assembly Bill 32 come from the California Strategic Growth Plan, which is updated each year.

Governor Arnold Schwarzenegger's Strategic Growth Plan calls for a $222 billion infrastructure improvement program to fortify the state's transportation system, education, housing, and waterways, including $107 billion in transportation funding during the next decade. As shown on the figure below, the Strategic Growth Plan targets a significant decrease in traffic congestion below today's level and a corresponding reduction in

greenhouse gas emissions. The Strategic Growth Plan proposes to do this while accommodating growth in population and the economy. A suite of investment options has been created that combined together yield the promised reduction in congestion. The Strategic Growth Plan relies on a complete systems approach of a variety of strategies: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements.

Figure 2-11 Outcome of Strategic Growth Plan



As part of the *Climate Action Program at Caltrans* (December 2006, http://www.dot.ca.gov/docs/ClimateReport.pdf), Caltrans is supporting efforts to reduce vehicle miles traveled by planning and implementing smart land use strategies: job/housing proximity, developing 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, light and heavy-duty trucks; Caltrans is doing this by supporting on-going research efforts at universities, by supporting legislation efforts to increase fuel economy, and by its participation on the Climate Action Team. It is important to note, however, that the control of the fuel economy standards is held by the United States Environmental Protection Agency and California Air Resource Board.

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

Table 2.12 summarizes the Department and statewide efforts that Caltrans is implementing in order to reduce greenhouse gas emissions. For more detailed information about each strategy, please see *Climate Action Program at Caltrans* (December 2006); it is available at http://www.dot.ca.gov/docs/ClimateReport.pdf.

Table 2.12 Climate Change Strategies

STRATEGY	PROGRAM	PARTNERSHIP		METHOD/PROCESS	ESTIMATED CO2 SAVINGS (MMT)	
		Lead	Agency		2010	2020
Smart Land Use	Intergovernmental Review (IGR)	Caltrans	Local Governments	Review and seek to mitigate development proposals	Not Estimated	Not Estimated
	Planning Grants	Caltrans	Local and regional agencies & other stakeholders	Competitive selection process	Not Estimated	Not Estimated
	Regional Plans and Blueprint Planning	Regional Agencies	Caltrans	Regional plans and application process	0.975	7.8
Operational Improvements & Intelligent Trans. System (ITS) Deployment	Strategic Growth Plan	Caltrans	Regions	State ITS; Congestion Management Plan	.007	2.17
Mainstream Energy & Greenhouse Gas into Plans and Projects	Office of Policy Analysis & Research; Division of Environmental Analysis	Interdepartmental effort		Policy establishment, guidelines, technical assistance	Not Estimated	Not Estimated
Educational & Information Program	Office of Policy Analysis & Research	Interdepartmental, CalEPA, CARB, CEC		Analytical report, data collection, publication, workshops, outreach	Not Estimated	Not Estimated
Fleet Greening & Fuel Diversification	Division of Equipment	Department of General Services		Fleet Replacement B20 B100	0.0045	0.0065 0.45 .0225
Non-vehicular Conservation Measures	Energy Conservation Program	Green Action Team		Energy Conservation Opportunities	0.117	.34
Portland Cement	Office of Rigid Pavement	Cement and Construction Industries		2.5 % limestone cement mix 25% fly ash cement mix	1.2 .36	3.6
Goods Movement	Office of Goods Movement	Cal EPA, CARB, BT&H, MPOs		Goods Movement Action Plan	Not Estimated	Not Estimated
Total					**2.72**	**18.67**

The State of California maintains several websites that provide public information on measures to improve renewable energy use, energy efficiency, water conservation and efficiency, land use and landscape maintenance, solid waste measures, and transportation alternatives.

Chapter 3 – Comments and Coordination

Introduction

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 proposed 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 of Modesto and Caltrans's efforts to fully identify, address and resolve project-related issues through early and continuing coordination.

Scoping Process

A Public Information Meeting and Map Showing was held in August 15, 2001 to acquaint the public with the proposed project and receive input. During preparation of the Project Study Report, preliminary environmental considerations were taken into account by Caltrans.

During early stages of the Project Approval/Environmental Document phase, studied from 1996 to 2000, the project development team made recommendations to the interchange design. During that process eleven (11) "build" alternatives and a "no build" alternative were proposed. A partial Value Analysis Study was completed with the result that none of the proposed alternatives met the stated purpose and need.

