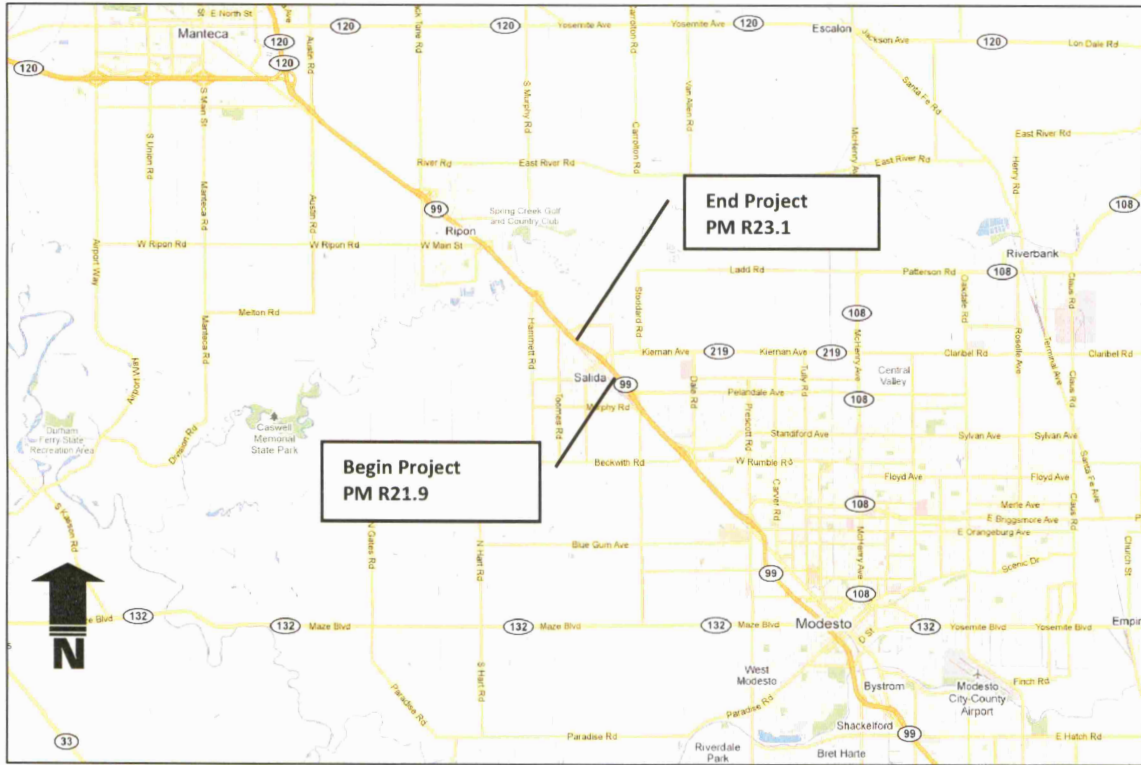


Project Report

Route 99/Route 219 (Kiernan Avenue) Interchange



On Route 99 and On Route 219 In Stanislaus County

From 0.8 miles south of Route 219 (Kiernan Avenue) to 0.4 miles north of Route 219 (Kiernan Avenue)

I have reviewed the right of way information contained in this Project Report and the R/W Data Sheet attached hereto, and find the data to be complete, current and accurate.

Spiros Karimbakas
 SPIROS KARIMBAKAS
 Central Region Division Chief, Right of Way

APPROVAL RECOMMENDED BY:

Christina Hibbard FOR C.H.
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 Project Manager

APPROVED BY:

Carrie L. Bowen 5/26/11
 CARRIE L. BOWEN
 District 10 Director Date

This **Project Report** has been prepared under the direction of the following registered Civil Engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.



BO GAO, P.E.
REGISTERED CIVIL ENGINEER



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1. INTRODUCTION

Stanislaus County, in cooperation with Caltrans District 10, proposes to reconstruct the Route 99/Route 219 (Kiernan Avenue) interchange in the community of Salida in Stanislaus County, including improvements to Route 219 from Route 99 to Sisk Road. This project will help to alleviate traffic congestion, improve operations and increase the capacity of the interchange. The area is experiencing increased growth which will yield higher traffic volumes on the existing facility.

The appropriate Project Development Category for this project is Category 3, because it will require modification of existing access control, reconstruction of the existing interchange and local roads, and acquisition of new right of way.

ALTERNATIVES

Three alternatives were considered in the PA&ED phase: two viable build alternatives and one no-build alternative. Build Alternative 1, which is a modified compact diamond (type L-1) interchange, is the Preferred Alternative and it is described below.

For Alternative 1, the existing compact diamond interchange will be modified and a new, wider bridge will replace the existing bridge over Route 99. Route 219 will be widened to eight lanes between Route 99 and Sisk Road. Approaches to Kiernan Avenue from Salida Boulevard and Sisk Road will be widened in order to conform to needed intersection improvements. The existing pump station on Route 99 will be slightly relocated, along with expansion of the storage sump for additional capacity.

Auxiliary lanes on Route 99 will be constructed from Kiernan Avenue to Pelandale Avenue. While these auxiliary lanes have already been environmentally cleared and approved by Caltrans under the Route 99/Pelandale Avenue Interchange Project (Project ID 10 0000 0440), they are also included in this Project. The Project would not require a revised freeway agreement, since there is no access modifications to or from Route 99.

The estimated costs in 2010 dollars for Alternative 1 are:

<u>Alternative 1 - Modified Compact Diamond (Type L-1) Interchange</u>	
Construction	\$40,806,000
Right of Way & Utility Cost	\$ 5,274,000
TOTAL	\$ 46,080,000

The project is anticipated to be funded by a combination of local and state funds. Stanislaus County has adopted and is already collecting traffic mitigation funds through the County Transportation Facilities Public Facility Fee (PFF) program. Stanislaus County has applied to and is waiting for approval from the California Transportation Commission for funding of the project with savings from the Route 99 Bond Fund in FY 2011-2012. This funding requires the project to be accelerated to start construction by 2012.

PREFERRED ALTERNATIVE

Alternative 1, which is a modified compact diamond (type L-1) interchange, is selected as the Preferred Alternative.

2. RECOMMENDATION

It is recommended that the project be approved using the Preferred Alternative and that the project proceed with Right of Way and PS&E phases.

The County of Stanislaus and the Stanislaus Council of Governments (StanCOG) have been consulted with respect to the Preferred Alternative, their views have been considered in its development and design, and the County and StanCOG are in accord with the plan as presented.

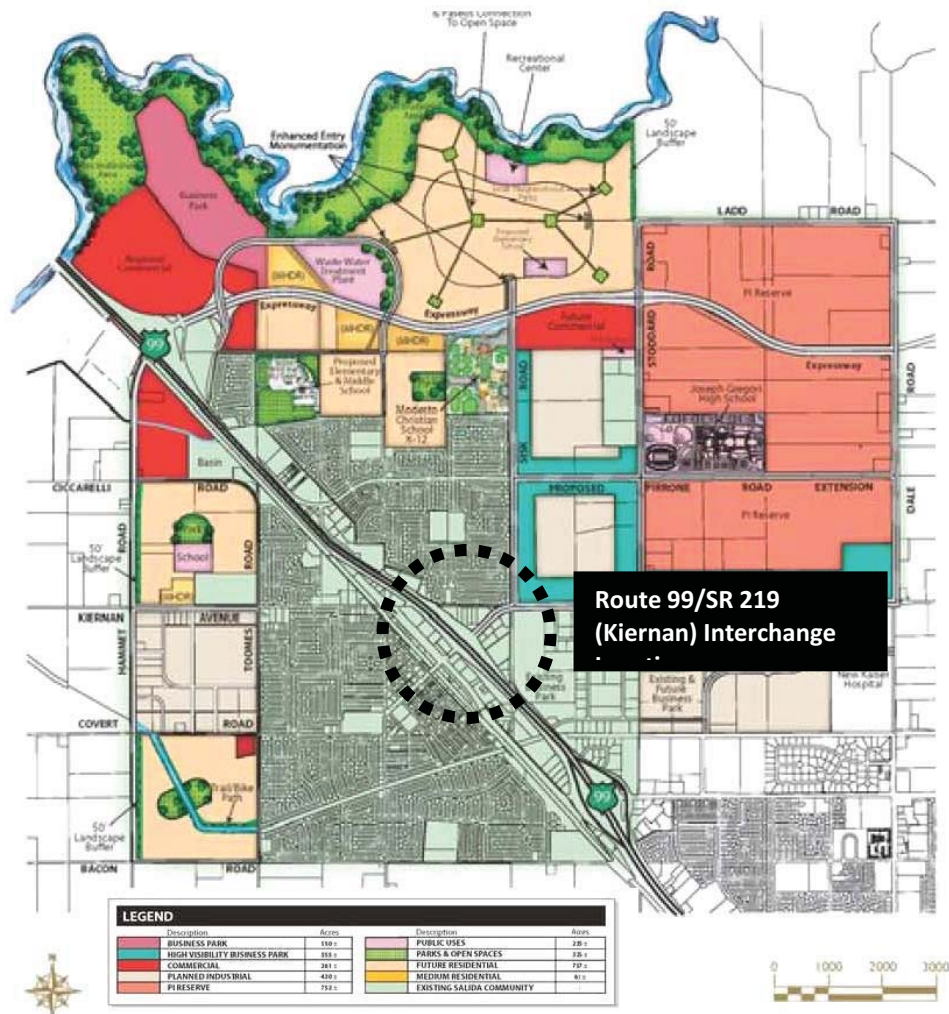
It is also recommended that a Cooperative Agreement covering the participation in the interchange modifications be negotiated and executed between Caltrans and the County of Stanislaus. Cooperative features include right of way acquisition by the County with Caltrans oversight, design and construction also to be completed by the County with oversight from Caltrans. Maintenance responsibility of the constructed improvements within State right-of-way would be by Caltrans. Maintenance outside the State right of way will be the subject of a separate Maintenance Agreement.

3. BACKGROUND

3A. PROJECT HISTORY

The Route 99/ Route 219 (Kiernan Avenue) interchange is located in the north part of Stanislaus County and on the northern edge, but outside of, the City of Modesto, providing access to commercial and residential properties in the Community of Salida. This area is undergoing commercial and residential development and has resulted in generating considerable traffic to the interchange. During peak traffic periods, the Route 99/Route 219 (Kiernan Avenue) interchange operates at a level of service E/F.

The Stanislaus County Board of Supervisors adopted the "Salida Now" initiative in August 2007 which provides infrastructure funding for industrial and commercial development. With a population of about 14,000, Salida is the largest town in unincorporated Stanislaus County. Salida's location along Route 99 at the far northern end of the county puts it within the long-distance commuting range of the Bay Area. The County is now underway with the adoption of the Salida Community Plan, which will define the growth parameters for the next 20 years of the Salida Area.



Due to projected housing and commercial growth in the Salida area, the existing interchange is not adequate to accommodate forecasted traffic. The proposed interchange improvements include widening of Route 219 (Kiernan Avenue) ramps to and from Route 99, as well as associated local road improvements at adjacent intersections. The proposed project consists of two components:

- 1) Reconstruction of the interchange at Route 99/Route 219 (Kiernan Avenue) and associated local roads at adjacent intersections; and,
- 2) Construction of auxiliary lanes in each direction on Route 99 between Kiernan Avenue and Pelandale Avenue.

The project development for the proposed improvements and related projects have been underway since 2006, with the following approved project documents:

PSR – June 2009 - EA 10-OL330K (Project ID 10 0000 0100)

In June 2009, a Project Study Report was approved by the District for programming the Route 99/SR 219 (Kiernan) Interchange Project.

PA/ED – December 2009 - EA 10-472100 (Project ID 10 0000 0440)

In December 2009, a Project Report for the Route 99 /Pelandale Interchange Project was approved by Caltrans. This project includes interchange reconstruction and construction of auxiliary lanes in both directions of Route 99 from Pelandale Avenue to Kiernan Avenue.

SHOPP Improvement Project (Project ID 10 0000 0091)

In September 2010, Caltrans started minor improvements at the interchange ramps to provide temporary traffic congestion relief. The minor improvements consist of ramp re-striping and signal modifications. These improvements are accounted for in the No Build analysis and will be removed with construction of the Proposed Project. This project was completed in 2010.

3B. COMMUNITY INTERACTION

Initial public meetings were held in November 2004 to present the scope of interchange improvements. Broad community support has been received for the interchange modification. No known opposition exists.

Another public information meeting was held in November 2009. The purpose of the public information meeting was to give members of the public and interested parties an opportunity to review the design concepts for each alternative, project information, and environmental process displays and to provide comments or concerns.

Caltrans, in cooperation with Stanislaus County, held a Public Hearing on Monday, December 6, 2010, at the Nick W. Blom Salida Regional Library, 4835 Sisk Road, Salida, California 95368. Seventy-eight people signed in at the door. The Public Hearing was conducted as an open house - presentation - questions and comments. This interactive format provided an opportunity for members of the public to review maps and other exhibits, hear an overview of the project by the consultant team's project manager, and ask questions or make comments after the presentation. Attendees were encouraged to submit their written comments at a comments station. Attendees could also dictate their comments to

a court reporter. Information stations with project maps, graphics, and exhibits were placed around the room. The information stations provided information on alternatives, traffic, environmental issues, and right-of-way. Project team members were available at each station to explain the displays, answer questions, and hear comments.

3C. EXISTING FACILITIES

Route 99 is a major freeway in California, acting as an alternate route to Interstate 5 from south of Bakersfield to Red Bluff, serving almost all of the urbanized areas in the Central Valley. Within Stanislaus County, it is the major north-south transportation corridor and is the major interregional connector to the San Francisco Bay Area. Route 99 is a six-lane controlled access freeway through northern Stanislaus and southern San Joaquin Counties. The existing median is 46 feet wide, the traveled way lanes are 12 feet wide, the left shoulders are 5 feet wide and the right shoulders are 10 feet wide within the Project area. The design speed on Route 99 is 65 miles per hour. The storm runoff from Route 99/Route 219 (Kiernan Avenue) interchange areas are discharged to an existing sump at the sag points of Route 99 under the Kiernan Avenue bridge and are lifted via pump station to the main freeway drainage pipe system to the Stanislaus river outfall.

Route 219 (Kiernan Avenue) is an east-west conventional highway connecting Routes 99 and 108. Route 219 skirts the northern edge of the City of Modesto and serves as a bypass to heavily congested streets within the city. Stanislaus County, and the Salida area in particular, is experiencing rapid residential, commercial and industrial growth adjacent to both Routes 99 and 219. West of Route 99, Kiernan Avenue becomes Broadway, a local street that runs southwest through the traditional commercial center of Salida. The intersections at Kiernan Avenue/Sisk Road and Broadway/Salida Boulevard are currently signalized and include left turn pockets. The design speed on Kiernan Avenue is 45 mph.

Broadway Avenue is the western extension of Kiernan Avenue past Salida Boulevard. It is an urban roadway fronted by local businesses. The street consists of one travel lane in each direction, a median lane and diagonal parking.

Route 99/Route 219 (Kiernan Avenue) Interchange is an existing compact diamond interchange. It allows access to Route 99 from Route 219 (Kiernan Avenue) to the east, and from Broadway Avenue to the west. All ramps at the Route 99/Route 219 (Kiernan Avenue) interchange are single lane ramps. The existing ramp intersections on Kiernan Avenue are signalized.

Sisk Road is a local collector street that runs from a terminus roughly ½ mile south of the Modesto Irrigation District main canal across Kiernan Avenue and Pelandale Road to North Carpenter Road in Modesto. The design speed on Sisk Road is 35 mph.

Salida Boulevard is a four-lane divided arterial roadway that runs parallel to Route 99 and connects West Kiernan Avenue to Pelandale Avenue. The Union Pacific Railroad tracks are parallel to Route 99 and Salida Boulevard and lie just west of Salida Boulevard. Access from the west to Salida Boulevard and the Kiernan Interchange is limited to at-grade crossings near Murphy Road (south of Pelandale), Broadway and West Kiernan Avenue.

4. PURPOSE AND NEED

4A. PROBLEM, DEFICIENCIES, JUSTIFICATION

The area around the Route 99/Route 219 (Kiernan Avenue) Interchange is experiencing increased growth in residential and commercial land uses. The existing interchange will be unable to adequately accommodate the forecast traffic demand. The existing off-ramp storage is inadequate to prevent long queues and congestion from backups onto Route 99.

Modifications are needed at the Route 99/Route 219 (Kiernan Avenue) Interchange to improve operations to and from Route 99. Off-ramp storage lengths needs to be increased to accommodate forecasted traffic volumes, thus preventing long queues and congestion from backing up onto the through lanes of Route 99. The Route 219 (Kiernan Avenue) bridge needs to be replaced to provide a standard vertical clearance of at least 16.5 ft. over Route 99.

Northbound and southbound auxiliary lanes on Route 99 between Kiernan Avenue and Pelandale Avenue interchanges are needed due to the non-standard interchange spacing and to improve merge and diverge characteristics for the on and off ramps. The auxiliary lanes are needed to also provide additional storage for off ramp queues to minimize traffic obstructions on Route 99 through lanes.

- **PURPOSE**

The purposes of the project are:

- To meet existing and long-term (2035) traffic level of service standards at the interchange.
- To improve traffic operations, reduce traffic congestion and reduce delay at the Route 99/Route 219 (Kiernan Avenue) interchange.

- **NEED**

The following “need” statements correspond to the project purpose:

- 1) **Existing and Projected Traffic Level of Service Standards:**

The Salida Community is expected to experience a large amount of residential and commercial growth in the coming years as it grows from development projects consistent with the Salida County General Plan. As a result of this local growth, combined with expected regional growth, total future demand volumes on Kiernan Avenue Interchange ramps are projected to increase by about 1,000 vehicles in both the AM and PM peak hours by 2035, when compared to existing volumes. Growth will not only increase traffic congestion and delay, but also cause indirect consequences such as inefficient energy use and deteriorating air quality. By 2015, the traffic analysis shows that, without improvement to the existing interchange, all intersections within the study area are expected to operate at Level of Service F. Additionally, vehicle queues at the ramp terminal intersections will spill back onto Route 99 in both

directions. Traffic operations will continue to decline beyond 2015, if no changes to the circulation system occur. The project is needed to create additional interchange capacity to accommodate growth forecasts and traffic projections.

2) Improve Traffic Operations:

The traffic analysis prepared for the project identified that the SR-219 (Kiernan Avenue)/Sisk Road intersection (located northeast of the interchange) currently operates at Level of Service E in the PM peak hour. Additionally, the northbound State Route 99 off-ramp to Route 219 (Kiernan Avenue) operates at Level of Service F. The project is needed to improve the existing LOS to acceptable levels.

The delays in the peak travel directions under existing conditions stem from regional growth in the County and on Route 99. For the Kiernan Avenue interchange, this has led to periods of high traffic volumes and deterioration in peak hour traffic operations, including vehicle queuing that extends across multiple intersections. Vehicle queue spillback to adjacent intersections occurs at the Route 99 southbound ramps/Kiernan Ave, Route 99 northbound ramps/Kiernan Avenue, and the Kiernan Ave/Sisk Road intersections under existing conditions. The project is needed to reduce delay time and congestion, thus improving or eliminating spillback conditions.

The Level of Service (LOS) at the weaving section between Pelandale Avenue and Kiernan Avenue interchanges is less than the standard of LOS D for both directions. The LOS of this weaving section contributes to adverse overall levels of service at the interchanges. The auxiliary lanes between the interchanges will improve the traffic weaving operations by separating out weaving traffic from mainline traffic.

• CURRENT DEFICIENCIES

Traffic congestion on Kiernan Avenue and Route 99 occurs as a result of the short intersection spacing on Kiernan Avenue and inadequate capacity to accommodate the heavy turn movements to and from Route 99 during peak periods. Traffic congestion currently occurs during peak hours and will continue to escalate with future growth. The area is experiencing increased growth which will yield higher traffic volumes on the existing facility in the near future.

Existing nonstandard features within the project limits include the following:

- On mainline Route 99:
 - Nonstandard interchange spacing between Pelandale Avenue and Kiernan Avenue Interchanges.
 - Nonstandard vertical clearance at the SR 219 (Kiernan Avenue) bridge.

- At local intersections:
 - Nonstandard number of curb ramps at ramp intersections.
 - Nonstandard local intersection to ramp intersection spacing at Kiernan Avenue and Salida Boulevard.

4B. REGIONAL AND SYSTEM PLANNING

- IDENTIFY SYSTEMS

State Route 99 is the principal north/south highway traversing the major cities within California's Central Valley. It is a High Emphasis/Focus Route in the Interregional Road System, making it a high priority for improvement for the Interregional Transportation Strategic Plan (ITSP). This route provides primary access for the movement of people, goods, and services and is considered the main transportation route for agricultural products.

State Route 219 (Kiernan Avenue) begins at Route 99 in the community of Salida in Stanislaus County, and ends 4.9 miles east at Route 108. SR 219 is currently being widened to four lanes under Caltrans Project EA 10-0A8701 (Project ID 10 0000 0012).

Broadway Avenue is the western extension of Kiernan Avenue past Salida Boulevard. It is a two lane urban roadway fronted by local businesses and on street parking. The cross section includes one travel lane in each direction, diagonal parking and median lane.

Sisk Road is a local collector street that runs from a terminus approximately 0.5 mile south of the Modesto Irrigation District main canal across Kiernan Avenue and Pelandale Road to North Carpenter Road in Modesto.

Salida Boulevard is a four-lane divided arterial roadway that runs parallel to Route 99 and connects West Kiernan Avenue to Pelandale Avenue.

- STATE PLANNING

Route 99 is a primary route for movement of freight and goods. This route is on the National Network for STAA Trucks, with portions of Route 99 designated as a SHELL route for transporting "Permitted" over dimensional load. Between Bakersfield and Sacramento this route is identified as an Intermodal Corridor of Economic Significance (ICES) as mandated by Assembly Bill 1823, Statutes of 1993.

Route 219 is in the Federal Aid Secondary (FAS) System but is not part of the Freeway and Expressway System. It is not part of the Inter-Regional Road System (IRRS) nor the National Highway System (NHS). Route 219 is functionally classified as a Major Collector. It is not in the State Highway Extra Legal Load (SHELL) Route System. It is a commute route and serves as a connector between Routes 99 and 108, with the majority of the commuter traffic as a result of the rapid growth of the cities of Modesto, Riverbank and Oakdale.

• REGIONAL AND LOCAL PLANNING

The project is contained in the 2011 Regional Transportation Plan as a “Tier 1” project. Additional related projects include the Route 99/Pelandale Interchange, the North County Expressway, the Route 99/Hammett Road interchange and Route 219 Widening. Project listings and identification numbers in the 2011 RTP are as follows in **Table 1**:

TABLE 1 2011 RTP PROJECTS						
	Location	Project Limits	Description	Total Cost	Construct . Year	Funding Source
Stanislaus Council of Governments						
ST06	SR-99	Carpenter Rd to San Joaquin County Line	Widen 6 to 8 lanes	\$124,277,700	2027	STIP, IIP, Tax Measure
Stanislaus County						
SC01	SR-99	SR-99 & Kiernan Ave (SR-219)	Interchange Replacement	\$66,150,500	2015	STIP, PFF
SC02	SR-99	SR-99 & Hammett Rd	Interchange Replacement	\$95,524,200	2015	STIP, PFF
SC03	North County Corridor	SR-99 to SR-120/108	Construct 2-6 Lane Expressway	\$553,693,600	2020	STIP, IIP, PFF, Tax Measure, Demo
SC26	Kiernan Ave (SR 219)	Phase II: Dale Rd to McHenry Ave	Widen to 4-lane Expressway	\$46,987,300	2012	STIP
City of Modesto						
M01	SR-99	SR-99 & Pelandale Interchange	Reconstruct to 8-lane Interchange	\$69,092,800	2014	STIP, RSTP, CFF

Planned and programmed projects within one mile of SR-99/SR-219 on SR-99 are shown on the following **Table 2**:

TABLE 2 PLANNED AND PROGRAMMED PROJECTS IN THE VICINITY					
STATUS	EA (Project ID)	Post Mile	Location	Description	Begin Construction
Programmed / Funded / Partially Funded	0K700 (10 0000 0091)	00.10 (SR 219)	SR-99/SR-219	Reconstruct NB/SB off-ramps, relocate maintenance vehicle pullout/modify signals	Construction Completed in 2010
Programmed / Partially Funded	10-472100 (10 0000 0440)	PM 58.4/59.3 (SR 99)	SR-99/Pelandale Ave.	Reconstruct SR-99/Pelandale Ave. Interchange	2012
Planned	Not Assigned	TBD	SR-219/SR-99 (close proximity)	Park and Ride Facility**	TBD
Planned	Not Assigned	00.10/04.90 (SR 219)	SR-99 to SR-108	Widen SR-219 to six lanes	2025
Programmed / Funded / Partially Funded	0A870 (10 0000 0012)	00.10/02.90 (SR 219)	SR-219 from SR-99 to Morrow Lane	CMIA Project 4-Lane Widening, Phase I	Construction Completed in 2010
Programmed / Funded / Partially Funded	10-0M800 (10 0000 00xx)	20.1/25.1 (SR 99)	SR 99	Crack seat and overlay, PCC slab replacement, and PCC lane replacement	2012
Planned	Not Assigned	00.35/04.90	SR-219 from Sisk Road to SR-108	Class I Bike Facility*	TBD
Planned	Not Assigned	00.35	Sisk Road from Pirrone Road to Pelandale Avenue	Widen 2 to 4 lanes	2015
Planned	Not Assigned	00.85	Stoddard Road from Kiernan Avenue to Ladd Road	Widen 2 to 4 lanes	2015
Planned	Not Assigned	TBD	MJC Connector from SR-219 to TRRP	Class I Bike Facility*	TBD

- **TRANSIT OPERATOR PLANNING**

The Preferred Alternative of this project will provide HOV bypasses at entrance ramps to Route 99. No specific coordination with transit operators has been provided during the project development phase. This coordination will occur during PS&E phase.

- **UNION PACIFIC RAILROAD**

The **Union Pacific Railroad** traverses north-south through the area, crossing Broadway Avenue just west of Salida Boulevard. The average number of trains per day is 19. The County of Stanislaus is planning an improvement project to add sidewalks and two lanes in each direction for the crossing of the UPRR. This work is expected to be completed in 2012/2013, prior to the construction of improvements at Route 99/Route 219 (Kiernan Avenue) interchange. No railroad grade separation is planned by either the County or the UPRR at this location.

- **NORTH COUNTY CORRIDOR (NCC) PROJECT**

The North County Corridor (NCC) Project (EA 10-0S800 Project ID 10 0000 0263) is a planned project which would provide approximately 24 miles of roadway on new alignment to provide interregional connectivity from Route 99 easterly to approximately 7.7 miles east of the Route 120 /Route 108 junction. It is anticipated that the ultimate facility type would be a four to eight lane controlled access highway, Category 1 project. The preliminary study limits are defined as starting at the Route 99 on the west and ending east of the City of Oakdale. The proposed North County Corridor project is being developed as a replacement for the Route 108/120 Oakdale Bypass project. The CTC has funded NCC environmental studies in the STIP.

For the purpose of the Route 99/Route 219 (Kiernan Avenue) interchange project alternatives, the NCC considered a local road project. It is assumed that the only modification along Route 99 would be either the Route 99/Hammett Road interchange, or the Route 99/Kiernan Avenue interchange and local road modifications. An NCC local road connection to the Route 99 at either Hammett Road or Kiernan Avenue would continue to meet standard interchange spacing requirements.

4C. TRAFFIC

- **TRAFFIC FORECASTS**

The original traffic demand forecasts were approved by Caltrans in August 2009. A technical memorandum was prepared and approved by Caltrans in April 2010 to update the original analysis to account for the proposed changes to the Tier 1 project list in the 2011 update of the StanCOG Regional Transportation Plan (RTP). The following two proposed projects were added in the 2007 RTP and directly affect forecasts at the Route 99/Hammett Road and Route 99/Kiernan Avenue interchanges:

- 6-lane extension of Hammett Road from Route 99 to Dale Road (also known as the Salida Expressway.)

-
- 4-lane expressway connecting Salida Expressway to the North County Corridor (NCC) between Dale Road and McHenry Avenue.

The southern part of the study area includes the Route 99/Pelandale Avenue interchange. Traffic forecasts for the Route 99/Pelandale Avenue interchange were taken from the *Route 99/Pelandale Avenue Interchange Improvement Project Final Traffic Operations Report* (Fehr & Peers, November 2008) to maintain consistency with this recent study.

The demand forecasts exceed the capacity on the majority of Route 99 mainline segments. For the purposes of mainline and ramp junction operational analysis, these volumes were constrained using the following capacities:

- **Route 99 Mainline** – 2,000 passenger cars per hour per lane
- **On-ramps when Route 99 Mainline is over capacity** – 1,000 passenger cars per hour

In both the northbound and southbound directions, a bottleneck occurs at the Stanislaus/San Joaquin County line between the 2nd Street and Hammett Road interchanges. This location becomes a choke point for vehicles trying to cross the Stanislaus River because there are very few alternative routes.

The primary difference between these forecasts and those presented in the August 12, 2009 memo is that, with the extension of additional mainline capacity through the study area, fewer vehicles divert off the freeway at Hammett Road or Kiernan Avenue to avoid congestion. The southbound off-ramp and northbound on-ramp at Hammett Road and the southbound on-ramp and northbound off-ramp at Kiernan Avenue have lower volumes than in the original forecasts. On the other hand, the southbound on-ramp and northbound off-ramp at Hammett Road and southbound off-ramp and northbound on-ramp at Kiernan Avenue have higher volumes, as more vehicles make use of the added mainline capacity.

Volumes on Route 99 are also projected to increase. A comparison of the existing counts to the forecasts shows that the mainline volumes are projected to increase by about 2.1-3.2% per year. This lower rate of growth is directly related to the fact that no additional mainline capacity could be assumed north of the Stanislaus County line because these improvements are not yet funded, and this capacity limitation affects the amount of traffic that can be accommodated on the freeway mainline through the study area.

In response to Caltrans' request comparing the peak hour demand volumes to a Design Hourly Volume of 9.1% of the daily volumes, the percent of daily traffic represented by the peak hour demand forecasts was calculated and presented in **Table 3**. The forecasted peak hour demand volumes account for more than 11% of the average daily traffic within the overall study corridor. Peak hour mainline volumes are generally 11-12% of the daily volumes. Peak hour volumes on the ramps are about 6.2-8.2% of the daily volumes. This is greater than the existing peak hour percentages at the Route 99/Kiernan Avenue ramps, which currently experience congestion during the peak hours.

TABLE 3 2035 AVERAGE DAILY TRAFFIC AND 2035 PEAK HOUR DEMAND VOLUME			
Location	Average Daily Traffic	Peak Hour Demand¹	% ADT
Mainline Segments			
Route 99 SB (North of 2nd Street)	78,540	9,090	11.6%
Route 99 SB (2nd Street to Hammett)	93,400	10,280	11.0%
Route 99 SB (Hammett to Kiernan)	76,690	9,000	11.7%
Route 99 SB (Kiernan to Pelandale)	78,940	9,580	12.1%
Route 99 SB (South of Pelandale)	80,490	9,260	11.5%
Route 99 NB (South of Pelandale)	87,270	10,130	11.6%
Route 99 NB (Pelandale to Kiernan)	86,420	10,460	12.1%
Route 99 NB (Kiernan to Hammett)	77,400	9,420	12.2%
Route 99 NB (Hammett to 2nd Street)	93,170	10,540	11.3%
Route 99 NB (North of 2nd Street)	78,490	9,480	12.1%
Project Ramps			
Hammett Road / Route 99 SB Ramps	30,290	2,480	8.2%
Hammett Road / Route 99 NB Ramps	28,110	2,220	7.9%
Kiernan Avenue / Route 99 SB Ramps	21,290	1,740	8.2%
Kiernan Avenue / Route 99 NB Ramps	32,240	2,000	6.2%
Total Study Corridor	942,740	105,680	11.2%
<i>Note: 1. PM peak hour demand volume presented for southbound direction; AM peak hour demand volume presented for northbound direction. Source: Fehr & Peers, February 2010.</i>			

Attachment B provides the approved Existing, 2035 AM and 2035 PM Peak Hour Traffic Volumes.

- **ACCIDENT HISTORY**

Caltrans provided accident data for Route 99 through the study corridor and the interchange as shown in **Table 4**. This data shows that a total of 154 accidents were reported on the mainline during the three-year period from April 1, 2006 to March 31, 2009. The accident rates are expressed in number of accidents per million vehicle miles (mvm) for main line and million vehicles (mv) for intersections and ramps.

**TABLE 4
ACCIDENT HISTORY**

Facility	Number of Accidents			Accident Rate (accidents/mvm or mv)					
	Total	Fatal	Fatal + Injury	Actual			State Average		
				Total	Fatality	Fatal + Injury	Total	Fatality	Fatal + Injury
Route 99 (PM R21.96 to R23.119)	154	0	45	1.07	0.000	0.31	0.88	0.009	0.28
NB Off-Ramp to Broadway/SR 219	10	0	2	1.73	0.00	0.35	1.00	0.002	0.31
SB On-Ramp From Broadway/SR 219	2	0	0	0.35	0.00	0.00	0.60	0.001	0.19
NB On-Ramp From Broadway/SR 219	2	0	0	0.29	0.00	0.00	0.60	0.001	0.19
SB Off-Ramp To Broadway/SR 219	7	0	1	1.13	0.00	0.16	1.00	0.002	0.31
SR219/Sisk Road	34	0	10	1.13	0.00	0.33	0.55	0.002	0.19

Note: Shading denotes locations that exceed the statewide average.

Source: Caltrans District 10 TASAS data between 04/01/2006 and 03/31/2009 for Route 99 mainline and ramps.

Caltrans District 10 TASAS data between 04/01/2006 and 03/31/2009 for SR 219.

The total accident rates within the project area on Route 99 mainline, northbound off ramp, southbound off ramp, and Kiernan Avenue/Sisk Road intersection are higher than the statewide average for similar facilities. The construction of auxiliary lanes will improve the merge/diverge movements for exit and entering traffic by creating a weaving section between Kiernan and Pelandale interchanges. The Kiernan Avenue/Sisk Road intersection will be widened to provide more capacity for future traffic demand. This will reduce congestion and provide better traffic flow at the Kiernan Avenue/Sisk Road intersection.

5. ALTERNATIVES

A. VIABLE ALTERNATIVES

There were two viable alternatives evaluated in the PA&ED phase. **Build Alternative 1** is a compact Type L-1 diamond interchange and **Build Alternative 2** is a Hybrid Type L-1 and L-6 Interchange.

BUILD ALTERNATIVE 1 is a Compact Diamond (Type L-1) Interchange Replacement. The existing compact diamond interchange will be modified and a new, wider bridge will replace the existing bridge over Route 99. Alternative 1 will include widening of Kiernan Avenue, ramp intersections, adjacent local road intersections, and construction of auxiliary lanes on Route 99 from Kiernan Avenue to Pelandale Avenue in both directions.

The intersection of Kiernan Avenue and Salida Boulevard will have two southbound left turn lanes, two southbound through lanes and a southbound right lane. The eastbound direction will have one left turn lane and three through lanes. The northbound direction will have one left turn pocket, two through lanes and a right turn lane. Westbound traffic will have a left turn pocket, two through lanes and one right turn lane. The intersection of Kiernan Avenue and Sisk Road will be improved to provide one southbound left turn pocket, two southbound through lanes, and one southbound free right turn lane. The eastbound direction will have three left turn lanes and three through lanes. The northbound direction will have two left turn pocket, two through lanes, and a right turn lane. The westbound direction will have a left turn pocket, three through lanes and a right turn lane.

The Route 99 northbound on and off ramp intersection with Kiernan Avenue will have an eastbound left turn pocket to the on-ramp from Kiernan Avenue and three eastbound through lanes. The Kiernan westbound direction will have one free right turn lane to the on-ramp and four through lanes. The northbound off ramp will have one shared left turn/through lane and two right turn lanes. The Route 99 southbound on and off ramp intersection will have four eastbound through lane and one right turn lane. The westbound direction allows two left turn lanes to Route 99 southbound and two through lanes. The southbound off ramp provides two left turns and a through-right lane.

Route 99 between Kiernan Avenue interchange and Pelandale interchange will be widened to add an auxiliary lane in both the northbound and southbound directions. The northbound off-ramp will be a two-lane exit widening to three lanes prior to the Kiernan Avenue intersection, to provide a single left and double right turn lanes. The northbound entrance ramp will be widened to two lanes with provisions for ramp metering and an HOV bypass. The southbound exit ramp will be a single lane exit and then widened to three lanes with a double left and single shared right turn/through lane at the Kiernan Avenue intersection. The southbound on-ramp will be widened to two mixed flow lanes with an HOV bypass and provisions for ramp metering.

Existing traffic signals will be replaced with new signals at the Route 99 off and on ramp intersections, Kiernan/Salida intersection, and Kiernan/Sisk intersection. Roadway lighting will be provided on Kiernan Avenue at the on and off ramps and intersections. Sound walls will be constructed along the northbound off ramp and existing sound walls will be reconstructed along new right of lines near Kieran/Sisk Intersection. Utility relocations will be required to accommodate the widening of Kiernan Avenue. Retaining walls will be required for the northbound on ramp and parts of Kiernan Avenue widening.

Alternative 1 will add new storm water basins and modify one existing basin. The new basins will be along Kiernan Avenue, one next to the NB on ramp and one by the intersection of Kiernan Avenue and Kiernan Court. The existing basin on Kiernan Avenue and Sisk Road intersection will be modified to increase capacity. The basins along Kiernan Avenue will capture additional runoff from the widening of Kiernan Avenue. The existing Route 99 pump station will be removed and replaced with a new pump station next to the Route 99 northbound on ramp. The existing sump for the pump station will be modified to increase capacity. No increase in outfall flow rate will occur to the box culvert that transmits drainage flows to the Stanislaus River.

The existing Kiernan Avenue Interchange will remain open during the construction. Route 99 lane width between the Kiernan Interchange and Pelandale Interchange will be reduced and the shoulder will be temporarily closed during the construction of the auxiliary lanes. Kiernan Avenue, Salida Boulevard, and Sisk Road will remain open, but lane widths will be temporarily reduced during construction.

The Kiernan Avenue bridge over Route 99 will be replaced with a new wider bridge. The proposed structure will be a CIP/PS concrete box girder, which will be 204'-0" long and 138'-0" wide, with two spans. Sidewalk with chain link fence will be provided on both sides of the bridge. The bridge structure will be supported on seat type abutments at two ends. Bent 3 at north side of the bridge will be supported on outrigger bent cap to avoid the conflict with the existing underground pump station box-culvert. Two stages of construction are required.

There is an existing irrigation well located within the project are on the west side of the SB off-ramp. This project will remove (abandon) the well and will be relocated within the State right of way.

Estimated costs in current dollars for Alternative 1 are:

Alternative 1 - Modified Compact Diamond (Type L-1) Interchange

Construction	Roadway	\$28,407,000
	<u>Structures</u>	<u>\$15,399,000</u>
	Subtotal	\$40,806,000
<u>Right of Way</u>		<u>\$ 5,274,000</u>
TOTAL		\$ 46,080,000

Design exceptions for Alternative 1 are as follows:

Advisory

A1. Curb Ramps

Standard: On new construction, two ramps should be installed at each corner per Index 105.4(2).

Proposed: Only one curb ramp is proposed at corners where there is pedestrian crosswalk one direction only.

Advisory

A2. Traffic Weaving

Standard: Weaving sections in urban areas should be designed for LOS C or D per Index 504.7.

Proposed: The Level of Service (LOS) of the weaving section between Pelandale Avenue and Kiernan Avenue Interchanges on Route 99 is predicted to be F in both directions within the design year.

Standard: On main freeway lanes, the weaving length measured as shown in Figure 504.2A should not be less than 1600 feet except where excessive cost or severe environmental constraints per Index 504.7.

Proposed: Weaving length between the Kiernan Avenue on ramp and the Pelandale Avenue off ramp will be approximately 1,300 ft in the southbound direction of Route 99. Weaving length between the Pelandale Avenue on ramp and the Kiernan Avenue off ramp will be approximately 1,950 ft in the northbound direction of Route 99.

Mandatory

M1. Intersection Spacing

Standard: Highway Design Manual, 6th Edition, Index 504.3(3) states that “For new construction or major reconstruction of interchanges, the minimum distance (curb return to curb return) between ramp intersections and local road intersections shall be 400 feet.”

Proposed: Spacing between SB ramps and Salida Boulevard intersections on Kiernan Avenue is 207 feet. This is a preexisting condition.

M2. Interchange Spacing

Standard: Highway Design Manual, 6th Edition, Index 501.3 states that “The minimum interchange spacing shall be one mile in urban areas.”

Proposed: The interchange spacing between Pelandale Avenue and Kiernan Avenue interchanges is 0.80 mile. This is a preexisting condition.

The Advisory Design Exceptions for Alternative 1 were approved on September 28, 2010. The Mandatory Design exceptions for Alternative 1 were approved by Headquarters Design on September 29, 2010.

Alternative 1 has less right of way impact, lower construction cost, shorter construction period and better driver perception (same ramp configuration as today) than Alternative 2, and therefore was selected as the Preferred Alternative by the PDT.

Attachment C provides the proposed layouts, sections and profiles and bridge advance planning studies for Alternative 1.

BUILD ALTERNATIVE 2 is a Hybrid (Type L-1 and L-6) interchange. The northbound Route 99 ramp intersection with Kiernan Avenue would remain at the same location as Alternative 1, while the southbound off and on-ramps on Route 99 will be moved from Kiernan Avenue to Salida Boulevard, with the southbound Route 99 on-ramp intersection on the north side of Kiernan Avenue and the southbound Route 99 off-ramp intersection on the south side of Kiernan Avenue. The existing bridge would be replaced with a wider and longer bridge. A new bridge on the southbound on ramp would be built to allow the southbound off-ramp to cross under. Alternative 2 would include widening of Kiernan Avenue, ramp intersections, adjacent local road intersections, and construction of auxiliary lanes on Route 99 from Kiernan Avenue to Pelandale Avenue for both directions.

Alternative 2 has more right of way impact, greater construction cost, longer construction period than Alternative 1, and was therefore not selected by the PDT.

NO BUILD ALTERNATIVE

The No Build Alternative would leave the freeway and interchange in their current configuration. No auxiliary lane improvements would be made, no ramp and interchange improvements would be constructed or modified and no sound walls would be modified or constructed. It is anticipated that congestion will continue to increase significantly if the project is not built. Based on the traffic studies, in the design year under the no build condition the most traffic movements will operate at LOS 'F' at this interchange. The PDT determined that the No Build Alternative was not viable.

- **TRAFFIC OPERATIONS**

Year 2035 traffic forecasts were developed using the StanCOG Travel Demand Model. As a result of projected growth, traffic volumes on the Kiernan Avenue ramps are projected to increase by about 1,500 vehicles in the AM and PM peak hours, compared to existing volumes. This translates into an average growth rate of about 1.7 percent per year. Volumes on SR 99 are projected to increase by 2.1 to 3.2 percent per year.

Year 2035 Mainline Operations

Table 5 summarizes the Year 2035 mainline and ramp analysis results. While SR 99 is planned to be widened to four lanes in each direction by 2035, widening of the bridge across the Stanislaus River is not planned, and creates a choke point for vehicles traveling between Stanislaus and San Joaquin Counties. This creates upstream queuing that extends through the project area, as shown in **Table 5**.

Segment Location	Peak Hour	No Build		Alternative 1		Alternative 2	
		Density ¹	LOS	Density ¹	LOS	Density ¹	LOS
SR 99 NB South of Pelandale Avenue	AM	In Queue	F	In Queue	F	In Queue	F
	PM	In Queue	F	In Queue	F	In Queue	F
SR 99 NB between Pelandale Avenue and Kiernan Avenue	AM	In Queue	F	In Queue	F	In Queue	F
	PM	In Queue	F	In Queue	F	In Queue	F
SR 99 NB between Kiernan Avenue and Hammett Road	AM	In Queue	F	In Queue	F	In Queue	F
	PM	In Queue	F	In Queue	F	In Queue	F
SR 99 NB north of Hammett Road	AM	Bottleneck	E	Bottleneck	E	Bottleneck	E
	PM	Bottleneck	E	Bottleneck	E	Bottleneck	E
SR 99 SB north of Hammett Road	AM	Bottleneck	E	Bottleneck	E	Bottleneck	E
	PM	Bottleneck	E	Bottleneck	E	Bottleneck	E
SR 99 SB between Hammett Road and Kiernan Avenue	AM	In Queue	F	20	C	20	C
	PM	In Queue	F	21	C	21	C
SR 99 SB between Kiernan Avenue and Pelandale Avenue	AM	20	C	Weave	B	Weave	B
	PM	24	C	Weave	D	Weave	D
SR 99 SB South of Pelandale Avenue	AM	23	C	23	C	23	C
	PM	25	C	25	C	25	C
SR 99 NB Off-Ramp to Kiernan Avenue	AM	In Queue	F	In Queue	F	In Queue	F
	PM	In Queue	F	In Queue	F	In Queue	F
SR 99 NB On-Ramp from Kiernan Avenue	AM	In Queue	F	In Queue	F	In Queue	F
	PM	In Queue	F	In Queue	F	In Queue	F
SR 99 SB Off-Ramp to Kiernan Avenue	AM	In Queue	F	25	C	25	C
	PM	In Queue	F	26	C	26	C
SR 99 SB On-Ramp from Kiernan Avenue	AM	25	C	Weave	B	Weave	B
	PM	30	D	Weave	D	Weave	D

1. Density is in passenger cars per mile per lane. Source: Fehr & Peers, 2010.

Mainline and ramp operations are similar with the No Build and Build Alternatives; however, both Build Alternatives improve intersection operations at the southbound off-ramp to Kiernan Avenue which in turn eliminates queue spillback to southbound Route 99.

Year 2035 No Project Intersection Operations

Table 6 summarizes the Year 2035 No Project analysis results. As shown, all signalized study intersections will operate at LOS F during both peak hours.

TABLE 6 DESIGN YEAR (2035) NO PROJECT INTERSECTION ANALYSIS				
Intersection	Traffic Control	Peak Hour	No Build	
			Control Delay	LOS
1. Salida Boulevard / Kiernan Avenue	Signal ¹	AM	>100	F
		PM	>100	F
2. SR 99 Southbound Ramps / Kiernan Avenue	Signal ¹	AM	>100	F
		PM	63	E
3. SR 99 Northbound Ramps / Kiernan Avenue	Signal ¹	AM	>100	F
		PM	98	F
4. Indian Ridge Lane / Kiernan Avenue	SSSC ²	AM	12 (>100)	B (F)
		PM	6 (21)	A (C)
5. Kiernan Court / Kiernan Avenue	SSSC ²	AM	6 (84)	A (F)
		PM	63 (>100)	F (F)
6. Sisk Road / Kiernan Avenue	Signal ¹	AM	73	E
		PM	>100	F

Notes: Results based on SimTraffic simulation of 10 runs.
 1. Signalized intersection level of service based on weighted average control delay per vehicle, according to the *2000 Highway Capacity Manual*.
 2. Side-street stop intersection level of service based on weighted average control delay per vehicle and worst approach control delay per vehicle, according to the *2000 Highway Capacity Manual* in the notation: average (worst approach).
 Source: Fehr & Peers, 2010.

Year 2035 With Project Intersection Operations

Year 2035 traffic operations under Alternative 1 are summarized in **Table 7**. As shown, both Build Alternatives are anticipated to provide substantial reductions in system-wide vehicle delay over the No Build alternative and provide LOS C or better operations at every signalized intersection. Both Build alternatives also are anticipated to eliminate queue spillback from the ramp terminal intersections to the Route 99.

TABLE 7
DESIGN YEAR (2035) BUILD ALTERNATIVES INTERSECTION ANALYSIS

Intersection	Traffic Control	Peak Hour	No Build		Alternative 1	
			Control Delay	LOS	Control Delay	LOS
1. Salida Boulevard / Kiernan Avenue	Signal ¹	AM	>100	F	23	C
		PM	>100	F	28	C
2. SR 99 Southbound Ramps / Kiernan Avenue	Signal ¹	AM	>100	F	20	C
		PM	63	E	19	B
3. SR 99 Northbound Ramps / Kiernan Avenue	Signal ¹	AM	>100	F	21	C
		PM	98	F	19	B
4. Indian Ridge Lane / Kiernan Avenue	SSSC ²	AM	12 (>100)	B (F)	42 (>100)	E (F)
		PM	6 (21)	A (C)	2 (30)	A (D)
5. Kiernan Court / Kiernan Avenue	SSSC ²	AM	6 (84)	A (F)	2 (5)	A (A)
		PM	63 (>100)	F (F)	3 (19)	A (C)
6. Sisk Road / Kiernan Avenue	Signal ¹	AM	73	E	30	C
		PM	>100	F	33	C

Notes: Results based on SimTraffic simulation of 10 runs.