During the current Project Approval/Environmental Document phase, coordination between the City of Modesto and Caltrans took place to determine project alternatives. The resulting Build Alternative was analyzed in this Initial Study.

Consultation and Coordination with Public Agencies

Consultation with several agencies occurred in conjunction with the preparation of the project technical reports and the Initial Study. These agencies are identified in the various technical reports and include:

- **Office of Historic Preservation, Department of Parks and Recreation** – Provided concurrence with the Department's determination of eligibility for two structures within the project limits.

- **City of Modesto –** Project sponsor and Project Development Team member. Participated in coordination efforts associated with the development of the project alternatives, Draft Project Report and production of the Initial Study.
- **Stanislaus Council of Governments** – Project Development Team member. Participated in coordination efforts associated with the development of the project alternatives, Draft Project Report and production of the Initial Study.

Additional coordination follows:

- A hot-spot conformity assessment was provided by Caltrans to Interagency Consultation Partners. The hot-spot conformity assessment determined that the proposed project is not a project of air quality concern. Concurrence with the Interagency Consultation Partners on the Department's determination was received on June 30, 2009.

Public Participation

A Public Information Meeting and Map Showing for the proposed project was conducted on August 15, 2001 at the Mildred Perkins Elementary School. The purpose of the Public Information Meeting and Map Showing was to acquaint the public and interested parties with the proposed project to reconstruct the State Route 99/Pelandale Avenue Interchange. Caltrans notified the public by sending approximately 35 announcements to property and business owners, residents and public agencies, and other interested parties. Letters of invitation were sent to federal, state, and local elected officials. Display advertisements noticing the meeting were placed in local newspapers.

Approximately 51 residents and interested parties attended the Public Information Meeting and Map Showing on August 15, 2001. Information stations containing project maps, graphics, and display boards were located around the room. Project team personnel were available at each information station to explain the displays, answer questions, and receive public input. Attendees were encouraged to write and submit written comments at the public comment station. Written comments were submitted by 14 residents and interested parties. Public input received at the meeting are summarized in Section II and Appendix A of the Record of Meeting prepared by Caltrans.

The current proposed project will similarly provide the opportunity for a public hearing. The hearing will be properly noticed in the local newspaper, and be available to the public at public facilities.

Chapter 4 – List of Preparers

California Department of Transportation

Christina Hibbard, Senior Project Manager. M.A., Anthropology; Project Management Professional from the Project Management Institute. Contribution: Project manager.

Gail Miller, Senior Environmental Planner. B.A., Public Administration, California State University, Fresno; 19 years land use and environmental planning experience. Contribution: Environmental document review.

Juan Torres, Associate Environmental Planner. B.A., Environmental Studies, University of the Pacific; 11 years environmental planning experience. Contribution: Environmental studies coordination and environmental document review.

Jes Padda, Design Oversight Engineer, Caltrans Central Region Project Development. B.S., Civil Engineering, California State University, Fresno; California Civil Engineer #59153; 14 years experience in transportation engineering. Contribution: Design oversight engineer, traffic section review.

Charles Walbridge, Associate Environmental Planner. B.S. Biology (Ecology), California State University, Fresno, 8.5 years experience in environmental impact assessment. Contribution: Natural environment study review.

John Brady, Associate Environmental Planner, District 10 Heritage Resource Coordinator. B.A., Political Science and Anthropology; M.A., History, California State University Fresno; 28 years experience as a consulting archaeologist and historian for Section 106 and CEQA compliance. Contribution?

Zachary Parker, Senior Environmental Planner. B.S., Environmental Biology, California State University, Humboldt; 11 years wildlife biology and environmental planning experience. Contribution: Natural environment study review and biological section review.

Abdul Rahim Chafi, Transportation Engineer. Ph.D., Environmental Engineering, California Coast University, Santa Ana; B.S., M.S., Chemistry and M.S. Civil/Environmental Engineering, California State University, Fresno; 14 years environmental technical studies experience. Contribution: Air quality study review.

Vladimir Timofei, Transportation Engineer. M.S., Civil Engineering, California State University, Fullerton; 10 years environmental technical studies experience. Contribution: Noise review.

Bill Duttera, Landscape Architect. Landscape Associate, Caltrans Central Region Project Development. B.S., Landscape Architecture, Cal Poly State University, San Luis Obispo. California Landscape Architect #4442; 20 years experience in landscape architecture. Contribution: Landscape architectural oversight.