1. Signalized intersection level of service based on weighted average control delay per vehicle, according to the *2000 Highway Capacity Manual*.
2. Side-street stop intersection level of service based on weighted average control delay per vehicle and worst approach control delay per vehicle, according to the *2000 Highway Capacity Manual* in the notation: average (worst approach).
3. Under Alternative 2, the southbound ramps are split into two intersections. The off-ramp intersection (2a) is presented first followed by the on-ramp intersection (2b). See Figure 6-2 for the layout of the interchange.
4. The vehicle delay was computed by adding up each intersection's vehicle delay which is computed by multiplying the demand volume by the intersection delay (measured in vehicle-hours).

Source: Fehr & Peers, 2010.

- **INTERIM FEATURES**

There are no interim features associated with the project. The Project will be constructed in its entirety.

- **HIGH OCCUPANCY VEHICLE (HOV) LANES**

There are no HOV lanes on the existing facility. The project will provide new HOV bypass lanes on the northbound and southbound on-ramps.

- **RAMP METERING**

The project will provide ramp metering on all on-ramps.

- **CALIFORNIA HIGHWAY PATROL (CHP) ENFORCEMENT AREAS**

New CHP enforcement areas will be provided next to the ramp metering at each new on-ramps on both alternatives. No changes are planned on mainline Route 99.

- **PARK AND RIDE FACILITIES**

There are no Park and Ride facilities or modifications proposed within the project vicinity.

- **UTILITY INVOLVEMENT**

The following are the owners that have facilities in the project vicinity:

The Modesto Irrigation District is a public utility that supplies surface water, groundwater, and electrical service to agricultural and municipal customers throughout its 101,700-acre service area. Their existing 12 KV overhead lines within the project limits will be relocated.

The City of Modesto Water Operations Division supplies drinking water to residents in Modesto, Empire, Salida, Waterford, Hickman, Grayson, Del Rio, parts of Ceres and Turlock and county areas adjacent to the City system. Their existing 12” steel pipeline within the project limits will be relocated.

The Salida Sanitary District provides wastewater collection and treatment. The Regional Wastewater Control Facility is located in Salida on Pirrone Road. The district treats wastewater using an “Intermittent Cycle Extended Aeration System”. There are no anticipated relocations of SSD facilities.

AT&T provides telephone service in the Community Salida. The communications facilities are routed underground in public utility easements following the street alignments and include a mix of fiber optics, copper cable, and their supporting facilities. Their existing C Plastic Conduit (CPC) of various sizes, and fiber / copper cables within the project limits will be relocated.

Pacific Gas and Electric provides natural gas services into the proposed project area. Gas facilities are routed above and below ground as needed in public utility easements.

- **RAILROAD INVOLVEMENT**

The Union Pacific Railroad traverses north-south through the area, crossing Broadway Avenue just west of Salida Boulevard. The average number of trains per day is 19. The County of Stanislaus is planning an improvement project to add sidewalks and two lanes in each direction for the crossing of the Union Pacific Railroad. This work is anticipated to be completed prior to construction of improvements at the Route 99/Kiernan Avenue interchange.

No railroad grade separation is planned by either the County or the Union Pacific Railroad at this location. The Project will require a temporary construction easement from the UPRR for project conforms at the right of way line.

- **HIGHWAY PLANTING**

The Project will provide replacement landscape planting and irrigation systems in areas affected or disturbed by construction. The level of replacement planting will be in accordance with Caltrans standards. No special monuments are planned. Bridge aesthetic treatments are planned to be similar to that planned at the Route 99/Pelandale Interchange, which includes fencing treatments and form liners for bridge barriers and retaining walls.

- **EROSION CONTROL**

The project will include appropriate temporary construction site BMPs for temporary soil stabilization, temporary sediment control, wind erosion control, tracking control, non-storm water control, and waste management and materials pollution control. Dewatering will not be required during the construction of the project. The following steps will be used to stabilize embankment slope areas.

- The existing cut and fill slopes are 2 horizontal to 1 vertical or flatter and they are found to be stable.
- Cut and fill slopes will be disturbed/created. All the proposed embankment slopes will be 4 horizontal to 1 vertical or flatter. Erosion Control Plans will be prepared and submitted to the District Landscape Architect in the PS&E phase.
- Cut and fill sloped surfaces will be vegetated to prevent erosion and filter pollutants in storm water runoff.
- Landscaping will be included in this project, with details determined at the PS&E stage. Permanent erosion control will be applied to assist in stabilizing the slopes within the project area.

- **MEASURES FOR AVOIDING OR REDUCING STORM WATER IMPACTS**

The project will include the construction of an additional sump on Route 99 connecting to the existing sump and new pump station to store additional runoff. The highway storm water runoff and groundwater seepage will continue to be pumped to the Stanislaus River with the same pumping rate as current flow. The storm water runoff of certain segments of proposed ramps will be discharged into adjacent infiltration basins. The majority of storm water runoff from the freeway and ramps will follow existing drainage patterns and will discharge into existing and new sumps and pump station. The proposed new infiltration basins are located within Caltrans right of way, and will accommodate all the stormwater runoff generated from the net new impervious area with no overflow outlets, and no connection to the MS4 system or surface waters. The project will include Design Pollution Prevention BMPs and Temporary Construction Site BMPs as required. Provision is made in the project cost estimates to extend the existing cross drainage structures to convey the storm water discharge. More detailed investigations and studies are required in final design to confirm the hydraulic and structural adequacy of the existing drainage system. The following design pollution prevention BMP's will be implemented in the project at the Kiernan interchange.

- The existing CIP with outlet protection/velocity dissipation device at the Stanislaus River will remain. No additional flow to the Stanislaus River is planned.
- Currently, all the storm water from the existing impervious areas within the project limits is discharged into the sump and eventually flows into the Stanislaus River.
- The proposed project will construct an additional sump next to the existing pump station to store additional pavement runoff. The pumping rate to the downstream system will remain the same.
- For conveyances that generate a water velocity greater than 2.5 ft/s and/or pose a possible erosion problem, the conveyance will be lined with asphalt concrete or aggregate (rock slope protection).
- The project will incorporate HMA dikes along the edge of shoulder to intercept and direct surface runoff to inlet structures.
- Unlined ditches along the toe of embankment slopes will be constructed to intercept sheet flow and convey concentrated flows. These ditches are designed to convey storm water to the infiltration basins.
- Rock slope protection and flared end section protection will be used at new drainage outfalls and steep slopes to prevent scour.
- The project will involve clearing and grubbing.
- Preservation of existing vegetation will be done as much as possible. Additional landscaping will be provided in the project design.
- The project is aligned to minimize disturbance.
- There are areas that will require fencing or identification for preservation purposes. These areas will be incorporated into the plan set when all environmental sensitive areas have been identified.

Proposed Treatment BMP's

- General Purpose Pollutant Removal will be the Treatment BMP Strategy since none of the identified pollutants are considered as Targeted Design Constituents (TDC) that require specific treatment BMPs in this project.
- The project is required to provide treatment of the highway storm water runoff generated from the net new impervious area before it is discharged to surface waters (i.e., the Stanislaus River), pursuant to Caltrans' Statewide Storm water Management Plan. It is proposed to divert the pavement runoff generated from 12.5 acres of impervious surface to the proposed infiltration basins before discharging into the pump station.
- Infiltration basins are proposed to retain a 10-year, 24-hour storm runoff, with a safety factor of two (2). Biofiltration strips and swales will also be considered to the extent practicable. The details and extent of biofiltration swales and strips will be provided in the PS&E phase.
- Bioswales and strips will be provided as pretreatment to infiltration basins.
- Three (3) infiltration basins are proposed within the project area for Preferred Alternative.
- The side slopes of all the basins are proposed to be 4 horizontal to 1 vertical. The depth of water is limited to 3 feet with 1 foot of freeboard.

Attachment D provides the Storm Water Data Report cover sheet for the Preferred Alternative.

- **NOISE BARRIERS**

Based on the findings of the NSR and NADR for this project, the following soundwall was found to be both feasible and reasonable and are recommended for construction at the specified height:

Alt1 SB3. This sound barrier will be located along the southern property line of the residential land uses whose properties border Kiernan Court. This sound barrier will also wrap around to the north along the eastern property line of the residential land uses that, with implementation of the project, will border Sisk Road. This sound barrier is modeled to protect the existing residential land uses. The height is proposed to be 12 ft.

- **NONMOTORIZED AND PEDESTRIAN FEATURES**

There are existing pedestrian sidewalks on Kiernan Avenue, however they are only 4 ft wide. This project will provide 5-10 foot wide sidewalks on both the north and south sides of Kiernan Avenue for both viable alternatives. 10 ft. sidewalks will be provided on the Kiernan bridge over Route 99. Pedestrian curb ramps and crosswalk will be provided at each intersection, except the interior intersection crossings between the NB and SB ramp intersections.

- **NEEDED ROADWAY REHABILITATION AND UPGRADING**

Kiernan Avenue, Sisk Road and Salida Boulevard will be widened as part of the project. These roads will be overlaid to provide a smooth running surface throughout the project limit. The existing pavement structure on all roadways (Route 99, Route 219 (Kiernan Avenue), Sisk Road, Salida Boulevard) in the project vicinity is flexible pavement, with the exception of the Route 99/Route 219 (Kiernan Avenue) bridge, which is concrete rigid pavement deck. The project proposes to match existing pavement type for all roadway widening. A Life Cycle Cost Analysis (LCCA) will be conducted in the PS&E phase.

A separate project is being designed by Caltrans (EA 10-0M800) to replace the pavement along this section of Route 99 with Continuously Reinforced Concrete Pavement (CRCP). Expected project construction start is Spring 2012.

- **NEEDED STRUCTURE REHABILITATION AND UPGRADE**

The existing Route 99/SR-219 (Kiernan Avenue) overpass bridge will be replaced with a wider bridge for both alternatives. Also a new pump station will replace the existing one which is located at the northeast quadrant of Route 99/SR-219 (Kiernan Avenue) interchange.

- **RIGHT OF WAY DATA**

Implementation of the Preferred Alternative requires the acquisition of permanent and temporary right way. The approved right of way data sheet for Alternative 1 is provided in **Attachment E**.

The Preferred Alternative will require the acquisition of two tenant occupied single-family residences requiring displacement of the residents. Up to four businesses may be required to relocate to another site, including one office building user and up to three businesses occupying industrial/warehouse properties.

- **EFFECT OF PROJECTS FUNDED BY OTHERS ON STATE HIGHWAY**

The combination of auxiliary lane and improved interchange movements will improve levels of service on Route 219 and will improve levels of service for weaving conditions on Route 99.

B. REJECTED ALTERNATIVES

The Project Development Team (PDT) explored a number of viable alternatives at the Kiernan Avenue interchange during the PSR phase. The Project Team developed Traffic Operations Reports for seven build alternatives in the PSR:

- Alternative 1 – Widen the Existing Compact Diamond Interchange
- Alternative 2 – Hybrid (Type L-1 and Type L-6) Interchange
- Alternative 3 – Modified Compact Diamond with Southbound Loop On-ramp
- Alternative 4 – Modified Compact Diamond with Southbound Loop Off-Ramp
- Alternative 5 – Hybrid (Type L-1 and Type L-10) Interchange
- Alternative 6 – Modified Compact Diamond with SB Buttonhook Ramps North of Broadway
- Alternative 7 – Modified Compact Diamond with SB Buttonhook Ramps South of Broadway

During the PDT meetings with Caltrans staff and other stakeholders, it was decided to drop Alternatives 3 through 7 from further analysis due to their poor operational performance, significant right of way impacts and cost.

During PA&ED, Alternative 2 was dropped from further consideration, due to high cost, greater right of way acquisition and longer construction time frame.

6. CONSIDERATIONS REQUIRING DISCUSSION

A. HAZARDOUS WASTE

One property in the vicinity of the project site was identified that contained past or present hazardous materials. The Initial Site Assessment contains the following recommendations to avoid, minimize, and/or mitigate the construction related hazardous materials impacts to the proposed project.

- Surface samples of soil should be collected and analyzed for lead within the project area. This will be done in the PS&E phase.
- Since the project involves work near railroad lines, the soil should be tested for the presence of heavy metals, TPH as diesel, fuel oil, and PCBs. Prior to soil testing a work plan should be prepared detailing testing locations and analytical methods. This will be done in the PS&E phase.
- Soil samples should be taken from the proposed project site and analyzed for pesticides and herbicides. This will be done in the PS&E phase.
- If any pole-mounted or pad-mounted transformers are removed during construction of the proposed project the local utility company should be contacted. This will be done in the PS&E phase.
- Thermoplastic striping removal activity will be conducted in compliance with all applicable laws and regulations, such as the guidelines by the California Occupational Office of Safety and Health, San Joaquin Valley Unified Air Pollution Control District, and applicable Best Management Practices.
- During the visual site survey, the Initial Site Assessment was unable to determine the exact location of the underground storage tank located at the intersection of Kiernan Avenue and Sisk Road. Prior to start of any construction activities, including grading or ground disturbance, it is recommended that the underground storage tank be located in order to avoid accidental rupture of the tank during construction activities. Potholing and confirmation will be done in the PS&E phase.

B. VALUE ANALYSIS

A Value Analysis study session was conducted in November 2009. The VA team identified ten (10) key VA alternatives that were considered to address the following functions: *Minimize R/W Impact*, *Improve Constructability* and *Reduce Maintenance*. All of the alternatives maintain functionality, offer performance improvements, and reduce initial cost and/or life cycle costs.

Four (4) VA alternatives were accepted as shown in **Table 8**. By implementing these VA alternatives, the overall constructability will be simplified, and there will be reduction of initial cost. The total potential reduction of initial cost was estimated at \$1,557,000. These VA alternatives also offered the improvement of overall performance by 17%, and 23% in value improvement.

TABLE 8 ACCEPTED ALTERNATIVES			
Alternative Number	Description	Potential Savings (Additional Cost)	Performance
D3.0*, H3.0*	Use 5' sidewalks or matching existing width	D3.0: \$520,000 H3.0: \$763,000	D3.0: +17% H3.0: +19%
	The current sidewalks on existing roadway are 5' wide. The VA team proposes to reduce the proposed baseline design sidewalk section from 10' to 5' to match the existing sidewalks. With the reduction of width, bridge section can be reduced as well as the overall initial project cost.		
H4.0	Shorten retaining wall height and/or length by steepening side slopes	\$347,000	+11%
	There is approximately \$3Million devoted to retaining walls within the proposed design. There is sufficient space in many areas to cut back the slopes behind the proposed walls. An example of this is as follows. The existing southbound on and off-ramps are being removed as a part of this design. The areas within the interchange that were previously accommodating the southbound on and off ramps can be cut back and sloped to eliminate some of the proposed retaining walls along the KL2 ramp line. There exists between 27ft and 67ft behind the proposed retaining wall north of the overcrossing that can be sloped back to avoid the need for the retaining wall.		

C. RESOURCE CONSERVATION

There are no major facilities that can be salvaged and relocated from this project. However, to the extent possible, existing roadway features such as signs, light standards, guardrails, associated hardware and roadway materials will be relocated or stockpiled to be used at a later date. Rubberized asphalt overlay pavement will be used as the finished surface.

D. RIGHT OF WAY ISSUES

This project requires the acquisition of additional permanent and temporary right way. Approved right of way data sheets for both alternatives are provided in **Attachment E**.

A field review of the proposed project was conducted to determine the potential impact on the residential and nonresidential units. Fewer than ten displacements are anticipated in Build Alternative 1 (Preferred Alternative) and there appears to be ample replacement property available. Alternative 1 will require the acquisition of two tenant occupied single-family residences requiring displacement of the residents. Based on a 4% vacancy rate for the community and a review of various listing and advertising sources, there appears to be sufficient single-family residences in the community that are equal to or better than the displacement properties available for rent or purchase. Up to four businesses may be required to relocate to another site, including one office building user and up to three businesses occupying industrial/warehouse properties. Based on a review of available office and

industrial/warehouse properties in the Salida and surrounding north Stanislaus County area, a sufficient supply appears to exist of suitable replacement sites for sale or lease.

E. ENVIRONMENTAL CONSIDERATIONS

A Combined Initial Study/Mitigated Negative Declaration (for CEQA clearance) and Environmental Assessment/Finding of No Significant Impact (for NEPA clearance) has been prepared and is attached to this Project Report as **Attachment I**. Impacts of the proposed project and major mitigation requirements of the Environmental Document are summarized below:

- (1) **Land Use.** No substantial impacts to land use will result from construction of the proposed project because the project is consistent with local planning for the area and will not cause land use inconsistencies.
- (2) **Parks and Recreation.** None of the park or trail facilities located within five hundred feet of the project limits are anticipated to be affected by the project. As such, there are no impacts regarding the implementation of the project on parks and recreation facilities. No section 4(f) resources will be affected by the project as there are no 4(f) resources present in the project area.
- (3) **Growth.** The 2035 Stanislaus County General Plan does not have forecasted any potential growth as a result of the proposed project. The proposed project and its relative cumulative projects will not stimulate unplanned residential or related commercial growth. It is not foreseeable that project related growth will put pressure on or cause impacts to the environmental resources of concern.
- (4) **Farmlands/Timberlands.** Project implementation (i.e., inside widening, auxiliary lanes, interchange construction) will result in the irreversible conversion of approximately 5 acres of agricultural soils to urban (highway) uses for each of the alternatives considered. In light of the minor loss of agricultural lands (conversion of lands to urban uses), and a rating below 160 points from the Justification for Site Assessment, it is concluded that the proposed project will not significantly impact agricultural soils or productivity.
- (5) **Community Impacts.**

Community Character and Cohesion

The proposed project will result in only a small amount of land that needs to be acquired. Of the lands involved in acquisition only a few of the acquisitions require displacements (3 single-family homes and 4 industrial businesses). No impacts will be expected on community character and cohesion; therefore, no mitigation is required.

Relocations

Full property acquisitions are needed for 3 single-family homes and 4 industrial businesses due to the change in road width at Kiernan Avenue and Sisk Road and to accommodate ramp geometry. The number of available properties on the market exceeds the amount needed to

relocate the affected properties. Therefore, there are adequate resources currently available within or near the project area to facilitate relocations for affected residential owners. The businesses do not appear to rely on foot traffic or drive by patronage to be successful. It is not anticipated that a new location in the general area will affect the revenues of these businesses. The following measures will be required to address property displacements and relocations associate with the Kiernan Avenue Interchange improvements:

- All displacees will be contacted by a Relocation Agent who will ensure that eligible displaced residents receive their full relocation benefits including advisory assistance, and that all activities will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Relocation resources will be available to all displaced residents free of discrimination. At the time of the first written offer to purchase, owner occupants are given a detailed explanation of Caltrans' "Relocation Program and Services." Tenant occupants of properties to be acquired will be contacted soon after the first written offer to purchase and also given a detailed explanation of Caltrans' "Relocation Program and Services." In accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, Caltrans will provide relocation advisory assistance to any person, business, farm, or non-profit organization displaced as a result of acquisition of real property for public use.
- The Uniform Relocation Assistance and Real Property Acquisitions Policies Act (Uniform Act) of 1970 (Public Law 91-646, 84 Stat. 1894) mandates that payments be made available to eligible residents, businesses, and nonprofit organizations displaced or affected by projects. The Uniform Act provides for equitable land acquisition policies.
- Where acquisition is unavoidable the provisions of the Uniform Act and the 1987 Amendments as implemented by the Uniform Relocation Assistance and Real Property Acquisition Regulations for Federal and Federally Assisted Programs adopted by the Department of Transportation dated March 2, 1989 will be followed. An independent appraisal of the affected property will be obtained and an offer for the full appraisal will be made.

Environmental Justice

The racial and economic make-up around the Kiernan Avenue Interchange vicinity consists predominantly of non-minority populations with most residents living above the federal poverty level. Compared to the County the project area will have comparable minorities and fewer residents below the federal poverty level. For this reason, the proposed project does not cause a disproportionately high adverse affect on any minority or low-income population as per Executive Order 12898 regarding environmental justice.

- (6) **Utilities/Emergency Services.** A number of utilities for water, wastewater, storm drainage, electric and natural gas services, and other services are located in the project area. Construction of the proposed project may require the relocation of utilities that will be affected by the project. These relocations should not present any unusual circumstances and

are considered routine for roadway construction projects. Minimization measures to alleviate utilities/emergency services impacts are as follows:

- The project will be designed to minimize conflicts with utilities in the project area. The project will include relocation of those utilities that will be inaccessible for maintenance or access purposes as a result of the project.
- The contractor will be required to provide notification to utility users of any short-term, limited interruptions of service.
- If unexpected underground utilities were encountered, the contractor will coordinate with the utility provider to develop plans to address the utility conflict, protect the utility if needed, and limit services interruptions.
- The contractor will circulate construction schedules and traffic control information to County emergency service providers at least one to two weeks before any road closures.

(7) **Visual/Aesthetics.** Overall impacts to “views of the road” result in some decline to the surrounding visual environment as a result of the proposed project. Changes to the viewshed as a result of the project alternatives will marginally degrade all observation points. Overall impacts to “views from the road” will not change the views dramatically as a result of the proposed project. Measures to alleviate visual impacts are as follows:

- Architectural detailing and/or surface treatments consistent with the surrounding community should be incorporated into new bridge design.
- Artistic soundwall design should be implemented to break up the built environment and enhance the driving experience. Soundwall design should be compatible with the surrounding area and meet community goals.
- Soundwalls should be designed to discourage the proliferation of graffiti. Some examples of soundwall design may include rough-textured finishes or uneven surfaces, graffiti-resistant coatings, and vine plantings of a type that will attach to walls.
- Replacement planting will include the replacement of removed landscaping.
- Areas affected or disturbed by construction will be replanted in the form of standard replacement landscape planting and irrigation systems.

(8) **Cultural Resources.** The background research, consultation, and field survey identified no cultural resources within or adjacent to the APE. Therefore, the proposed project will not impact any known cultural resources. However, because cultural resources could be found during project construction, the following mitigation measures are suggested:

- If any unknown cultural resources are discovered during construction all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist could assess the nature and significance of the find.
- If human remains are discovered State Health and Safety Code Section 7050.5 states that further disturbances and activities will cease in any area or nearby area suspected to overlie remains and the County Coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains were thought to be Native American the coroner will notify the Native American Heritage Commission, which will then notify the Most Likely Descendent. At this time the person who discovered the remains will contact

the City of Stockton so that they may work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code 5097.98 are to be followed as applicable.

- (9) **Hydrology and Floodplain.** The proposed project will add additional travel lanes and reconstruct an existing interchange. These improvements will not result in either longitudinal or transverse encroachment of a floodplain. The proposed project will not have significant adverse impacts to the existing floodplain or alter the hydraulics of the project site.
- (10) **Water Quality and Stormwater Runoff.** Project construction may cause disturbances to the ground surface from earthwork potentially increasing the amount of sediment entering the watershed. Runoff during the winter season is of greater concern because of the potential for erosion of unprotected and/or graded surfaces. Sediments suspended in runoff will be carried downstream, where, if not controlled, could accumulate in downstream water courses, or wetlands areas, potentially harming any downstream aquatic resources and decreasing water quality. Stormwater runoff from the roadway surfaces and construction activities may contain oil, grease, petroleum products, or other pollutants. Zinc, copper, lead, cadmium, iron, and other trace metals may also accumulate on road surfaces. Concentrations of these pollutants in stormwater runoff will be greatest during the “first flush” storm event, generally the first major rain of the season. The design and construction of the proposed project must adhere to the requirements in the National Pollutant Discharge Elimination System, Caltrans Storm Water Management Plan, the Caltrans Project Planning and Design Guide, and Best Management Practices.

NPDES/Storm Water Quality

The State Water Resources Control Board requires all jobs involving more than 1.0 acre of soil disturbance to file a notification of Construction (NOC) and have an approved Storm Water Pollution Prevention Plan (SWPPP) before construction may proceed. The Department’s design policy requires that all projects will include critical Construction Site BMPs in the PS&E documents. This will include BEES Items, SSPs and Details for each critical Construction Site (temporary) BMP to be included in the PS&E. This project will be constructed under a SWPPP, and include appropriate, critical Construction site and Permanent Treatment BMPs in the PS&E documents.

NPDES/Stormwater Management

The United States Environmental Protection Agency delegated to the State Water Resources Control Board (State Board) the authority to administrate and enforce Section 402 of the Federal Clean Water Act. Pursuant to Section 402, the National Pollutant Discharge Elimination System (NPDES), State Board formulated a permit – State order No. 2009-0009 DWQ NPDES Permit CAS000002 – authorizing discharges to surface waters of stormwater runoff from construction sites, with the condition that the permitted employ the Best Available Technology Economically Achievable and Best Pollutant Control Technology in achieving compliance with the limits set in the Permit. Permittees obtain coverage under this General Construction Permit by filing with the State Board a Notice of Intent (NOI) to comply with its terms. Also pursuant to Section 402, the State Board formulated specifically for

Caltrans a combined, statewide, individual NPDES for the Department of Transportation (Caltrans Statewide NPDES Permit), which relieves Caltrans from the administrative obligation to file an NOI for construction activities, but requires compliance with the substantive aspects of the General Construction Permit. When Caltrans administers a construction contract, it obtains coverage for its construction sites under its own Permit by submitting a Notification of Construction (NOC) to the Regional Water Quality Control Board (Regional Board). The Construction Contract for this project is expected to be administered by the County. The County will be required to submit an NOI to the State Board to obtain coverage under the General Construction Activities Stormwater Permit.

- (11) Geology/Soils/Seismic/Topography.** Potential seismic hazards arise from three sources: ground shaking, surface fault rupture, and liquefaction. No active faults pass through the project site. Therefore, the potential for fault rupture is low. Based on available geologic and seismic data, the probability that the project site will experience ground shaking is low to moderate. In general, the impact of post-liquefaction on the roadway should be relatively small because the potentially liquefiable soil layers are generally covered by cohesive soils, which tend to serve as a “soil mat” and should reduce the potential impact of liquefaction. The proposed project will incorporate the recommendations and design features to minimize geologic impacts included in the Preliminary Geotechnical Report.
- (12) Air Quality.** An Air Quality Study Report was completed in October 2010. The study used data from an air pollution monitoring station in Modesto. The station monitored PM_{2.5}, PM₁₀, Ozone, nitrogen dioxide, and carbon monoxide. The data shows that the monitor did not exceed the State or federal PM₁₀ 24-hour standards during the three-year period. The pollutant concentrations exceeded the federal PM_{2.5} 24-hour standard (98th percentile), as well as the State PM_{2.5} annual standard, during the three-year period. Eight-hour ozone levels exceeded both State and federal standards in the years 2006, 2007 and 2008. Carbon monoxide and nitrogen dioxide levels are well below relevant State and federal standards. According to the Environmental Protection Agency 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 operations by smoothing traffic flow and vehicle speeds by improving weave and merge operations, which will not be expected to create or worsen particulate matter 2.5 or 10 microns 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.

Mobile Source Air Toxics emission estimates were derived from the University of California at Davis/Caltrans spreadsheet tool. The highest concentration of all pollutants is in the base year (2006). All of the future alternatives (no build and build), emissions are projected to be lower than present levels in the design year. Mitigation measures include compliance with Caltrans Standard Specifications pertaining to dust control and dust palliative requirements, which are a required part of all construction contracts and should effectively reduce and control emission impacts during construction. The provisions of Caltrans Standard Specifications, Section 7-1/OF

“Air Pollution Control” and Section 10 “Dust Control” require the contractor to comply with the San Joaquin Air Pollution Control District’s rules, ordinances, and regulations.

- (13) Biological Impacts.** The Natural Environment Study (Minimal Impacts) was approved in July 2010. The biological study area (BSA) was created to encompass the proposed project footprint and typical habitats in the immediate project vicinity that may be affected by the proposed project.

Special Status Animal Occurrences

Several special status animal species are potentially present within the BSA. There are special status species that are considered to have a moderate to high probability of occurrence within the BSA. As stated in the NES, some of these species are federally or State-listed as threatened or endangered. Others are listed as California Species of Concern or are classified by the CDFG as a “special animal” because of population declines. The following avoidance, minimization, and/or mitigation measures will minimize any potential impacts to the indicated special status animals from construction of the sound walls of the preliminary noise abatement decision.

- **Bats.** Project construction may reduce or temporarily eliminate access to roost sites in bridge structures. The project does not propose removal of any existing structures, so there should be no permanent loss of roost sites. The project will not significantly affect bat foraging habitat. With the preconstruction survey described under 2.3.4 Avoidance and Minimization Measures of the NES, there should be no effect to bats. With this mitigation measures, no impacts to these species are expected with construction of the proposed project.
- **Nesting Birds.** The project may reduce or temporarily eliminate trees that support nesting habitat. With the preconstruction survey described under 2.3.4 Avoidance and Minimization Measures of the NES, there should be no effect to nesting/foraging raptors. With this mitigation measure, no impacts on these species are expected with construction of the proposed project.
- **Burrowing owls.** Although no burrows were identified in the project area, some records of burrowing owls exist within 10 miles of the biological study area. With the preconstruction surveys and the measures described under 2.3.4 Avoidance and Minimization Measures of the NES, there should be no direct effect to nesting or wintering burrowing owls due to construction of the proposed project.

With the preconstruction survey and the application of the above avoidance, minimization, and mitigation measures, construction of the proposed project is not anticipated to have an adverse impact on these animals.

F. AIR QUALITY CONFORMITY

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, nitrogen dioxide, ozone, particulate matter, lead, and sulfur dioxide. Under the 1990 Clean Air Act Amendments, the United States 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 will conform to emission budgets or other tests showing that attainment requirements of the Clean Air Act are met. If the conformity analysis is successful, the regional planning organization, such as the Bay Area Air Quality Management District 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 or particulate matter analysis performed for National Environmental Policy Act 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 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 project vicinity, the project must include measures to reduce or eliminate the existing violation(s) as well.

G. TITLE VI CONSIDERATIONS

Provisions for pedestrian access through each interchange have been provided in the design, consisting of 5-10 foot wide pedestrian sidewalks, and wheelchair ramps at signalized intersections where appropriate.

H. NOISE ABATEMENT DECISION REPORT

This section represents the Noise Abatement Decision Report (NADR) which:

- Is an evaluation of the reasonableness and feasibility of incorporating noise abatement measures into this project;
- Constitutes the preliminary decision on noise abatement measures to be incorporated into the Environmental Document; and
- Is required for Caltrans to meet Title 23, Code of Federal Regulation, Part 772 of the Federal Highway Administration standards.

Results of the Noise Study Report

The Noise Study Report (NSR) for this project was prepared by LSA Associates, Inc. in October 2009 and approved by District 6 Program/Project Management in July 2010. Thirty-three (33) representative existing sensitive receptors were modeled and evaluated for potential noise impacts resulting from traffic noise. When traffic noise impacts have been identified, noise abatement measures must be considered. Traffic noise impacts result from one or more of the following occurrences: (1) an increase of 12 A-weighted decibels (dBA) or more over existing noise levels, or (2) predicted noise levels approach or exceed the Noise Abatement Criteria (NAC).

Implementation of the proposed project will result in potential short-term noise impacts during construction and long-term noise impacts from use of the completed project. No substantial noise level increase from the corresponding existing noise level will result from operation of the completed project. Of the thirty-three receptor locations that were modeled in the project area, ten receptors will approach or exceed the NAC under future 2035 build traffic conditions.

The following sound barriers were analyzed to protect the described sensitive receptor locations that would be exposed to traffic noise levels approaching or exceeding 67 dBA L_{eq} :

- Preferred Alternative SB1. This sound barrier was analyzed for Alternative 1 and would be located along the west shoulder of SR-99 from approximately station marker 290+00 of the SB on-ramp to station marker 278+00 on the mainline to protect the existing residential land uses represented by the impacted modeled receptors R2 and R3.
- Preferred Alternative SB2. This sound barrier was analyzed for Alternative 1 and would be located along the east shoulder of SR 99 from approximately station marker 300+00 of the NB on-ramp to station marker 315+00 to protect the existing residential land uses represented by impacted modeled receptors R11, R12, R13, and R25.
- Preferred Alternative SB3. This sound barrier was analyzed for Alternative 1 and would be located along the southern property line of the residential land uses whose properties border Kiernan Court. This sound barrier would also wrap around to the north along the eastern property line of the residential land uses that, with implementation of the project, would border Sisk Road. This sound barrier is modeled to protect the existing residential land uses represented by the impacted modeled receptors R7, R8, R32, and R33.

Non-acoustical Factors Relating to Feasibility

Factors not relating to acoustics that must be considered during the construction of sound barriers include: Safety, Maintenance, Security, and Utility Relocations. Additional factors to consider include opinions of affected residents, input from the public and public agencies. Social, economic, legal, and technological factors also must be considered. The factors not relating to acoustics are addressed below:

- Safety. The proposed sound barriers will not affect sight distance for vehicular or pedestrian traffic.
- Maintenance. No special maintenance considerations will be required. Access to private property will not be required for future maintenance because the proposed sound barrier is located along the edge of shoulder of the roadway.
- Security. The walls can create potential security risks by providing cover for people trying to remain out of sight from the roadway behind residential properties.
- Geotechnical Considerations. According to the Preliminary Geotechnical Report, spread and trenching footing foundations are anticipated to be suitable for supporting the proposed sound barriers. However, these sound barriers and associated footings will be founded on compacted fills that compose the existing embankments and new fill embankments. Therefore, geotechnical investigations will require excavating boreholes in the existing fill along the alignment of the sound barriers to evaluate the competency of these soils.
- Utility Relocations. The proposed sound barriers will require no special utility relocation and will not cross or interfere with any existing or planned utilities

Noise Abatement Results

A Noise Abatement Decision Report (NADR) was prepared in accordance with the Caltrans Traffic Noise Analysis Protocol (Protocol) and approved by Caltrans in July 2010. A summary of abatement information is provided in **Table 9**, which lists all the feasible sound barriers, along with their approximate length, height, noise attenuation range, reasonable allowance per residence, total reasonable allowance, estimated sound barrier construction costs, and whether the sound barrier is reasonable. The reasonableness of a sound barrier was determined by comparing the estimated cost of constructing the sound barrier against the total reasonable allowance. The total reasonable allowance was determined based on the number of benefited residences multiplied by the reasonable allowance per residence. Sound barrier construction costs were estimated by Rajappan & Meyer Consulting Engineers, Inc. (2010). Construction cost estimates were based on standard masonry block construction. If the estimated sound barrier construction cost exceeded the total reasonable allowance, the sound barrier was determined to be not reasonable. However, if the estimated sound barrier construction cost is within the total reasonable allowance, the sound barrier was determined to be reasonable. The reasonable sound barriers are also listed in Table 9 and are summarized as follows:

TABLE 9 SUMMARY OF ABATEMENT KEY INFORMATION						
Barrier	Height (meters [feet])	Acoustically Feasible?	Number of Benefited Residences	Total Reasonable Allowance (\$)	Estimated Construction Cost (\$)	Reasonable? Yes/No
Alternative 1						
SB1	1.8 (6)	Yes	3	105,000	290,640	No
	2.4 (8)	Yes	3	105,000	387,520	No
	3.0 (10)	Yes	3	111,000	484,400	No
	3.6 (12)	Yes	3	117,000	581,280	No
	4.3 (14)	Yes	3	117,000	678,160	No
	4.9 (16)	Yes	3	117,000	775,040	No
SB2	4.9 (16)	Yes	3	99,000	961,920	No
SB3	2.4 (8)	Yes	5	185,000	308,800	No
	3.0 (10)	Yes	10	390,000	386,000	/Yes
	3.6 (12)	Yes	13	507,000	463,200	/Yes
	4.3 (14)	Yes	13	507,000	540,400	No
	4.9 (16)	Yes	19	779,000	617,600	No
Alternative 2						
SB1	3.0 (10)	Yes	1	37,000	523,200	No
	3.6 (12)	Yes	1	39,000	627,840	No
	4.3 (14)	Yes	1	39,000	732,480	No
	4.9 (16)	Yes	3	39,000	837,120	No
SB2	4.9 (16)	Yes	3	33,000	961,920	No
SB3	2.4 (8)	Yes	3	37,000	308,800	No
	3.0 (10)	Yes	10	39,000	386,000	No
	3.6 (12)	Yes	13	39,000	463,200	No
	4.3 (14)	Yes	13	39,000	540,000	No
	4.9 (16)	Yes	13	41,000	617,600	No

Each noise barrier evaluated was evaluated for feasibility based on achievable noise reduction. A minimum noise reduction of 5 dBA must be achieved at the impacted receptors in order for the proposed noise abatement measure to be considered feasible. The feasibility criterion is not necessarily a noise abatement design goal. Greater noise reductions are encouraged if they can be reasonably achieved. Elements that may restrict feasibility include topography; access requirements for driveways, ramps, etc.; location of local streets in relation to the proposed project; other noise sources in the area; and safety considerations. During the evaluation of a sound barrier, several other factors were also considered in making this recommendation:

- Line-of-sight break between a receptor and a 3.5 m (11.5 ft) high truck stack (per Chapter 1100 of the Highway Design Manual)
- Absolute noise level (a barrier that reduces the absolute noise level to below the severe impact level of 75 dBA $L_{eq(h)}$ could be favored over one that does not)
- Number of benefited residences
- Cost per benefited residence
- Degree of noise reduction (a barrier that provides only 1 dB of improved noise reduction over a lower barrier and costs substantially more may not be favored over the lower barrier)

- 20-year minimum lifecycle for sound barrier

The preliminary noise abatement decision presented here will be included in the draft environmental document for this project, which will be circulated for public review. Based on the feasible and reasonable sound barriers shown in Table 9 and the consideration of the criteria listed above, the following sound barrier is recommended along with its specified height:

- Alt1 SB3, 12 feet
For each noise barrier found to be acoustically feasible, reasonable cost allowances were calculated. Refer to the Protocol for the definition of the critical design receptor. For any noise barrier to be considered reasonable from a cost perspective, the estimated cost of the noise barrier should be equal to or less than the total cost allowance calculated for the barrier. The cost calculations of the noise barrier should include all items appropriate and necessary for construction of the barrier, such as traffic control, drainage modification, and retaining barriers. Construction cost estimates are compared to reasonableness allowances in this report to identify which barrier configurations are reasonable from a cost perspective. The design of noise barriers presented in this report is preliminary and has been conducted at a level appropriate for environmental review and not for final design of the project. Preliminary information on the physical location, length, and height of noise barriers is provided in the Noise Study Report.

Secondary Effects of Abatement

- Biological Impacts. No impacts are anticipated with construction of the sound barriers proposed for the project, as the proposed sound barriers would not create any additional impacts to the already evaluated impacts on Biological Resources.
- Water Quality. The proposed project design will incorporate permanent erosion control elements, primarily permanent vegetation, to ensure that storm water runoff does not cause soil erosion. Implementation of the project-specific long-term mitigation measures, design BMPs, and if necessary, treatment BMPs, would also reduce or avoid impacts on water quality. It should be noted that, due to the lack of surface water resources in the immediate project area, long-term water quality impacts only have the potential to occur at nearby storm drains.
- Visual Impact Assessment. The construction of the sound barriers may create temporary visual and aesthetic disturbances associated with construction activities. Exposed surfaces, construction debris, and equipment and truck traffic may temporarily impact views adjacent to the sites of the sound barriers.
- Hazardous Waste. Review of Environmental Data Research, Inc. report and agency databases did not identify any sites with potential to impact the project.
- Cultural Resources. Cultural resources, as used herein, refer to all historical and archaeological resources. Sound barrier construction is not anticipated to go deeper than 16 feet. If there is

no artificial fill beneath the road, this work has the potential to encounter the Modesto Formation.

The noise abatement decision presented in this report is based on project alignments and profiles contained herein, which may be subject to change. As such, the physical characteristics of noise abatement described herein also may be subject to change. If pertinent parameters change substantially during the final project design, the preliminary noise abatement decision may be changed or eliminated from the final project design. A final decision to construct noise abatement will be made upon completion of the project design. The noise abatement decisions presented herein were included in the DED, which was circulated for public review.

7. OTHER CONSIDERATIONS AS APPROPRIATE

A. PUBLIC HEARING PROCESS

Initial public meetings were held in November 2004 to present the scope of interchange improvements. Broad community support has been received for the interchange modification. No known opposition exists.

Another public information meeting was held in November 2009. The purpose of the public information meeting was to give members of the public and interested parties an opportunity to review the design concepts for each alternative, project information, and environmental process displays and to provide comments or concerns. Below is a brief summary of the written or dictated comments received at the public information meeting:

- *Concentrate on Kiernan and do it right.*
- *Do not build a Hammett Road Interchange.*
- *Consider bicycle and pedestrian needs.*
- *Extend Ladd Road to Route 99/Hammett Road Interchange.*
- *Widen State Route 99.*
- *Avoid impacts to agricultural land.*
- *Avoid urban sprawl.*
- *Synchronize traffic lights.*
- *Consider groundwater issues.*
- *Design Kiernan Road Interchange for the North County Corridor.*
- *Improve Kiernan Road Interchange.*
- *Widen Kiernan.*
- *Improve Pelandale.*
- *For Route 99/Kiernan, select Alternative 2.*
- *For Route 99/Hammett, select Alternative 2.*
- *For Route 99/Hammett, select Alternative 3.*
- *“No” against it all.*
- *Concern about impact on Salida.*
- *Open frontage road/parking lot at American Chapman College.*
- *Please get information onto the Web.*
- *Make the fences at the drainage ditches brown.*
- *Make a shared turn lane at Kiernan in Alternative 2.*

Caltrans, in cooperation with Stanislaus County, held a Public Hearing on Monday, December 6, 2010, at the Nick W. Blom Salida Regional Library, 4835 Sisk Road, Salida, California 95368. Seventy-eight people signed in at the door. The Public Hearing was conducted as an open house - presentation - questions and comments - open house. This interactive format provided an opportunity for members of the public to review maps and other exhibits, hear an overview of the project by the consultant team's project manager, and ask questions or make comments after the presentation. Attendees were encouraged to submit their comments at a comments station with blank comment sheets and pens. Attendees could also dictate their comments to a court reporter. Information stations with project maps, graphics, and exhibits were placed around the room. The information stations provided information on alternatives, traffic, environmental issues, and right-of-way. Project team members were available at each station to explain the displays, answer questions, and hear comments. General areas of comment were:

- *Opposition to Alternative 1*
- *Opposition to Alternative 2*
- *Support for Alternative 1*
- *Support for Alternative 2*
- *Noise and need for sound wall*
- *Environmental/pollution issues*
- *Effect on businesses*
- *Expense of the project.*
- *Funding source?*
- *Quality of life during and after construction*
- *Preferable would be a southbound elevated off-ramp*
- *Safety*
- *Need to consider future traffic*
- *Need to finish Pelandale properly*
- *Placing/timing stop lights to better meet traffic flow needs*
- *Pedestrian considerations*
- *Negative impact on agriculture*
- *Effect on Salida ingress/egress*

B. ROUTE MATTERS

The proposed project does not introduce a new interchange on the route. Instead it will replace the existing interchange with an operationally improved configuration.

C. PERMITS

The anticipated permits, reviews, and approvals will be required for project construction, as shown in **Table 10**.

TABLE 10 ANTICIPATED PERMITS	
AGENCY	PERMIT / APPROVAL
County of Stanislaus	Encroachment Permit to construct within County right of way. Contractor to obtain prior to construction.
Central Valley Regional Water Quality Control Board	Water Discharge Permit and Section 401 Water Quality Certification. Review and approval of stormwater discharge treatments. To be obtained prior to construction.
Caltrans	Encroachment Permit to construct within State right of way. Contractor to obtain prior to construction.

D. OTHER AGREEMENTS

A Construction and Maintenance agreement will be required from the Union Pacific Railroad for activities on Broadway Avenue adjacent to UPRR right of way.

Revised Electrical and Maintenance Agreements will required for traffic signals on Route 219 (Kiernan Avenue) at the Route 99 interchange ramps and at Sisk Road.

A revised Freeway Maintenance Agreement will be required to be executed between Caltrans and the County.

E. INVOLVEMENT WITH A NAVIGABLE WATERWAY

There are no crossings that will affect navigable waterways in this project.

F. TRANSPORTATION MANAGEMENT PLAN

A Transportation Management Plan (TMP) Checklist was prepared in the PSR phase to identify traffic control strategies necessary to reduce vehicle delays during construction. No significant changes have occurred to the design since the PSR, therefore District 10 Traffic Management Branch has approved the TMP for use in this Project Report.

The TMP Checklist is provided in **Attachment F**. It is anticipated that temporary lane closures will be required for setting K-rail and lane width reductions will be required for work zones. Provision is made for changeable message signs, K-rail and temporary traffic screens during construction. The District 10 Traffic Management Unit will be consulted to develop concise TMP limits and requirements during PS&E phase.

G. COOPERATIVE AGREEMENTS

A cooperative agreement for final design has been executed with Stanislaus County. Final design would be prepared by consultants under contract to the County. All right of way acquisition and condemnation proceedings would be done by the County, with Caltrans oversight. The County would advertise and administer project construction. The approved Cooperative Agreement is provided in **Attachment G**.

H. STAGE CONSTRUCTION

Stage construction and traffic handling plans will be developed during the PS&E stage. It is generally anticipated that lane shifts are needed to place temporary concrete barriers on the outside edge of the existing freeway lanes in order to construct the auxiliary lanes and pump station. Temporary freeway closures (overnight) will be required to demolish the existing Kiernan bridge and to place falsework over Route 99 for the new Kiernan overcrossing. Detours will use the existing on and off ramps.

The construction of the Kiernan Avenue/Route 219 overcrossing bridge would be constructed in two phases. Under the first phase, temporary pavement would be provided for standard transition of Kiernan Avenue traffic to the south side of the existing bridge. Once traffic is shifted, partial bridge demolition and construction of the north side of the bridge and the work on the Route 99 pump station will be completed. After completion of the north half of the Kiernan overcrossing, all traffic lanes on Kiernan Avenue/Route 219 would be shifted to the new bridge and roadway. Once traffic is shifted, the south portion of bridge would be demolished and the new south bridge over Route 99 would be completed. Once this construction is complete, traffic would be shifted to its final configuration on Kiernan Avenue. All ramps will need to be temporarily reduced to one lane, separated by concrete barrier in order to allow for ramp widening.

The construction of the auxiliary lane on Route 99 between Kiernan Avenue/Route 219 and Pelandale Avenue will require that all travel lanes on Route 99 be reduced to 11 ft. in width. A temporary Type K rail would be placed at the existing right edge of travel way. Construction of roadway widening would be completed. After construction, traffic would be shifted back to the lane widths and final pavement overlay would be provided.

I. ACCOMMODATION OF OVERSIZE LOADS

When completed and also during construction, the project will not present any new restrictions or any improvement with respect to the oversize loads. The existing non-standard vertical clearance of the Kiernan Avenue/Route 219 bridge will be improved to standard 16.5 ft.

J. GRAFFITI CONTROL

The project is within Stanislaus County urbanized area, and is determined to be in a graffiti-prone area. Appropriate graffiti control measures will be determined during the PS&E process.

K. OTHER APPROPRIATE TOPICS

PS&E, Right of Way and Construction. Per the Cooperative Agreement, the County of Stanislaus Public Works Department will be responsible for final design, right of way acquisition and construction of the project, with Caltrans oversight.

8. PROGRAMMING

A. PROGRAMMING

The 2011 Regional Transportation Plan, adopted in July 2010, shows the project as Tier 1, with \$66.1 million in fiscally constrained funding for completion by 2015.

The County of Stanislaus has made application to the California Transportation Commission for \$46,483,000 in funding for the project with savings from the Route 99 Bond Program. This funding will require the project to be accelerated and under construction by the end of 2012. Proposed project funding in the application is as follows:

Phase	Local Funding	SR-99 Bond Funding	Total
PA/ED	\$ 1,048,000	\$ 0	\$ 1,048,000
PS&E	\$ 4,370,000	\$ 0	\$ 4,370,000
R/W	\$ 2,120,000	\$ 8,483,000	\$10,603,000
CON	\$12,828,000	\$38,000,000	\$50,828,000
Total	\$20,366,000	\$46,483,000	\$66,849,000

Additional funding for the Route 99 auxiliary lanes is being sought from SHOPP savings. Any funds needed to implement additional phases of work or, escalation or higher cost components will be provided by local funding.

B. COST ESTIMATES

Preliminary cost estimates have been prepared in 2010 dollars for the Preferred Alternative and are provided in **Attachment H**. Cost estimates include auxiliary lanes to and from Pelandale Avenue to Kiernan Avenue on Route 99. The current and estimated escalated values for all project components for Alternative 1 are provided in **Table 11**: with escalation rate of 5% for support costs and 3% for construction costs.