Susan Greenwood, Associate Environmental Planner. B.S., Environmental Health Science, California State University, Fresno; 19 years environmental health, hazardous

waste, and hazardous material management experience. Contribution: Initial site assessment review.

Peter Hansen, Environmental Planner. B.S., Geology, California State University, Fresno; 3 years hazardous waste experience; 9 years paleontology/geology experience. Contribution: Paleontology review.

Dokken Engineering

Dokken Engineering (Project Design, Geotechnical, Hazardous Waste, Hydrology, Environmental Document, Cultural Resources)

Matt Boyer, Project Manager. B.S., Political Science; 21 years experience in transportation planning. Contribution: Project management.

Juann Ramos, P.E., Project Engineer. M.S., Civil & Environmental Engineering, B.S., Environmental Engineering; 13 years experience in civil engineering. Contribution: Project engineer.

Chris Segur, Civil Engineer. B.S., Civil Engineering; 6 years of experience in civil engineering. Contribution: Civil engineering

Ryan Neves, P.E., Civil Engineer. B.S. in Civil and Environmental Engineering; 6 years of experience in Civil Engineering. Contribution: Drainage

Rob Lawrence, Geotechnical Engineer. B.S. and M.S., Civil Engineering; 13 years experience in civil engineering. Contribution: Preliminary foundation report

Mike Wilson, P.G., R.E.A. B.A., Geological Sciences; 24 years of experience in the geotechnical field. Contribution: Initial site assessment, paleontology

Glen Parker, P.E., Senior Engineer. B.S., Civil Engineering; 9 years of transportation engineering experience. Contribution: Project report and design exception fact sheets.

Namat Hosseinion, Senior Environmental Planner. B.A. and M.A., Anthropology; 8 years environmental planning experience. Contribution: Environmental planning coordination and environmental document preparation.

Michelle Campbell, Senior Environmental Planner. B.A. and M.A., Anthropology; 9 years environmental planning experience. Contribution: Archaeology.

Cherry Zamora, Associate Environmental Planner. B.A. and M.A., Geography; 4 years environmental planning experience. Contribution: Environmental document preparation.

Sarah Jenkins, Associate Environmental Planner. B.A., Biology and B.S., Environmental Science; 2 years environmental planning experience. Contribution: Biology, environmental document preparation.

Tim Chamberlain, Associate Environmental Planner. B.A., Political Science; 4 years of experience. Contribution: Cultural resources and land use.

LSA Associates Inc. (Natural Environment, Air, and Noise Studies)

Jeff Bray, Biologist. B.S., Wildlife Biology; 15 years of experience. Contribution: Natural environment study, minimal impact.

Mike Trueblood, Biologist. B.S., Wildlife, Fish, and Conservation Biology; 8 years of experience in biological resources. Contribution: Natural environment study, minimal impact.

Phil Ault, Technical Analyst. M.S., Environmental and Energy Studies for Architecture. Contribution: Performed noise monitoring, TNM 2.5 modeling, wrote noise study report.

Teak Kim, Senior Noise Specialist. PhD, Civil Engineering. Contribution: Revised TNM 2.5 modeling and noise study report.

Jason Lui, Senior Noise Specialist. B.A. in Environmental Analysis and Design. Contribution: Revised noise study report.

Jason Paukovits, Air Quality Specialist. B.S., Environmental Resource Management; 8 years experience in environmental protection, policy, and planning. Contribution: Air quality analysis report.

Fehr and Peers Associates, Inc. (Traffic Forecasting/Operations)

Eddie Barrios, Associate. B.S., Civil Engineering, 11 years of transportation analysis experience. Contribution: Final traffic operations report.

Michael Beattie, Senior Engineer. B.S. and M.S., Civil Engineering; 6 years of transportation analysis experience. Contribution: Final traffic operations report.

Reid Middleton

Rachael Price, Project Engineer. B.S., Environmental & Civil Engineering; 9 years of experience in transportation engineering. Contribution: Roundabout geometrics.

Bender Rosenthal

Michael E. Lahodny, General Certified Appraiser; 30 years of experience in right-of-way appraisal and acquisition. Contribution?