COMPONENT	2010 DOLLARS	BEGINNING OF COST	ESTIMATED ESCALATED COST
PA/ED	\$1,048,000	9/1/2009	\$1,048,000
PS&E	\$4,081,000	1/1/2010	\$4,081,000
R/W Support	\$ 527,000	6/1/2011	\$ 553,000
R/W Capitol	\$5,274,000	6/1/2011	\$5,795,400
Constr. Support	\$4,081,000	10/1/2012	\$4,574,000
Construction	\$40,806,000	8/1/2012	\$43,724,000
TOTAL COST	\$55,817,000		\$59,775,400

B. SCHEDULE

Table 12 provides the proposed schedule for delivery of project milestones for the Preferred Alternative:

TABLE 12 MILESTONE SCHEDULE		
<u>Item</u>	<u>Milestone</u>	<u>Date</u>
1	M010 - APPROVE PID	Jun-09
2	M015 – PROGRAM PROJECT	Jun-09
3	M020 - BEGIN ENVIRONMENTAL	Jun-09
4	M040 - BEGIN PROJECT REPORT	Jun-09
5	M100 - APPROVE DPR	Nov-10
6	M120 - CIRCULATE DED	Dec-10
7	M160 - APPROVE FED	May-11
8	M200 - PA & ED	May-11
11	M210 - BEGIN DESIGN (BY COUNTY)	Sep-10
12	M224 - RIGHT OF WAY MAPS	May-11
13	M225 - RIGHT OF WAY APPRAISALS	Jun-11
14	M275 - GENERAL PLANS	Apr-11
15	M311 - 30% CONST REVIEW COMPLETED	Jun-11
16	M313 - 60% CONST REVIEW COMPLETED	Nov-11
17	M315 - 95% CONST REVIEW COMPLETED	Feb-12
18	M377 - PS&E TO DOE	May-12
19	M378 - DRAFT STRUCTURES PS&E	Feb-12
20	M380 - PROJECT PS&E	Jul-12
21	M410 - RIGHT OF WAY CERTIFICATION	Jul-12
22	M460 - READY TO LIST	Aug-12
23	M480 – ADVERTISE	Aug-12
24	M495 - AWARD	Oct-12
25	M500 - APPROVE CONSTRUCTION CONTRACT	Nov-12
26	M600 - CONTRACT ACCEPTANCE	Apr-15
27	M700 – FINAL REPORT	Oct-15
28	M800 – END PROJECT	Nov-15

9. REVIEWS

- The Project Study Report for the interchange gained District Approval in June 6, 2009.
- The Traffic Forecast Report was approved on March, 10 2010.
- The Traffic Operations Report was approved on June 6, 2010.
- Advisory Design exceptions for Alternative 1 were approved on September 28, 2010.
- Mandatory Design exceptions for Alternative 1 were approved by Headquarters Design on September 29, 2010.
- The Storm Water Data Report for Alternative 1 was approved on May 10, 2011.
- The Preliminary Drainage Report for Alternative 1 was approved on May 6, 2010.
- The PID phase TMP was reviewed by Traffic Management and approved for use in the Project Report on August 10, 2010.

10. PROJECT PERSONNEL

Questions or comments regarding this Project Study Report may be directed to:

Caltrans - District 10

1976 East Martin Luther King Jr. Blvd, Stockton, California 95205

- Christina Hibbard, District Project Manager (209) 948-1345
- Vu Nguyen, District Traffic Operations (209) 603-5126
- Jose Huerta, District Design Oversight (209) 948-7902

Stanislaus County

1010 10th Street, Suite 3500, Modesto, CA 95354

- Matt Machado, Public Works Director (209) 525-7581
- Chris Brady, Senior Engineer (209) 262-5887

Rajappan & Meyer Consulting Engineers, Inc. (Management, Civil and Structural)

1038 Leigh Avenue, San Jose, CA 95126

- Keith Meyer, Principal (408) 280-2772
- Bo Gao, Civil Design Manager
- Kianoush Harirsaz, Structural Design Manager

Fehr & Peers Transportation Consultants (Traffic)

100 Pringle Avenue, Suite 600 Walnut Creek, CA 94596

- Ryan McClain , Principal (925) 930-7100
- Dan Hennessey, Traffic Engineer

LSA Associates, Inc. (Environmental)

4200 Rocklin Road, Suite 11B, Rocklin, California 95667

- Bill Mayer, Principal (916) 630-4600
- Edward Heming, Environmental Manager

11. ATTACHMENTS

The following appendices are attached with the Draft Project Report (DPR)

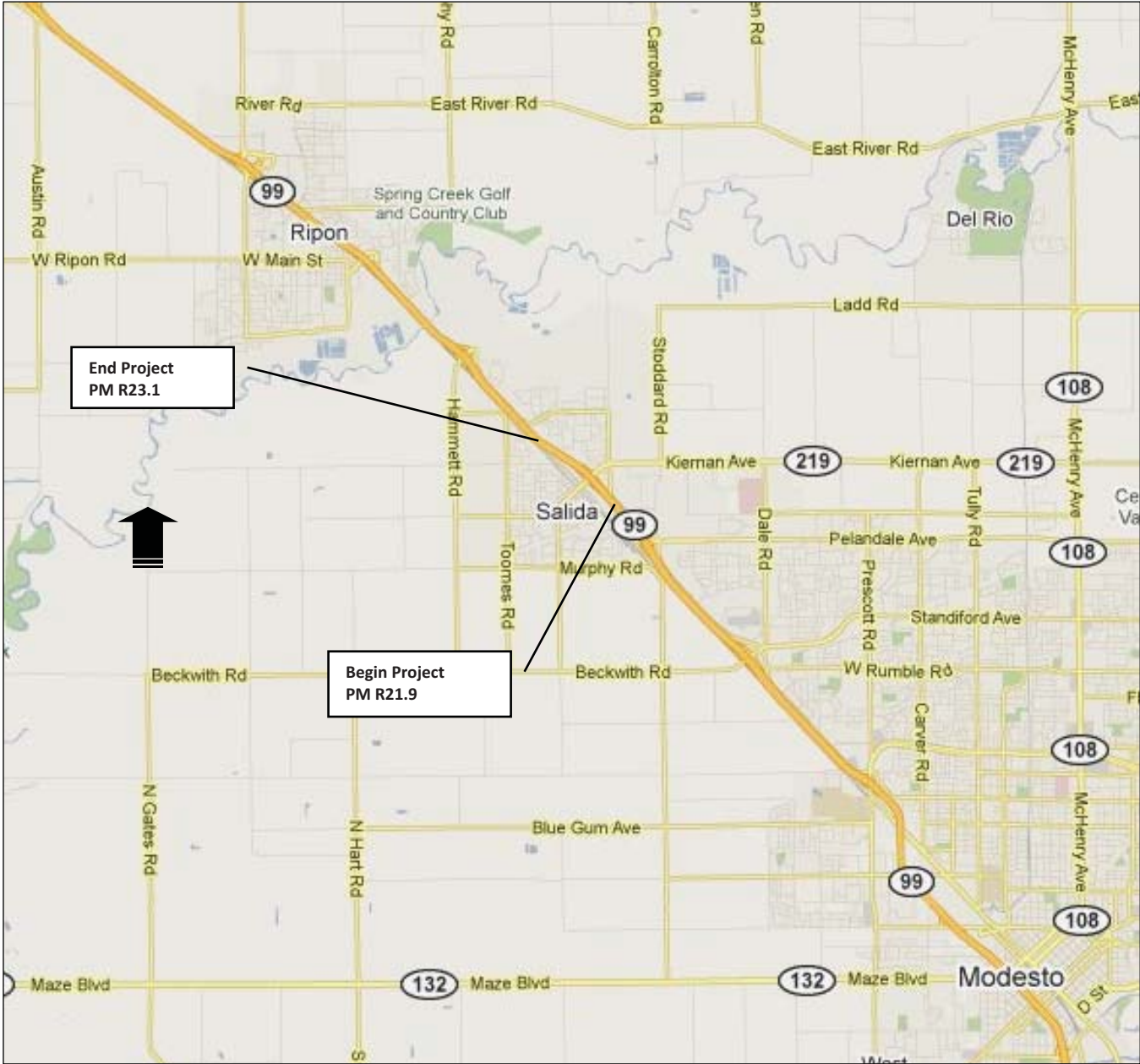
- A. Vicinity Map
- B. Existing and 2035 AM and PM Peak Hour Traffic Volumes
- C. Alternative 1 Project Geometric Plan, Profile And Typical Sections, Bridge APS
- D. Storm Water Data Report (SWDR) Cover Sheet
- E. Right Of Way Data Sheet
- F. Transportation Management Plan (TMP) Checklist
- G. Cooperative Agreement
- H. Project Cost Estimate
- I. Final Environmental Document

A. Vicinity Map

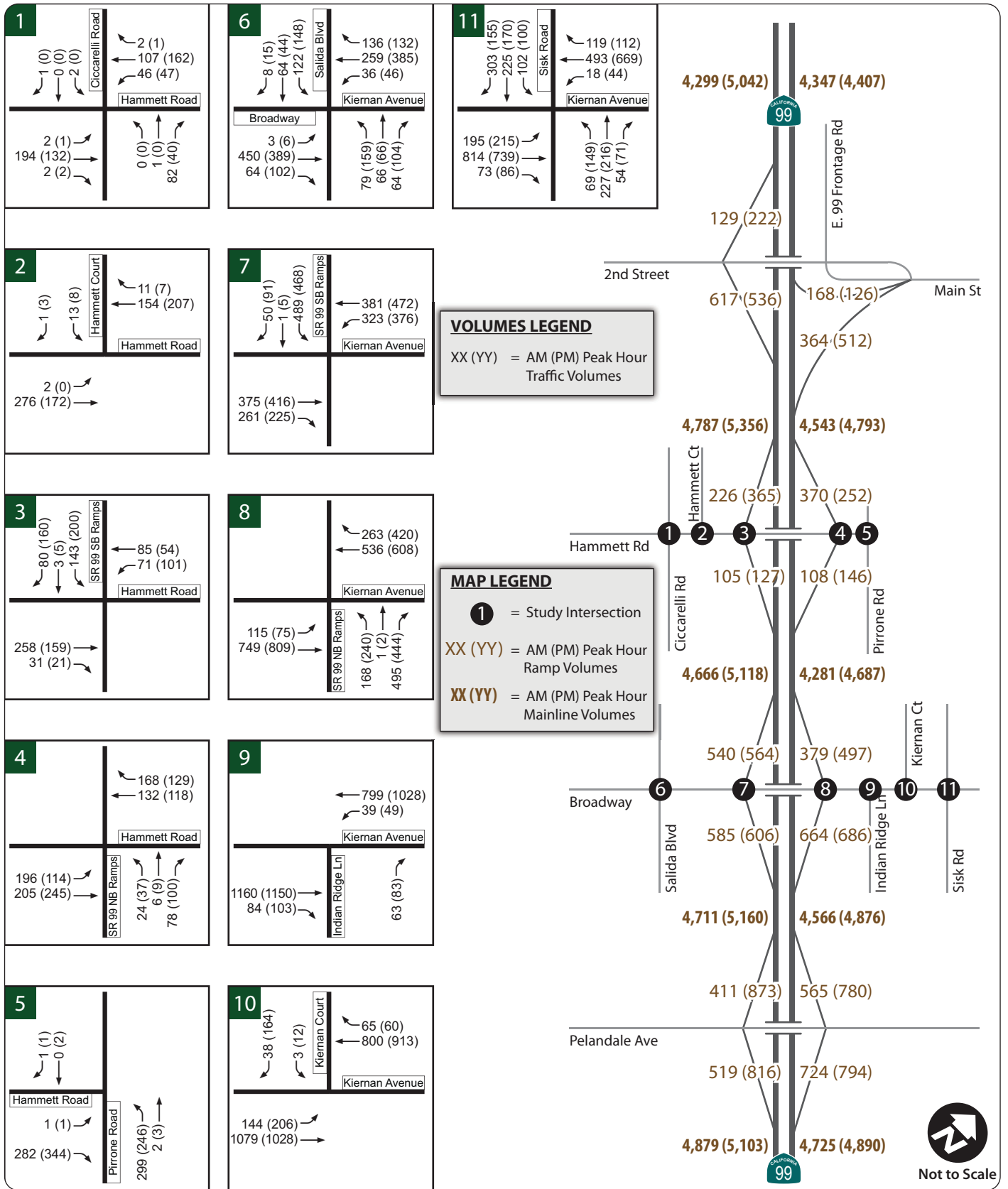
Attachment A

Project Vicinity Map

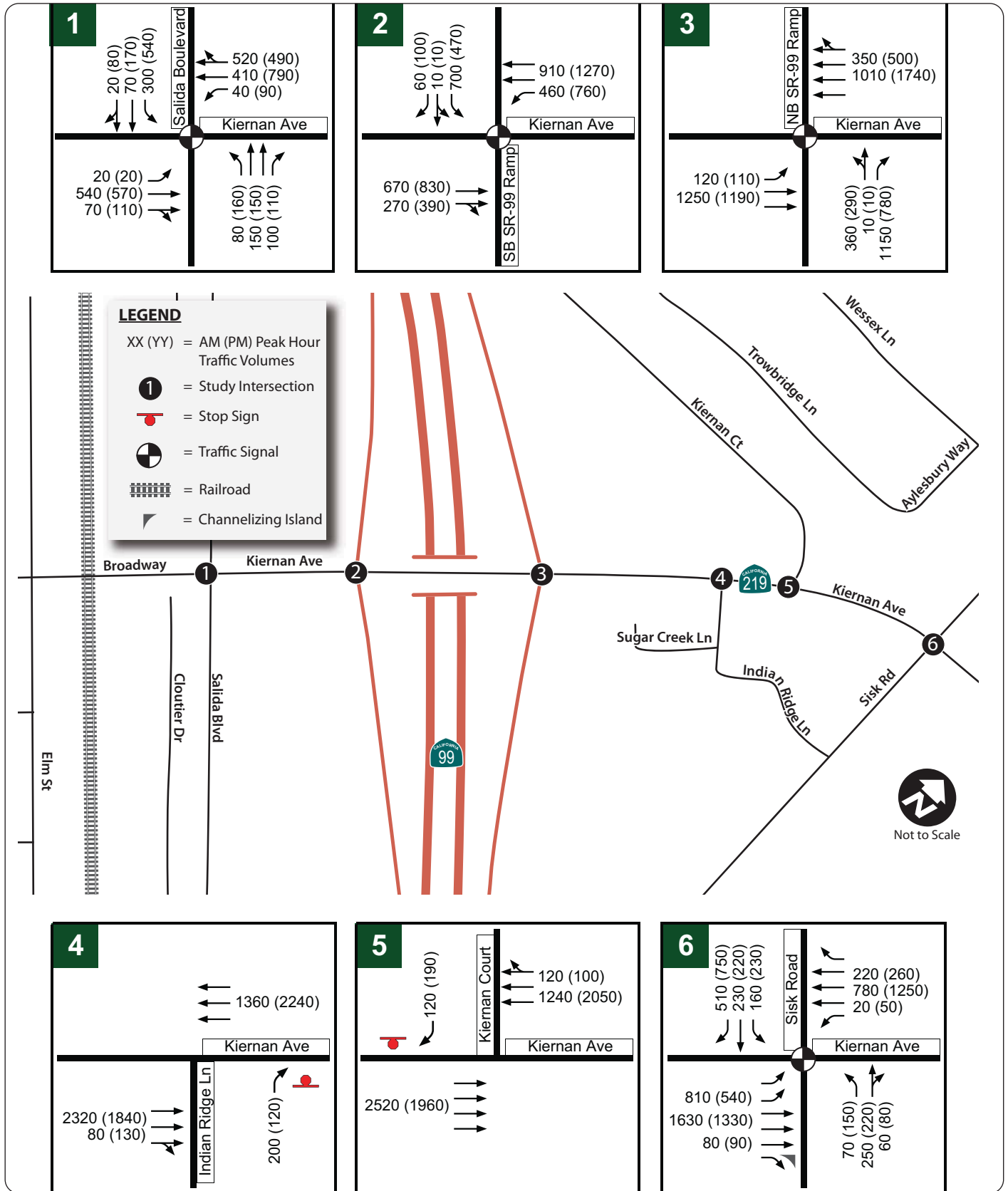
Route 99/Route 219 (Kiernan Avenue) Interchange