Appendix A CEQA Checklist

Supporting documentation of all CEQA checklist determinations is provided in Chapter 2 of this Initial Study. Documentation of “No Impact” determinations is provided at the beginning of Chapter 2. Discussion of all impacts, avoidance, minimization, and/or compensation measures under the appropriate topic headings in Chapter 2.

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CEQA Environmental Checklist

10-SJ-9	21.0/22.4	10-472100
Dist.-Co.-Rte.	P.M/P.M.	E.A.

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included in Section VI following the checklist. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts.

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
	☐	☐	☐	☒
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☒
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☒
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒
IV. BIOLOGICAL RESOURCES: Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒
VI. GEOLOGY AND SOILS: Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☒
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
VII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:				

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒
VIII. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow	☐	☐	☐	☒
IX. LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b)Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XI. NOISE: Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?		☐	☐	☒
) 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?	☐	☐	☐	☒
XII. POPULATION AND HOUSING: Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
XIII. PUBLIC SERVICES:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☒
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒
XIV. RECREATION:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒
XV. TRANSPORTATION/TRAFFIC: Would the project:				
a) Cause an increase in traffic which 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)?	☐	☐	☐	☒
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Result in inadequate parking capacity?	☐	☐	☐	☒
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒
XVI. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant 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?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒
XVII. 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?	☐	☐	☐	☒
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

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

Appendix C Summary of Relocation Benefits

California Department of Transportation Relocation Assistance Program

Relocation Assistance Advisory Services

The California Department of Transportation (Caltrans) will 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 will assist residential displacees in obtaining comparable decent, safe and sanitary replacement housing by providing current and continuing information on sales price and rental rates of available housing. Non-residential displacees will receive information on comparable properties for lease or purchase.

Residential replacement dwellings will 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, displaces will 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 will 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

The links below are to the Relocation Assistance for Residential Relocation Brochure.

- http://www.dot.ca.gov/hq/row/pubs/residential_english.pdf
- http://www.dot.ca.gov/hq/row/pubs/residential_spanish.pdf

The Business and Farm Relocation Assistance Program

The links below are to the Relocation Assistance for Business and Farm Relocation Brochure:

- http://www.dot.ca.gov/hq/row/pubs/business_farm.pdf
- http://www.dot.ca.gov/hq/row/pubs/business_sp.pdf

Additional Information

No relocation payment received will 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 will 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 will 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 that 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 Caltrans's 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 10
1976 East Charter Way/East Dr. Martin Luther King Jr. Blvd.
Stockton, CA 95205
(209) 948-7543

Appendix D Minimization and/or Mitigation Summary

Resource	Avoidance, Minimization, or Mitigation Measure	Responsible Party	Implementation during:
Relocations	In accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, relocation advisory assistance will be provided to any person, business, farm or nonprofit organization displaced as a result of the acquisition of real property for public use (Section 2.1.2).	Caltrans	Right-of-way acquisition
Utilities/Emergency Services	Impacts to traffic flow as a result of construction activities would be minimized by implementing traffic management and construction phasing plans for the proposed project (Section 2.1.3).	Caltrans, construction contractor	Project approval phase, construction
Transportation and Traffic	Impacts to traffic flow as a result of construction activities would be reduced by implementing traffic management and construction phasing plans for the proposed project (Section 2.1.4).	Caltrans	Project approval phase
Visual Impact	• A lighting plan shall be developed (Section 2.1.5). • Architectural features, developed with the City, County, and Caltrans aesthetic standards, shall be considered for the bridge structure and exposed concrete areas, as appropriate, to meet the desired goals of the City, County, and Caltrans (Section 2.1.5). • The landscape plan will be consistent with the State Route 99 Corridor Enhancement Master Plan.	Caltrans, City of Modesto, Construction contractor	Project design, construction