**B. Existing and 2035 AM and PM Peak
Hour Traffic Volumes**

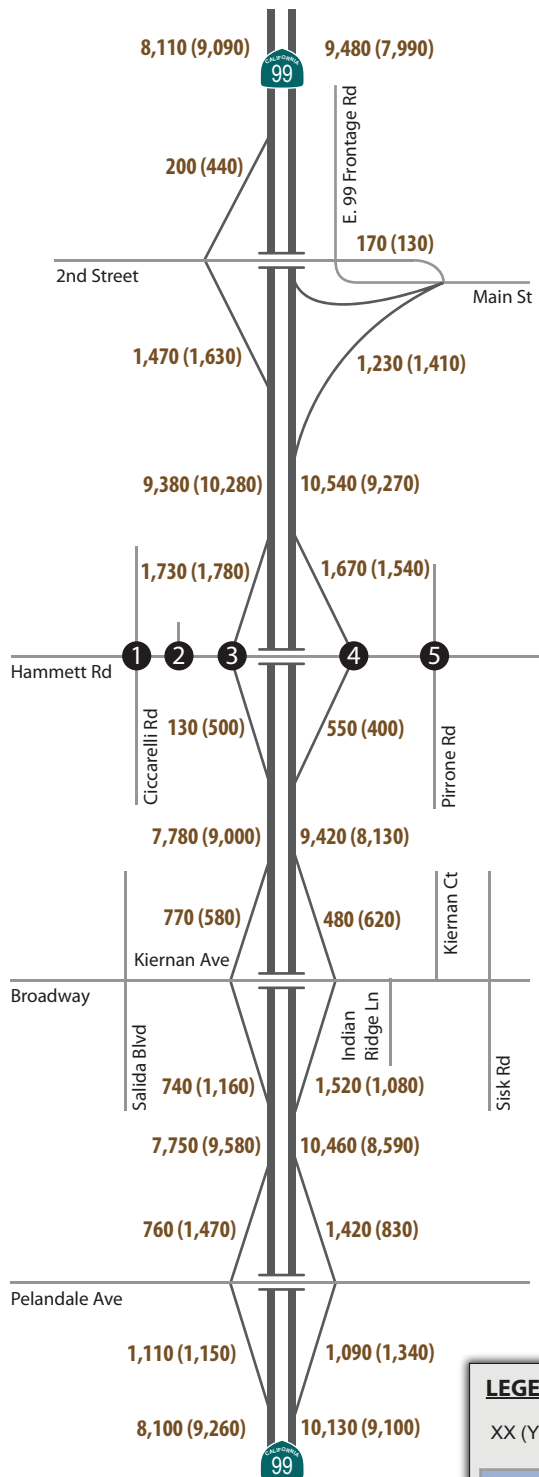


SR 99 / Kiernan Avenue / Hammett Road Interchanges PA/ED

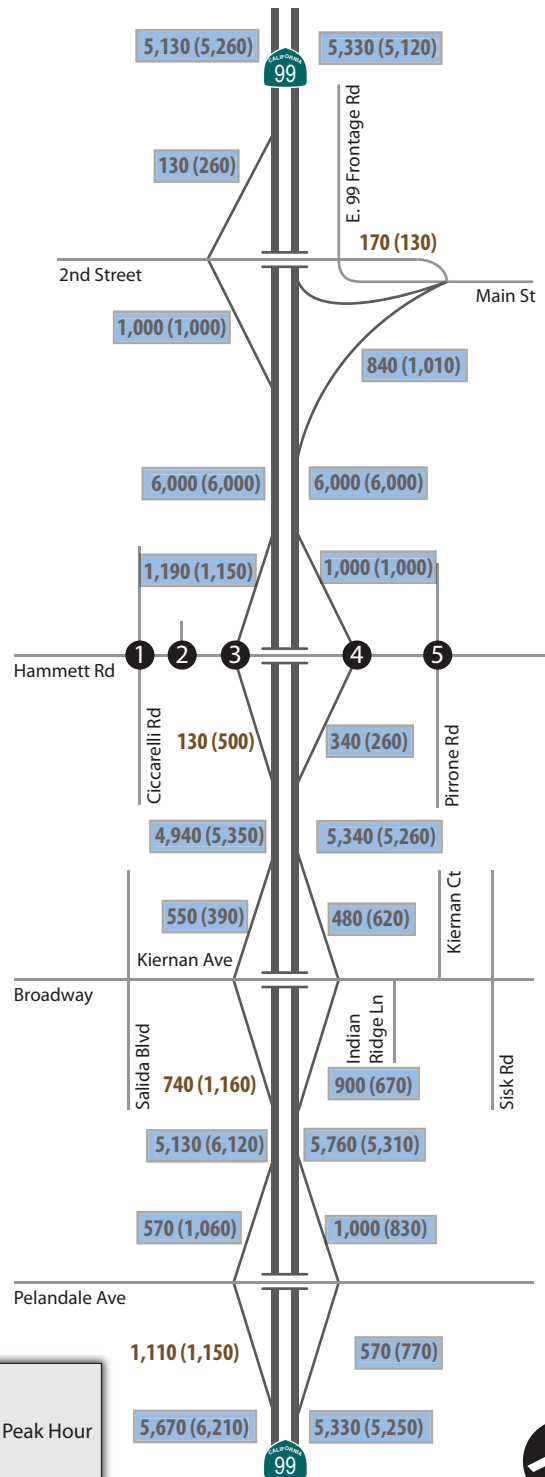


SR 99 / Kiernan Avenue Interchange PA/ED

Unconstrained Demand Volumes



Constrained Volumes



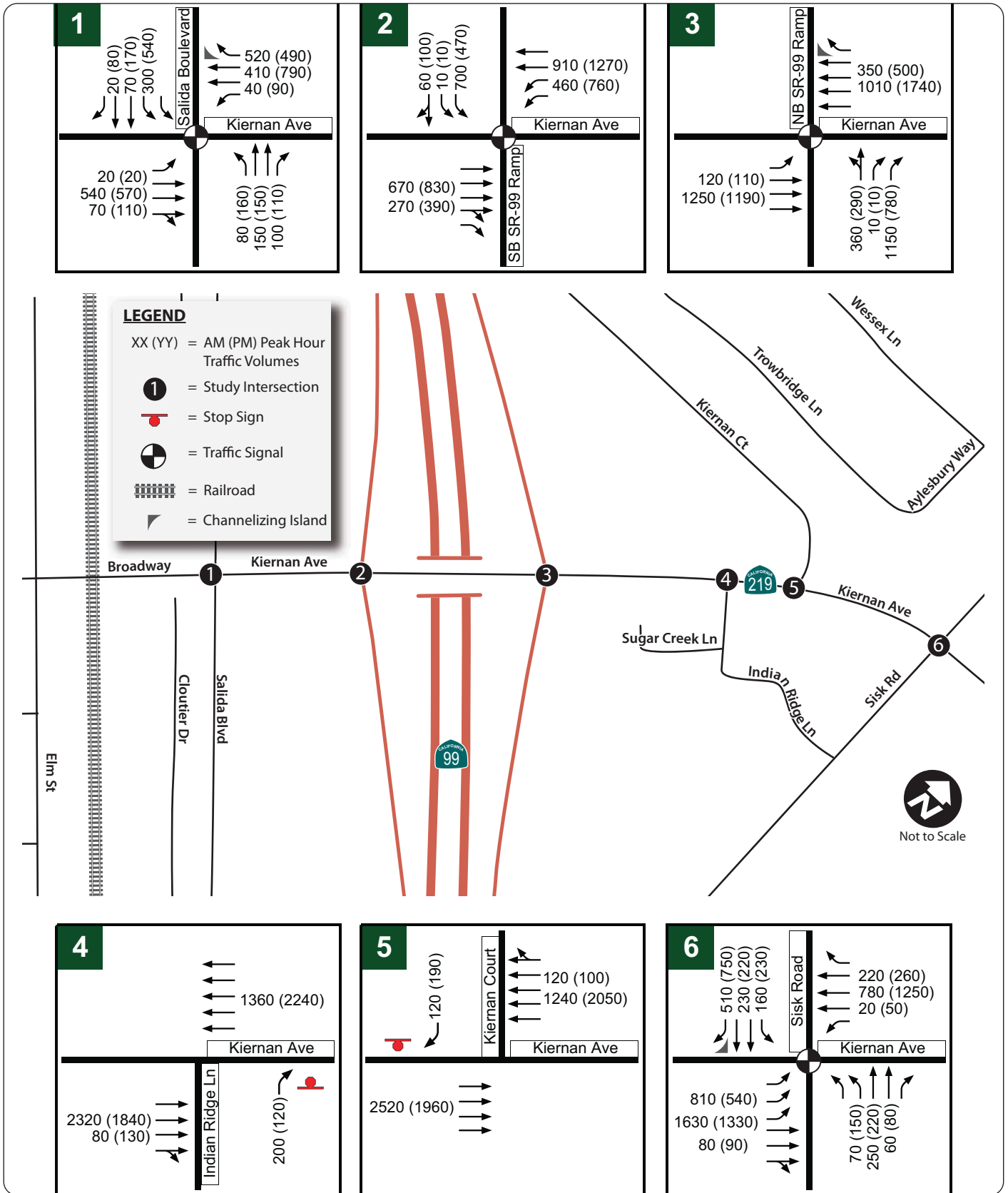
LEGEND

XX (YY) = AM (PM) Peak Hour Volumes

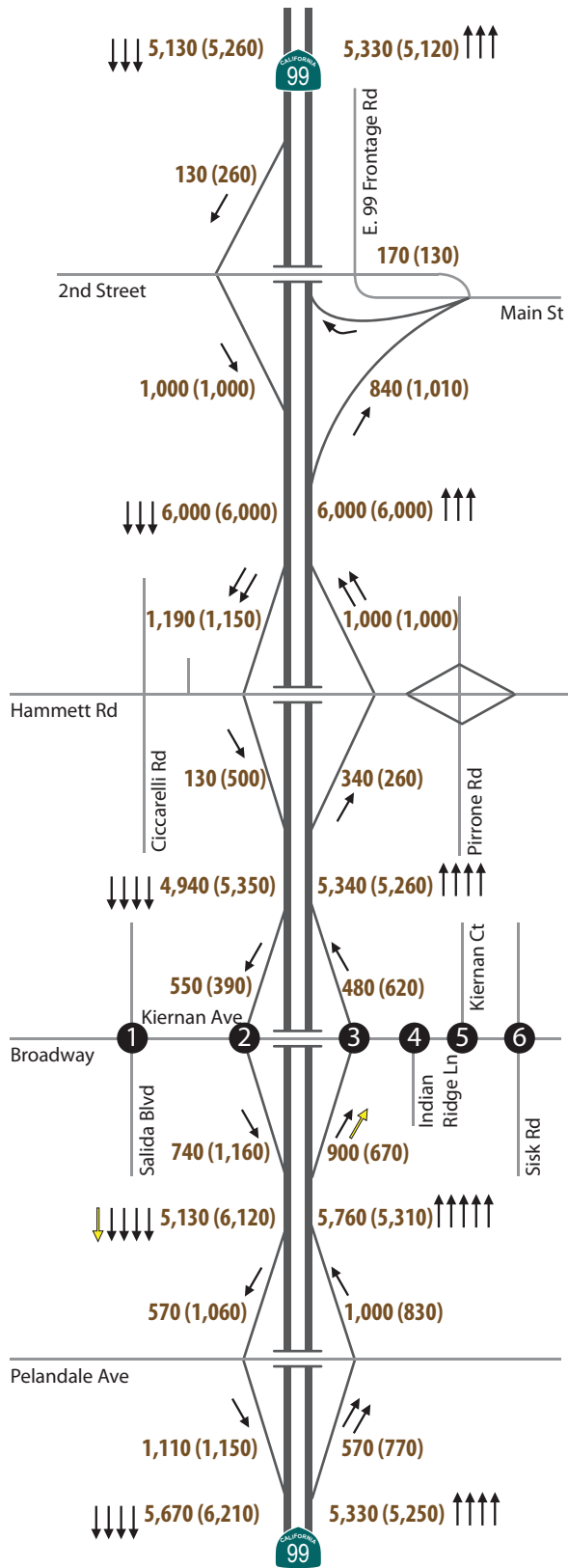
XX (YY) = Constrained Volumes



SR 99 / Kiernan Avenue Interchange PA/ED



SR 99 / Kiernan Avenue Interchange PA/ED



SR 99 / Kiernan Avenue Interchange PA/ED

**C. Preferred Alternative Geometric Plan,
Profile And Typical Sections**

ADVISORY DESIGN EXCEPTION

- A1** REFERENCE: HDM SECTION 105.4(2)
ADVISORY STD: 2 RAMPS SHOULD BE INSTALLED AT EACH CORNER
PROVIDED: 1 RAMP AT CORNER OF SIDEWALK
- A2-1** REFERENCE: HDM SECTION 504.7
ADVISORY STD: WEAVING SECTIONS IN URBAN AREAS SHOULD BE DESIGNED FOR LOS C OR D.
PROVIDED: WEAVING LOS F
- A2-2** REFERENCE: HDM SECTION 504.7
ADVISORY STD: WEAVING LENGTH SHOULD NOT BE LESS THAN 1600 FEET
PROVIDED: 1300 FEET

MANDATORY DESIGN EXCEPTION

- M1** REFERENCE: HDM SECTION 504.3(3)
MANDATORY STD: THE MINIMUM DISTANCE BETWEEN RAMP INTERSECTION AND LOCAL ROAD INTERSECTION SHALL BE 400 FEET
PROVIDED: 200 FEET
- M2** REFERENCE: HDM SECTION 501.3
MANDATORY STD: THE MINIMUM INTERCHANGE SPACING SHALL BE ONE MILE IN URBAN AREAS.
PROVIDED: 0.80 MILE

- LEGEND**
- EXIST R/W
 - PROPOSED COUNTY R/W
 - PROPOSED CALTRANS R/W
 - RETAINING WALL
 - SOUND WALL
 - ▨ CONTRASTING SURFACE TREATMENT

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	TANGENT	NORTHING	EASTING
1	1325.35	4750.00	15°59'12"	667.01	2081489.74	6393297.52
2	783.15	1049.87	42°44'24"	410.80	2081889.06	6394405.20
3	300.29	2000.00	08°36'09"	150.42	2080184.01	6393667.58
4	483.30	2000.00	13°50'44"	242.83	2081547.91	6393010.62
5	167.10	3000.00	03°11'29"	83.57	2082035.85	6392561.40
6	189.16	2000.00	05°25'08"	94.65	2081845.37	6392918.71
7	222.89	3000.00	04°15'25"	111.50	2080686.66	6393829.10
8	167.10	3000.00	03°11'29"	83.57	2080050.14	6394487.12
9	240.31	3000.00	04°35'22"	120.22	2080861.47	6394028.97

YEAR 2035
AM Volume (PM Volume)

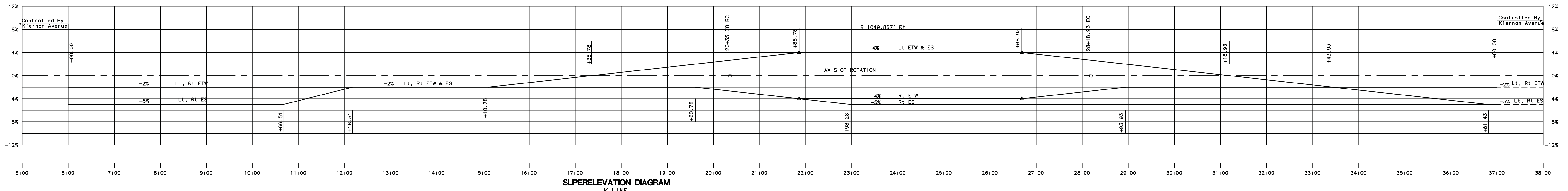
GEOMETRIC APPROVAL DRAWING
ROUTE 99/KIERNAN AVENUE INTERCHANGE
ALTERNATIVE 1
MODIFIED COMPACT DIAMOND (TYPE-1) INTERCHANGE
PROJECT ID: 10 0000 0100

Rajappan & Meyer
CONSULTING ENGINEERS INC
1038 Leigh Avenue, Suite 100 San Jose, CA 95128
Phone: 408.280.2772 Fax: 408.280.6803

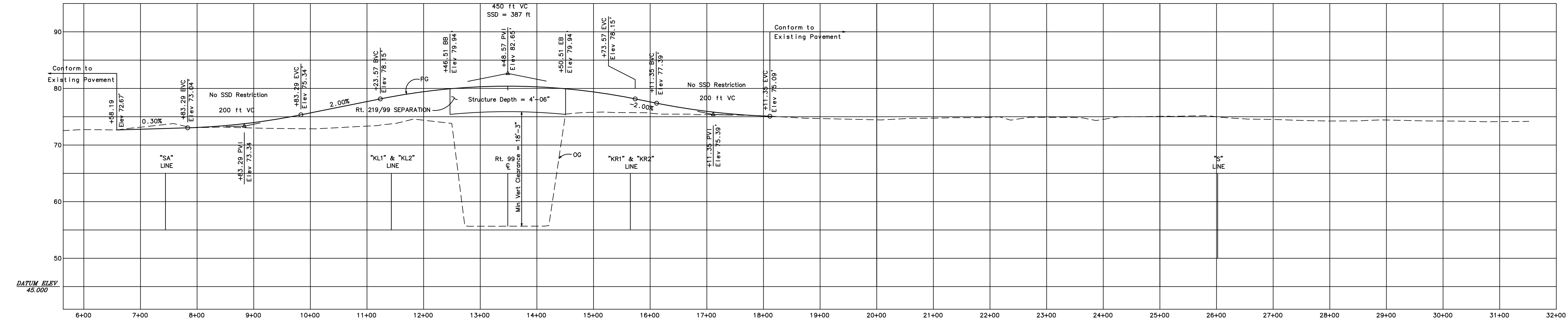
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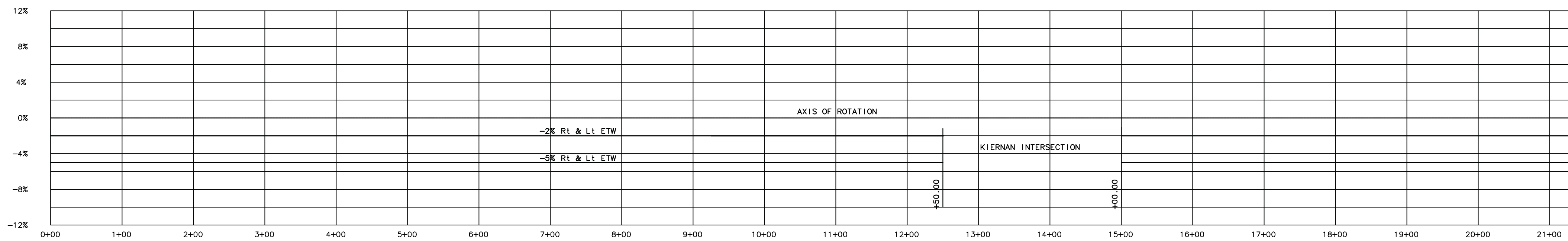
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SHEET _____ OF 1
DWG NAME: _____
LAYOUT: _____



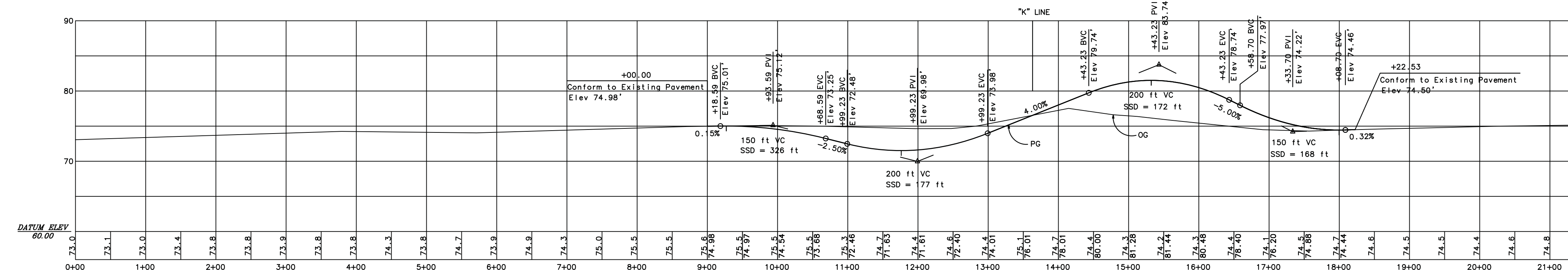
SUPERELEVATION DIAGRAM
K LINE
KIERNAN AVENUE
Scale: Horizontal 1"=100'



PROFILE
K LINE
KIERNAN AVENUE
Horizontal 1" = 100'
Scale: Vertical 1" = 10'

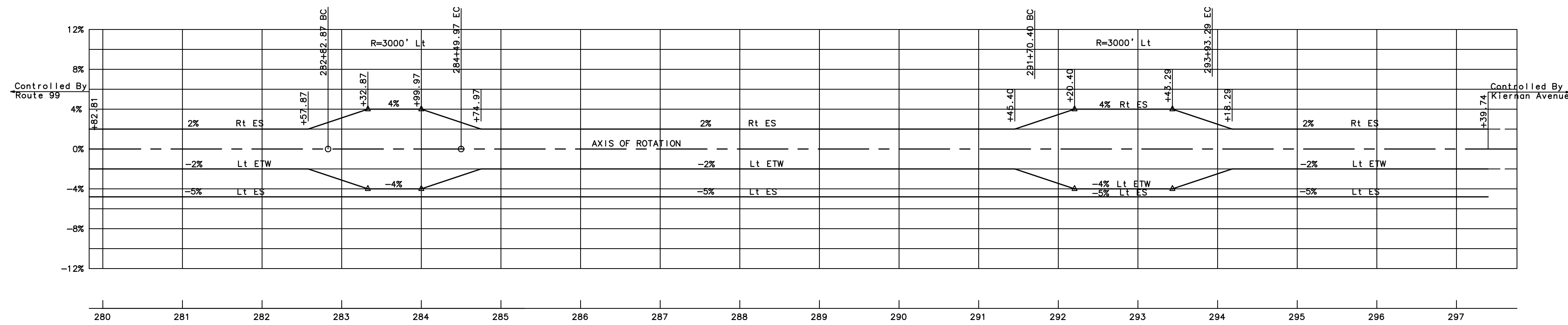


SUPERELEVATION DIAGRAM
S LINE
SISK ROAD
Horizontal 1"=100'

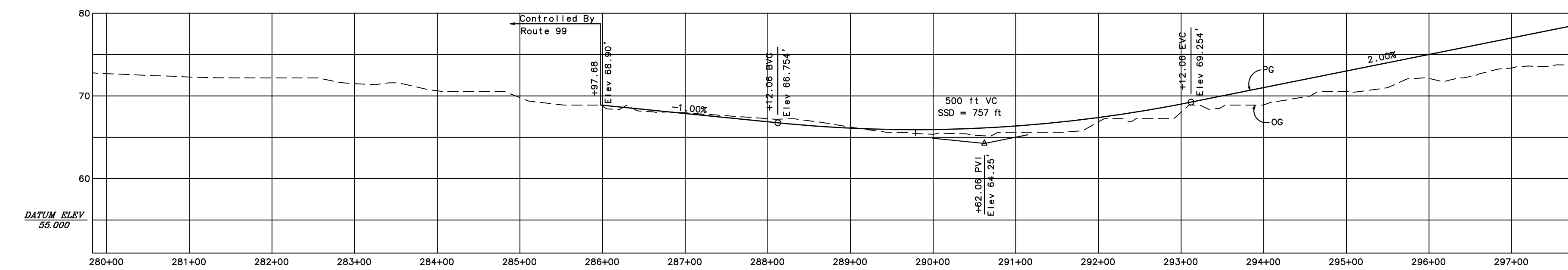


PROFILE
S LINE
SISK ROAD
Horizontal 1" = 100'
Scale: Vertical 1" = 10'

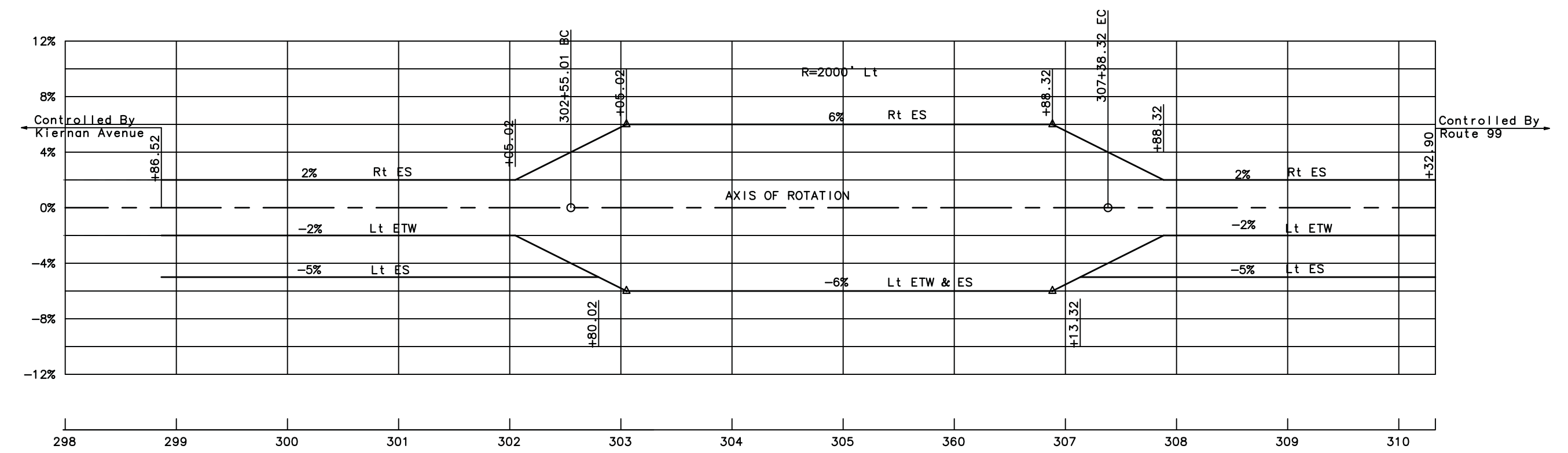
PROFILE AND SUPERELEVATION ROUTE 99/KIERNAN AVENUE INTERCHANGE ALTERNATIVE 1 MODIFIED COMPACT DIAMOND (TYPE-1) INTERCHANGE PROJECT ID: 10 0000 0100		 Rajappan & Meyer CONSULTING ENGINEERS INC 1038 Leigh Avenue, Suite 100 San Jose, CA 95128 Phone: 408.280.2772 Fax: 408.280.6803	
DESIGNED BY IT	APPROVED ON	PROJECT NO.	SHEET
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DATE 07/16/10	SCALE AS SHOWN	DWG NAME	OF
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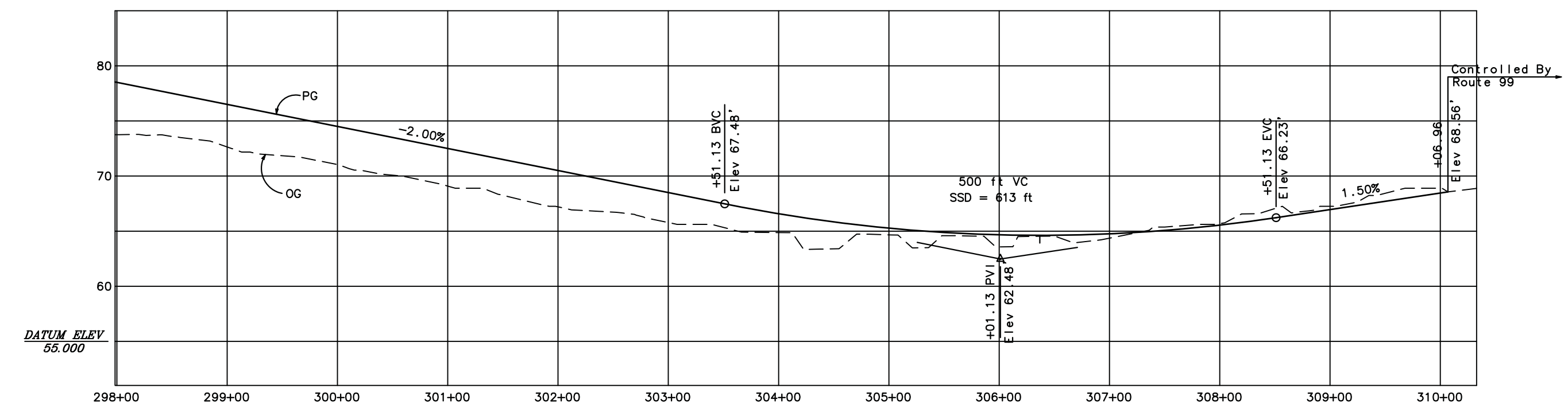
SUPERELEVATION DIAGRAM
 KL1 LINE
 SB ON RAMP
 Scale: Horizontal 1"=100'



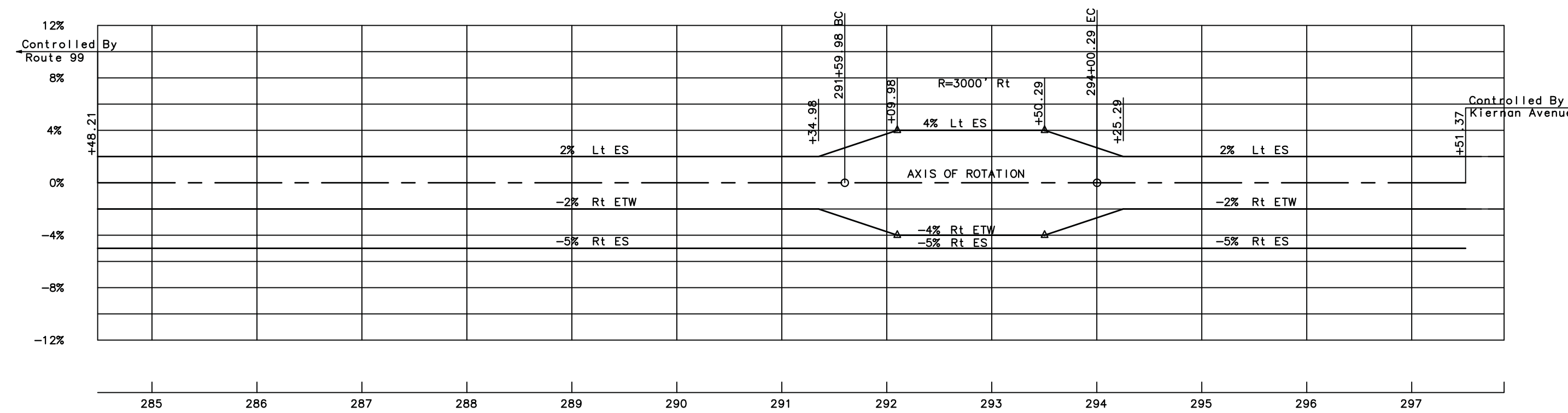
PROFILE
 KL1 LINE
 SB ON RAMP
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 Vertical 1" = 10'



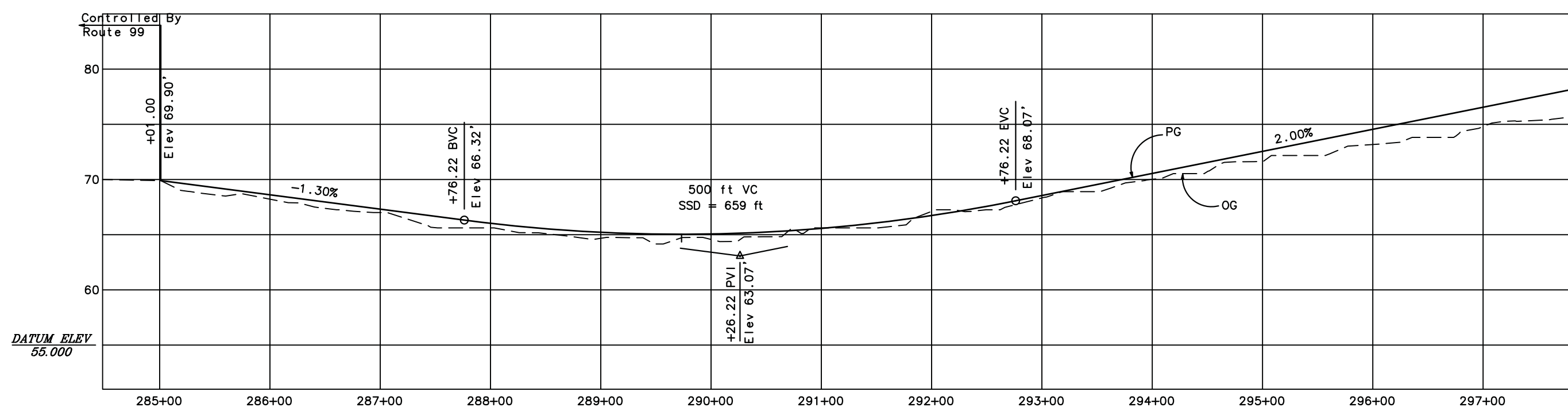
SUPERELEVATION DIAGRAM
 KL2 LINE
 SB OFF RAMP
 Scale: Horizontal 1"=100'



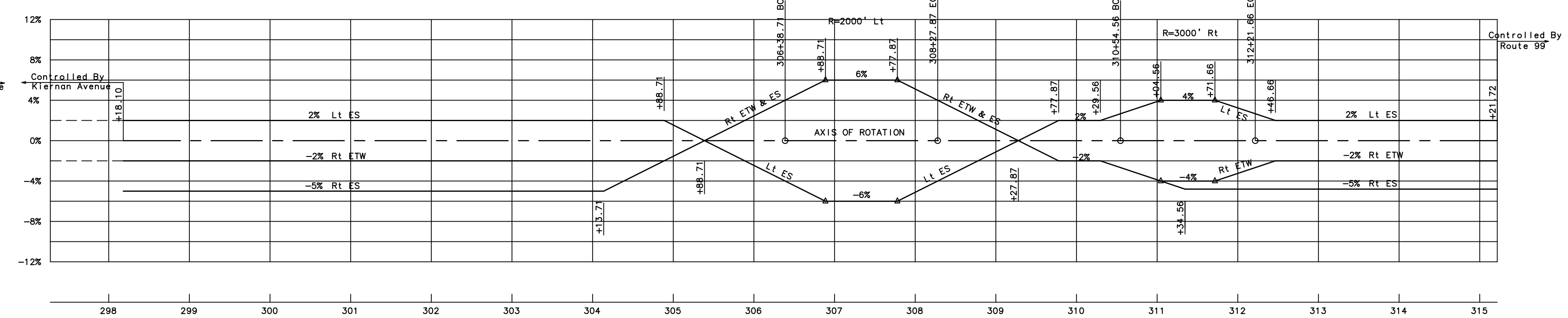
PROFILE
 KL2 LINE
 SB OFF RAMP
 Scale: Horizontal 1" = 100'
 Vertical 1" = 10'



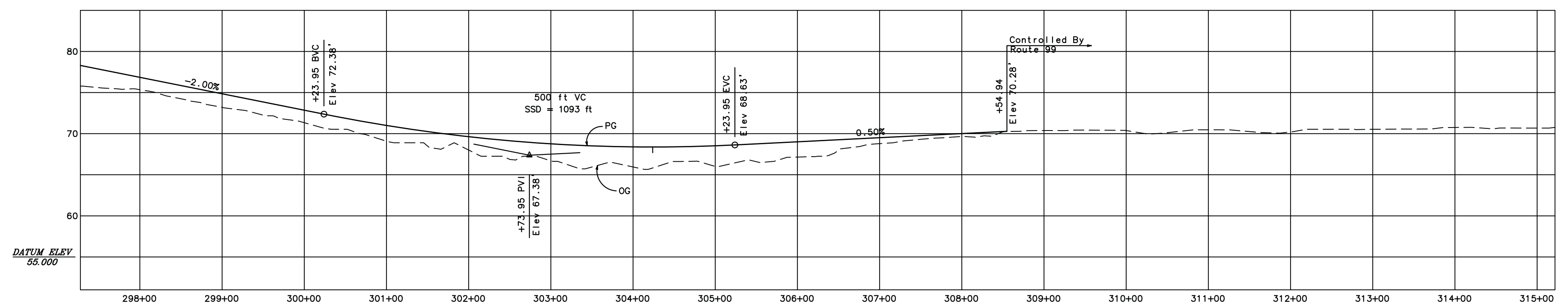
SUPERELEVATION DIAGRAM
 KR1 LINE
 NB OFF RAMP
 Scale: Horizontal 1"=100'



PROFILE
 KR1 LINE
 NB OFF RAMP
 Scale: Horizontal 1" = 100'
 Vertical 1" = 10'



SUPERELEVATION DIAGRAM
 KR2 LINE
 NB ON RAMP
 Scale: Horizontal 1"=100'

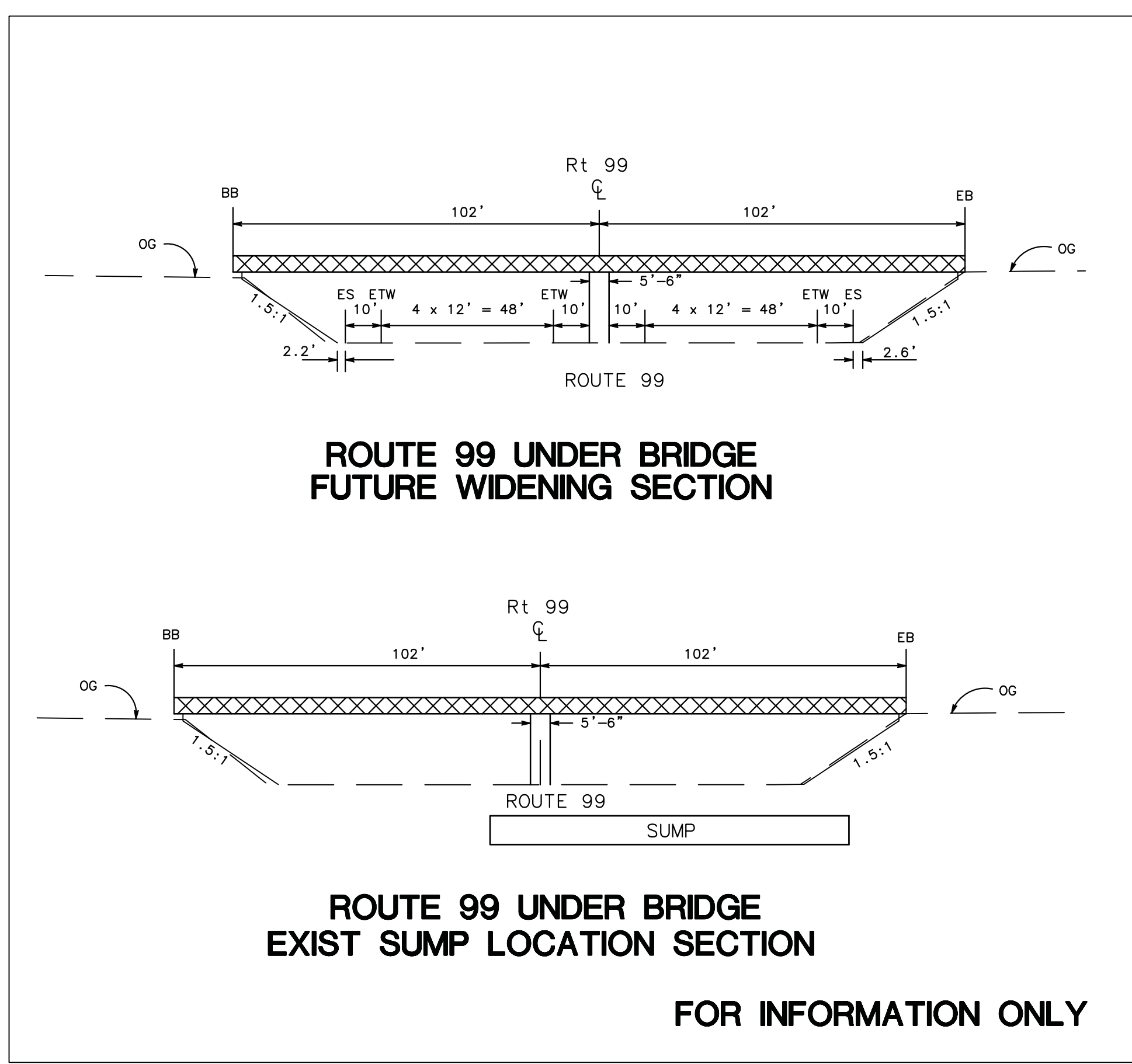
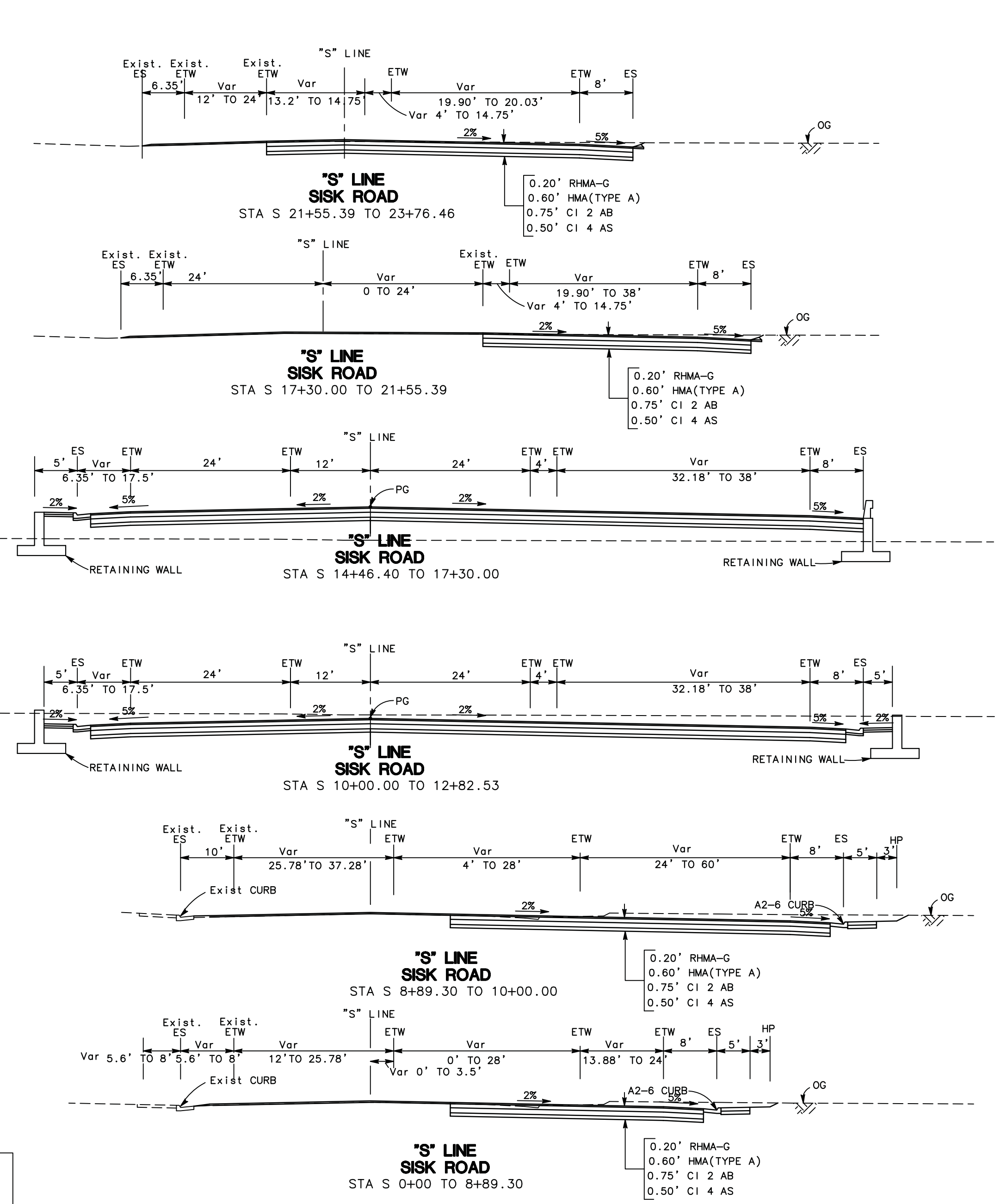
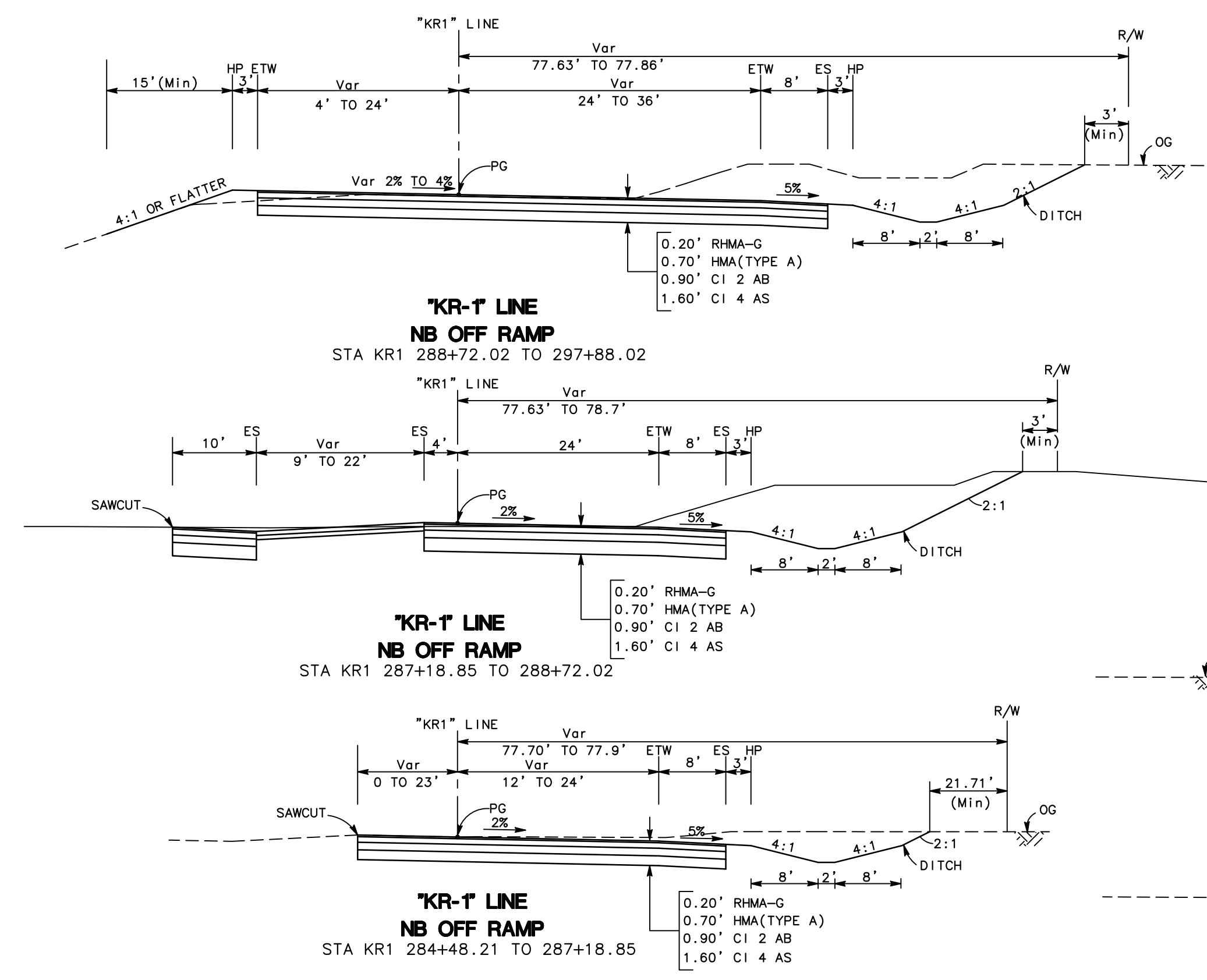
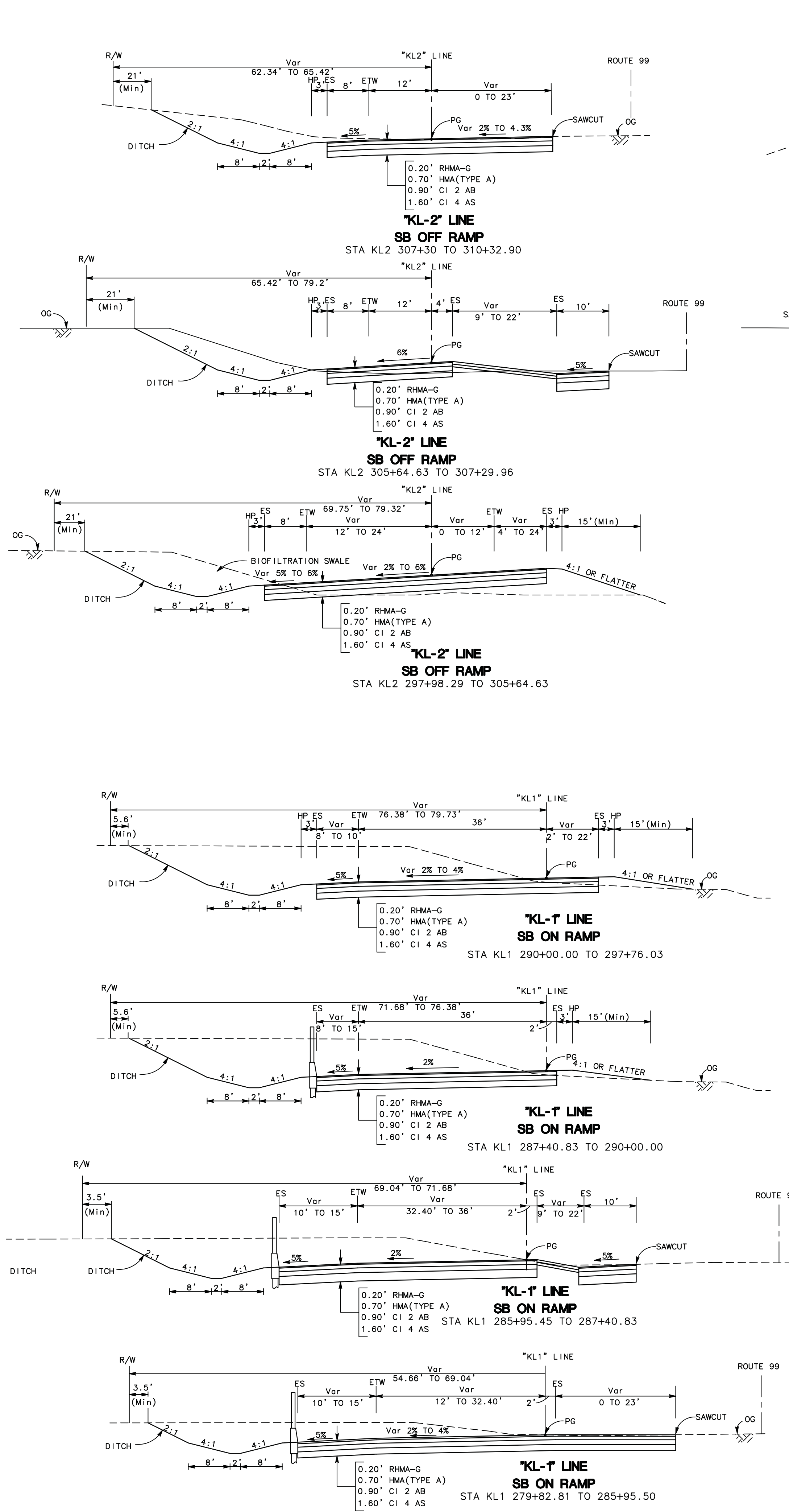


PROFILE
 KR2 LINE
 NB ON RAMP
 Scale: Horizontal 1" = 100'
 Vertical 1" = 10'

PROFILE AND SUPERELEVATION
 ROUTE 99/KIERNAN AVENUE INTERCHANGE
 MODIFIED COMPACT DIAMOND (TYPE-1) INTERCHANGE
 PROJECT ID: 10 0000 0100

Rajappan & Meyer
 CONSULTING ENGINEERS INC
 1038 Leigh Avenue, Suite 100 San Jose, CA 95128
 Phone: 408.280.2772 Fax: 408.280.6803

DESIGNED BY	TT	APPROVED ON		PROJECT NO.	29002	SHEET	2
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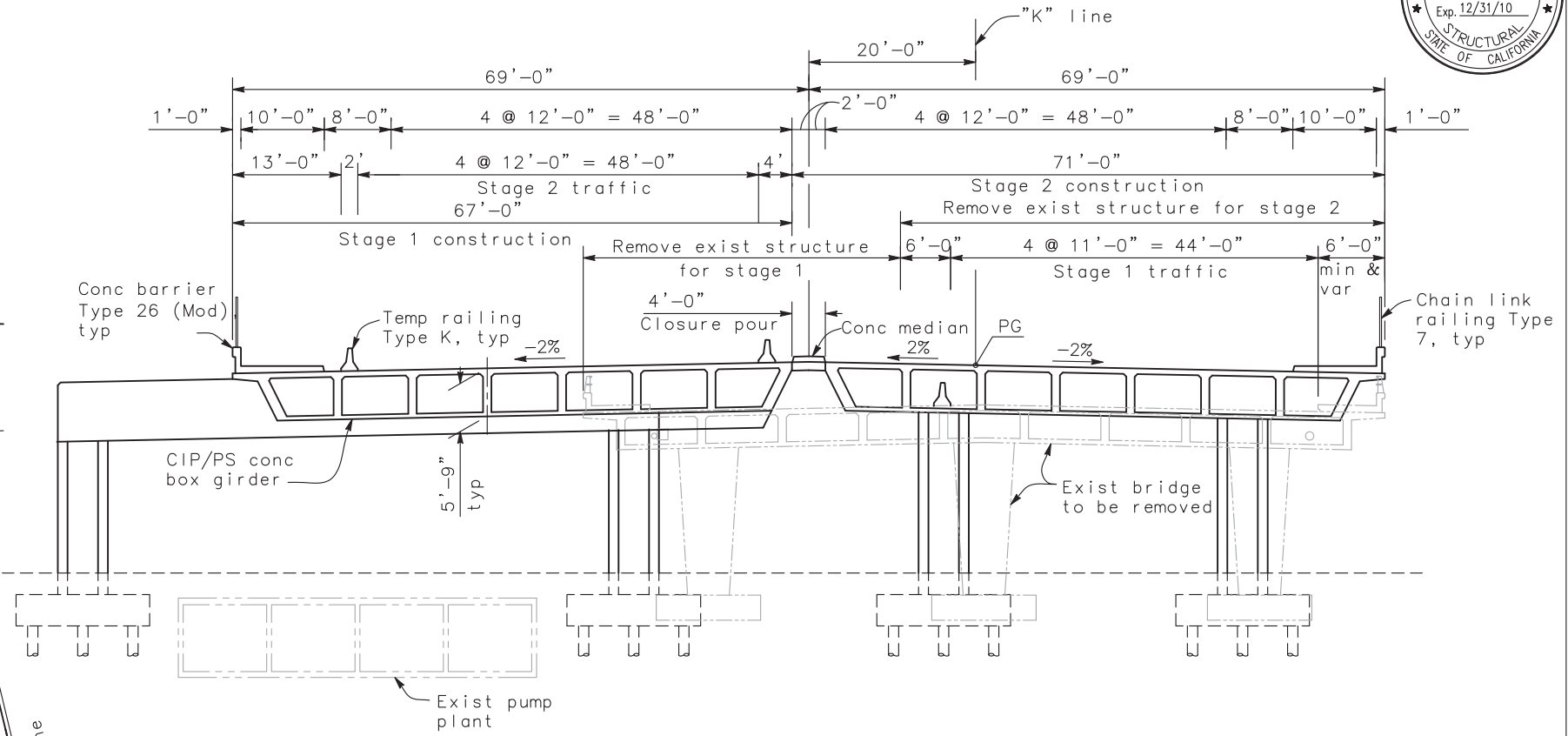
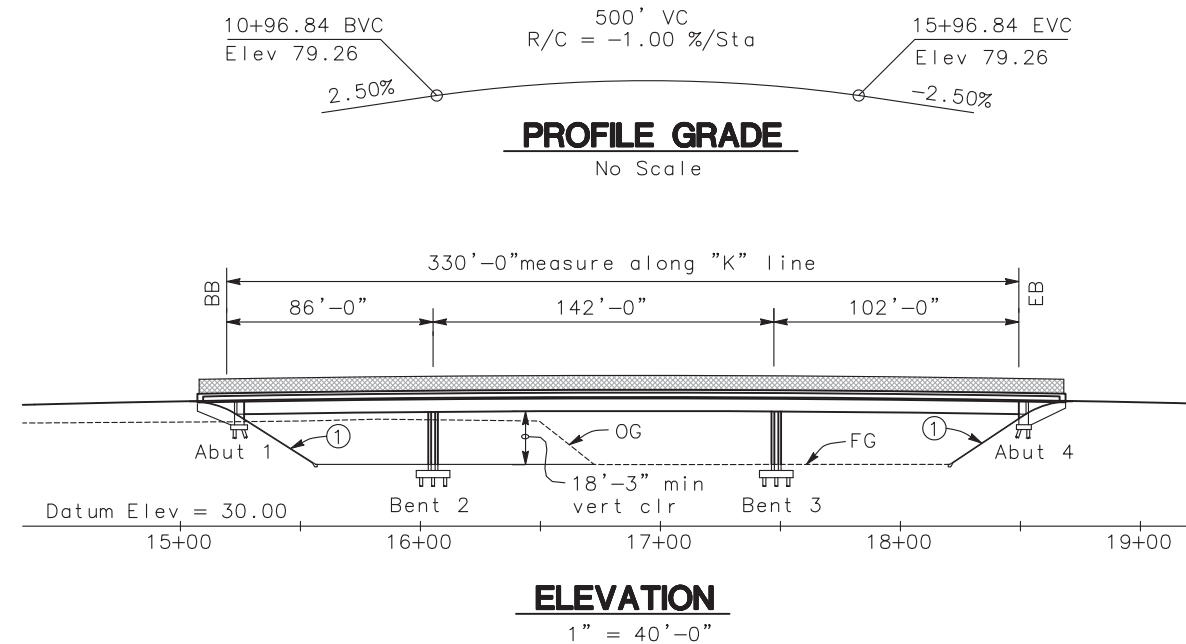
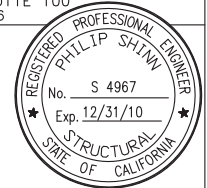