Resource	Avoidance, Minimization, or Mitigation Measure	Responsible Party	Implementation during:
Water Quality and Storm Water	NPDES guidelines necessitate the development of a Storm Water Pollution Prevention Plan by the contractor prior to construction to establish project-specific permanent and temporary best management practice(s). During the design phase, a Water Pollution Control Plan would be prepared to determine the minimum control requirements to be included in the Storm Water Pollution Prevention Plan (Section 2.2.1).	Caltrans, construction contractor	Construction
Paleontology	The following mitigation plan will be prepared prior to construction. Measures described within the plan would be implemented during and post construction to avoid and minimize effects on paleontological resources. (Section 2.2.2): The Paleontological Mitigation Plan would contain the following: • A qualified principal paleontologist will be retained to be present at pre-grading meetings to consult with grading and excavation contractors. • Paleontological monitor, under the direction of the qualified principal paleontologist will be on site to inspect cuts for fossils at all times during original grading involving sensitive geologic formations. • If fossils are discovered, the paleontologist (or paleontological monitor) will recover them. Construction work in these areas will be halted or diverted to allow recovery of fossil remains in a timely manner. • Fossil remains collected during the monitoring and salvage portion of the mitigation program will be cleaned, repaired, sorted, and cataloged. • Prepared fossils, along with copies of all pertinent field notes, photos, and maps, will then be deposited in a scientific institution with paleontological collections. • A final report will be completed that outlines the results	Caltrans, construction contractor	Prior to construction, during construction

Resource	Avoidance, Minimization, or Mitigation Measure	Responsible Party	Implementation during:
	of the mitigation program.		
Hazardous Waste/Materials	• A Preliminary Site Investigation would be performed to confirm the presence of any unknown hazardous waste/material. If hazardous waste is present, a detailed site investigation would be conducted to determine the volume and concentration of hazardous material. If hazardous waste is present in the construction zone, a remedial actions options report would be completed to address the proper handling, cleanup, and disposal of it. • Conduct asbestos surveys utilizing a certified consultant prior to any modification to or demolition of the Pelandale Avenue Bridge structure, the Salida Boulevard bridges or other buildings or structures that may be altered or demolished to accommodate the planned construction. • Test yellow stripe and pavement marking materials. • Perform a preliminary aerially-deposited lead (ADL) investigation. • Conduct lead-based paint surveys utilizing a certified consultant prior to modifications/demolition of the existing Pelandale Avenue bridge structure, Salida Boulevard bridges or other buildings or structures that may be altered or demolished to accommodate the planned construction. • Test leaking transformers for PCBs if disturbed. . • Follow Caltrans Standards if unknown hazards are inadvertently discovered (Section 2.2.3).	Caltrans	Project planning

Resource	Avoidance, Minimization, or Mitigation Measure	Responsible Party	Implementation during:
Air Quality	• The construction contractor shall comply with Caltrans' Standard Specifications Section 7-1.01F and Section 10 of Caltrans' Standard Specifications (1999). • Develop a dust control plan documenting sprinkling, temporary paving, speed limits, and expedited revegetation of disturbed slopes as needed to minimize construction impacts to existing communities.	Construction contractor	Construction
Noise	• Noise barriers for noise control. Abatement measures may include sound walls along west and east sides of State Route 99 and just south of Pelandale Avenue. • Implement Caltrans Standard Provision Section 5.1. • Implement Caltrans Standard Specifications, Section 7-1.01I, "Sound Control Requirements," • Limit Night Work to Extent Feasible. (Section 2.2.5)	Caltrans, construction contractor	Project design, construction
Biological Environment—Animal Species	• All trees that will be removed to make way for project construction will be removed during the non-nesting season (between October 1 and February 29). If this is not possible and project construction is to begin during the nesting season (March 1 to September 30), all trees and other suitable nesting habitat within the limits of work shall be surveyed by a qualified biologist prior to initiating construction-related activities (Section 2.3.1) • A preconstruction survey for burrowing owls shall be	Caltrans, construction contractor	Pre-construction, construction, and post-construction

Resource	Avoidance, Minimization, or Mitigation Measure	Responsible Party	Implementation during:
	conducted in accordance with California Department of Fish and Game's Staff Report on Burrowing Owls (CDFG 1995) (Section 2.3.1). • Replant slopes with native species. All constructed slopes and other graded areas resulting from project construction will be replanted. Replanting will be accomplished through hydroseeding with an approved Caltrans native species seed mix. (Section 2.3.1.)		

Technical Studies Bound Separately

- Air Quality Analysis
- Community Impact Assessment Checklist
- Final Traffic Operations Report
- Historical Property Survey Report
- Initial Site Assessment
- Natural Environment Study, Minimal Impact
- Noise Abatement Decision Report
- Noise Study Report
- Paleontology Identification Report
- Preliminary Drainage Report
- Preliminary Foundation Report
- Draft Project Report
- Relocation Impact Statement
- Storm Water Data Report
- Visual Impact Assessment
- Water Quality Memorandum