GEOMETRIC APPROVAL DRAWING
 ROUTE 99/KIERNAN AVENUE INTERCHANGE
 ALTERNATIVE 1
 MODIFIED COMPACT DIAMOND (TYPE-1) INTERCHANGE
 PROJECT ID: 10 0000 0100

 Rajappan & Meyer CONSULTING ENGINEERS INC 1038 Leigh Avenue, Suite 100 San Jose, CA 95126 Phone: 408.280.2772 Fax: 408.280.6803		DESIGNED BY: IT	APPROVED ON:	PROJECT NO. SHEET
		CKD. BY: BG	BY:	29002 1
DATE: 07/16/10	SCALE: N.T.S.	RCE NO.	SECTION-ALT 1	OF 3

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
10	Stan	99	R21.96/R23

RAJAPPAN & MEYER
CONSULTING ENGINEERS, INC.
1038 LEIGH AVE., SUITE 100
SAN JOSE, CA 95128



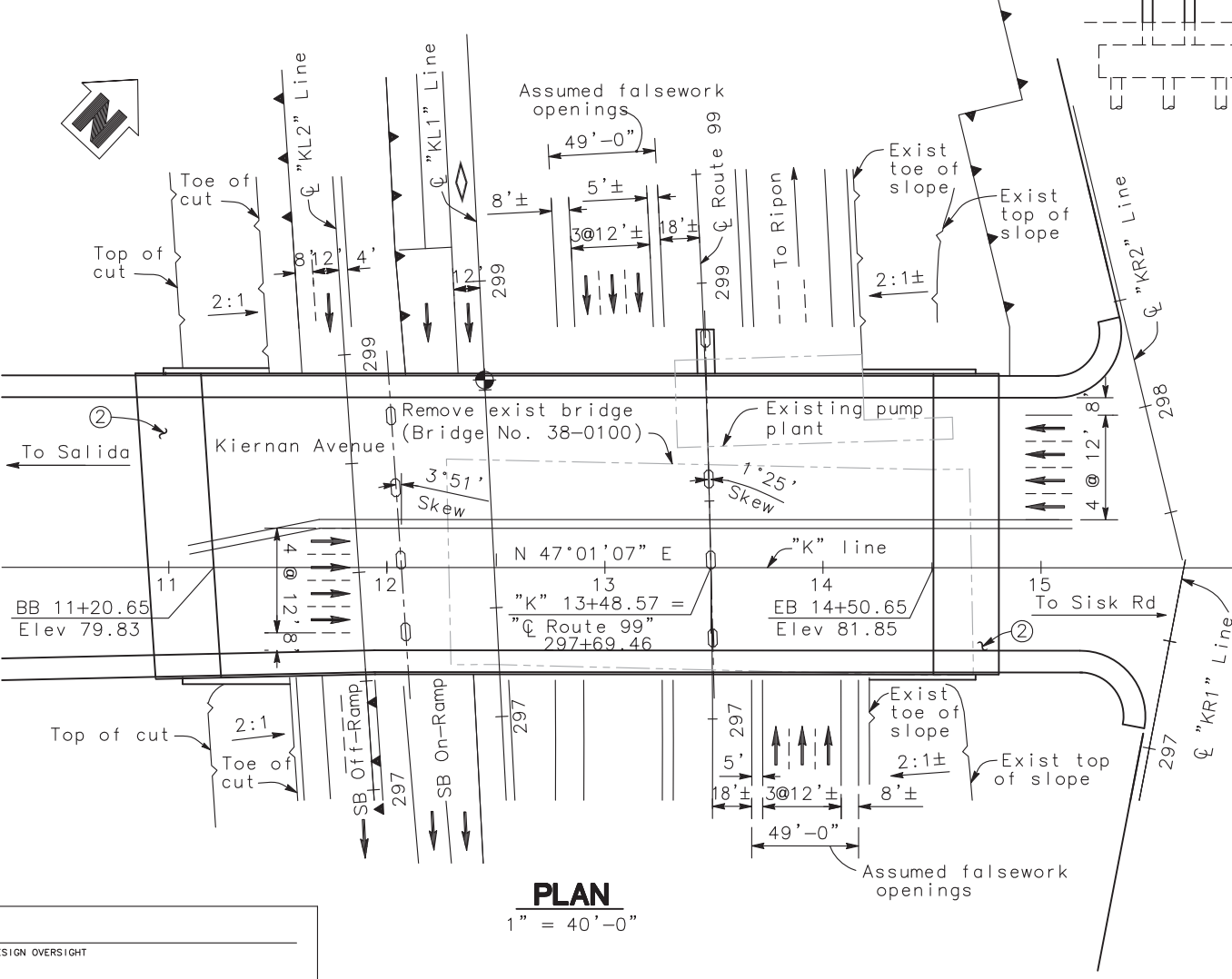
VEHICULAR TRAFFIC

- ___ New alignment. No traffic at the site
- ___ Traffic will be detoured away from the site
- Traffic will be carried on the structure
Stage construction will be required
- Traffic will pass under the structure on Route 99
 - ___ No falsework allowed over traffic
 - Falsework opening(s) required:

	Temporary vertical clearance	Width of traffic opening
N Bnd.	15'-0" min	49'-0"
S Bnd.	15'-0" min	49'-0"
Two-Way		
 - ___ Temporary traffic lane reduction needed for footing excavation

Date of estimate	= 02/25/10
Str. Depth	= 5'-9"
Length	= 330'-0"
Width	= 138'-0"
Area	= 45,540 ft ²
Cost/ft ² including 10% Mobilization & 25% Contingency	= \$215.86
Bridge Total Cost	= \$9,830,487
Bridge Removal (Contingencies Included)	= \$441,000
Grand Total	= \$10,271,000

- LEGEND:**
- ① Concrete slope paving (1.5 to 1 slope)
 - ② Structure approach slab Type N(30S)
 - ⊕ Indicates point of minimum vertical clearance
 - ▲ Indicates retaining wall
 - Indicates existing structure



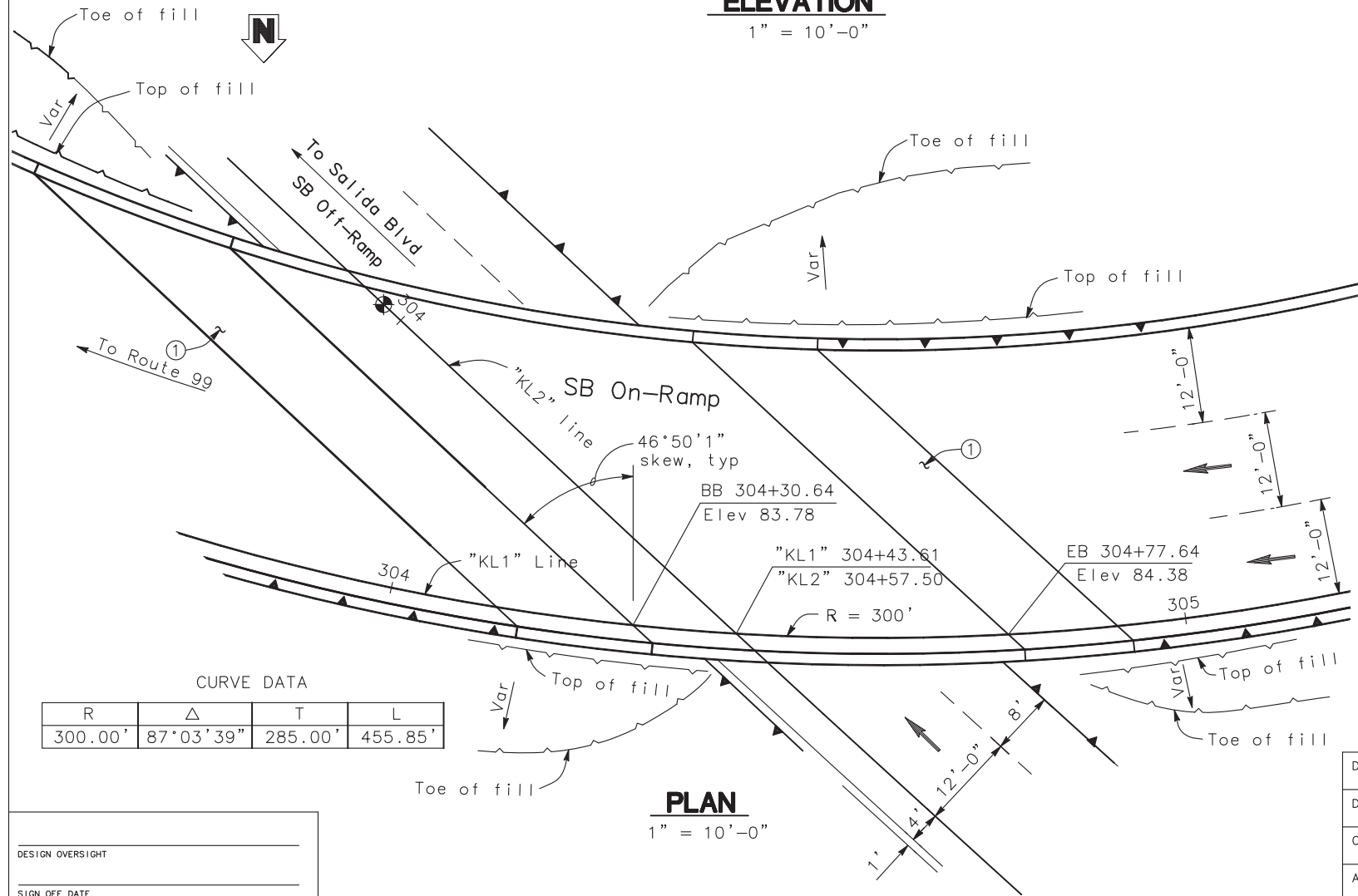
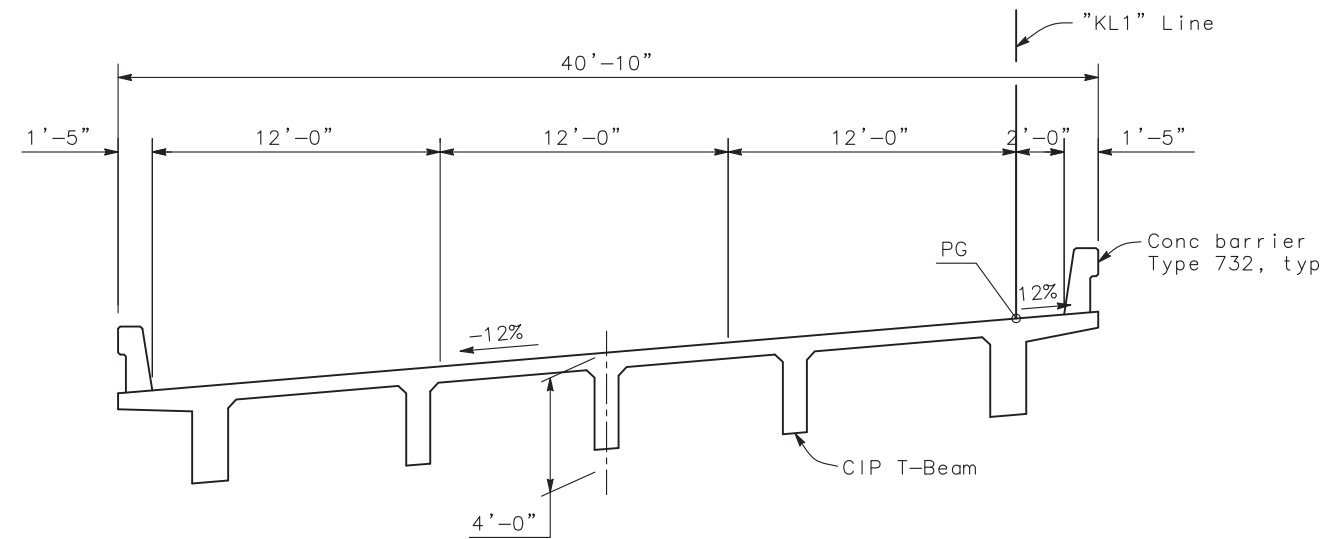
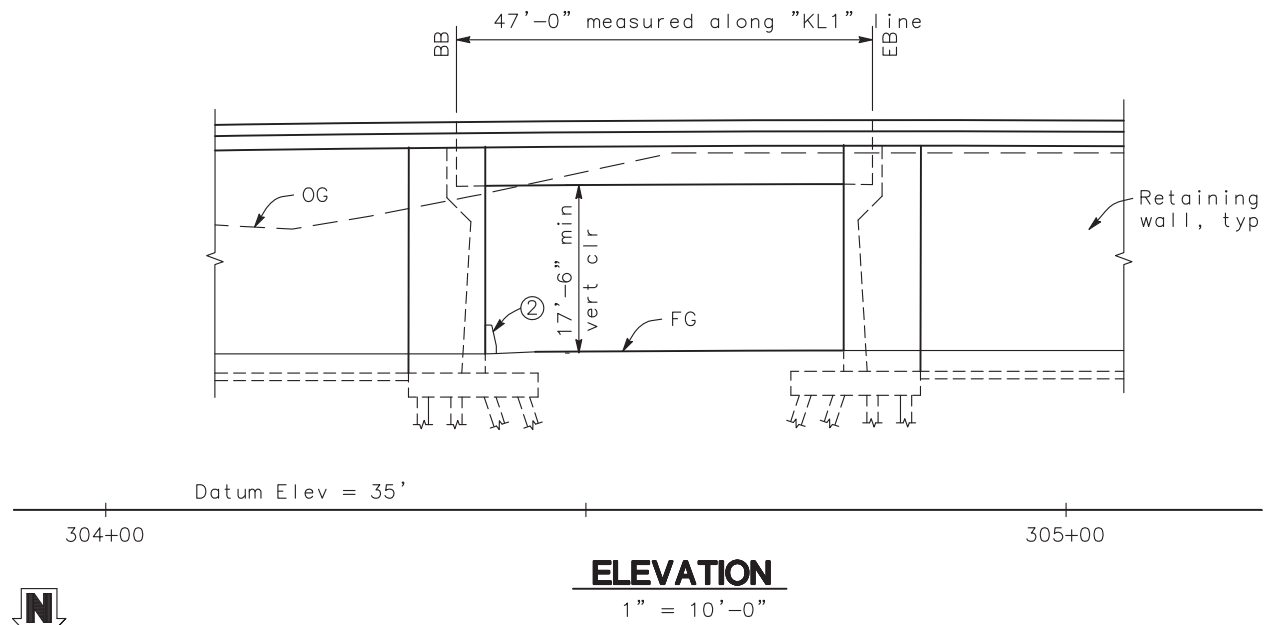
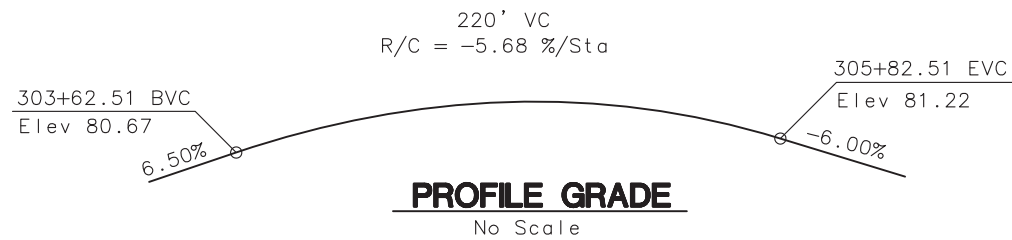
DESIGN OVERSIGHT
SIGN OFF DATE

DESIGNED BY	P. SHINN	DATE	02/10
DRAWN BY	P. SHINN	DATE	02/10
CHECKED BY	K. HARIRSAZ	DATE	02/10
APPROVED		DATE	

P. SHINN PROJECT ENGINEER		ADVANCE PLANNING STUDY	
ROUTE 219/99 SEPARATION (REPLACE)		BRIDGE NO.	38-0100
SCALE:	AS NOTED	CU	10
		EA	0L330K
		SHEET	1 OF 1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
10	Stan	99	R21.96/R23

RAJAPPAN & MEYER
CONSULTING ENGINEERS, INC.
1038 LEIGH AVE., SUITE 100
SAN JOSE, CA 95128



CURVE DATA

R	Δ	T	L
300.00'	87°03'39"	285.00'	455.85'

VEHICULAR TRAFFIC

- New alignment. No traffic at the site
 - Traffic will be detoured away from the site
 - Traffic will be carried on the structure
 - Traffic will pass under the structure
- Stage construction will be required
- (Name of St. or Hwy.)
- A. No falsework allowed over traffic
- B. Falsework opening(s) required:
- | | | |
|------------------------------|--------------------------|-------|
| Temporary vertical clearance | Width of traffic opening | |
| _____ | _____ | _____ |
- C. Temporary traffic lane reduction needed for footing excavation
- | | |
|---|-------------------------|
| Date of estimate | |
| Str. Depth | |
| Length | = 02/10 |
| Width | = 4'-0" |
| Area | = 47'-0" |
| Cost/ft ² including 10% Mobilization & 25% Contingency | = 1,919 ft ² |
| Bridge Total Cost | = \$608.34 |
| | = \$1,167.000 |

- LEGEND:**
- ① Structure approach slab Type N(10S)
 - ② Concrete Barrier Type 60E
 - ⊕ Indicates point of minimum vertical clearance
 - ▲▲ Indicates retaining wall

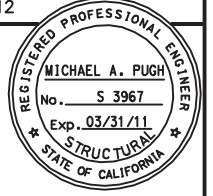
ALTERNATIVE 2
ROUTE 219/99 SEPARATION
ADVANCE PLANNING STUDY
(REPLACE) SB ON-RAMP

DESIGNED BY	P. Shinn	DATE	02/10
DRAWN BY	P. Shinn	DATE	02/10
CHECKED BY	K. HARIRSAZ	DATE	02/10
APPROVED		DATE	

P. Shinn PROJECT ENGINEER	
BRIDGE NO.	38-100
CU	10
SCALE:	AS NOTED
EA	0L330K
SHEET	1 OF 1

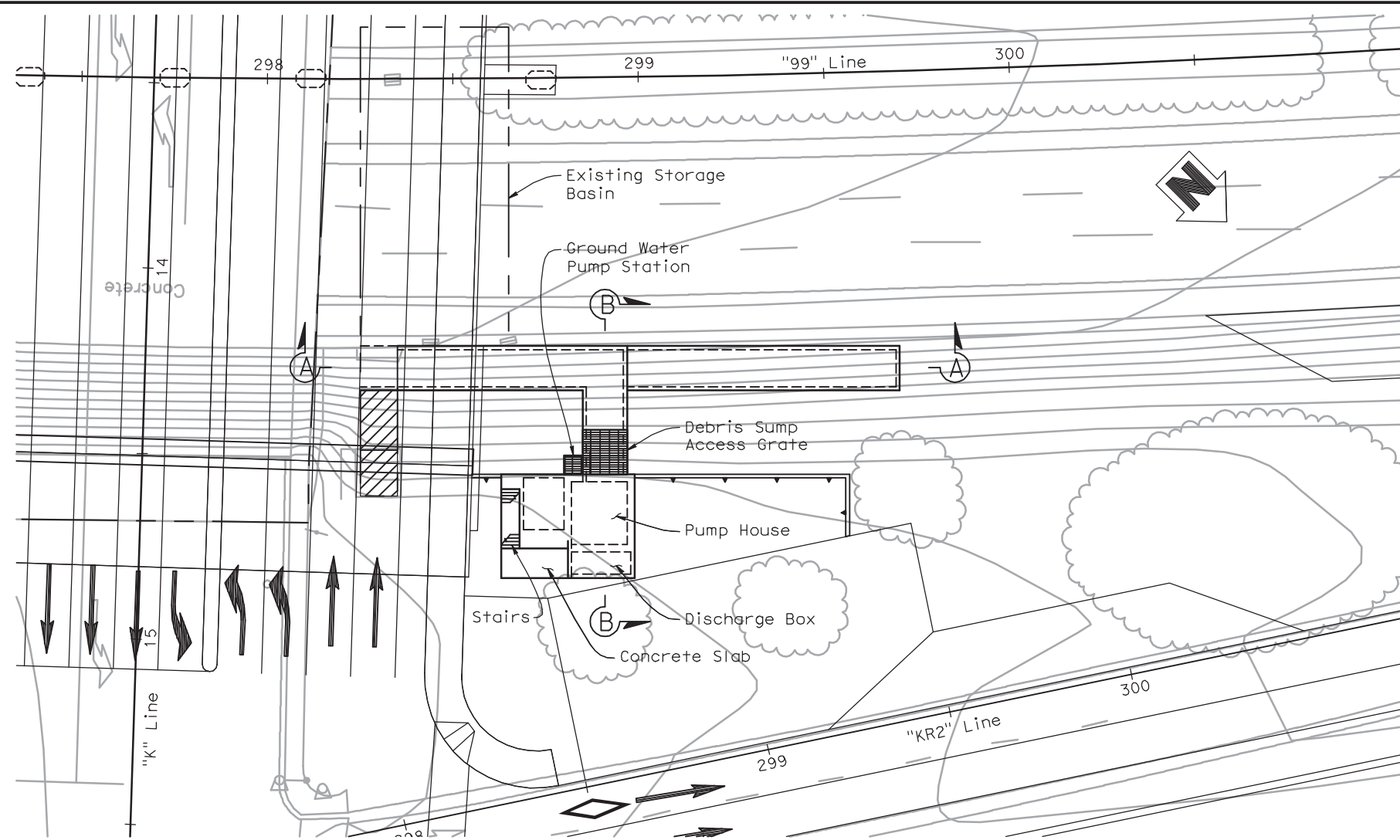
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
10	Stan	99	R23.9/25.1

NOLTE ASSOCIATES, INC.
1731 NORTH FIRST STREET, SUITE A
SAN JOSE, CA 95112

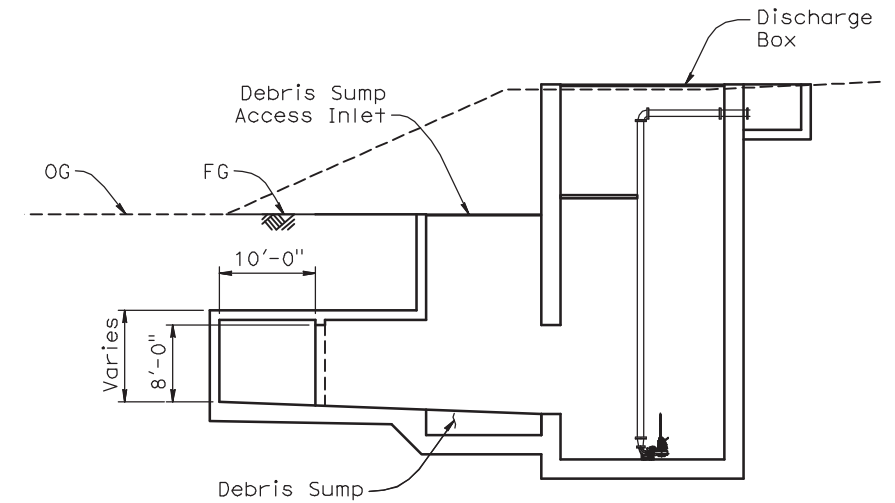


LEGEND

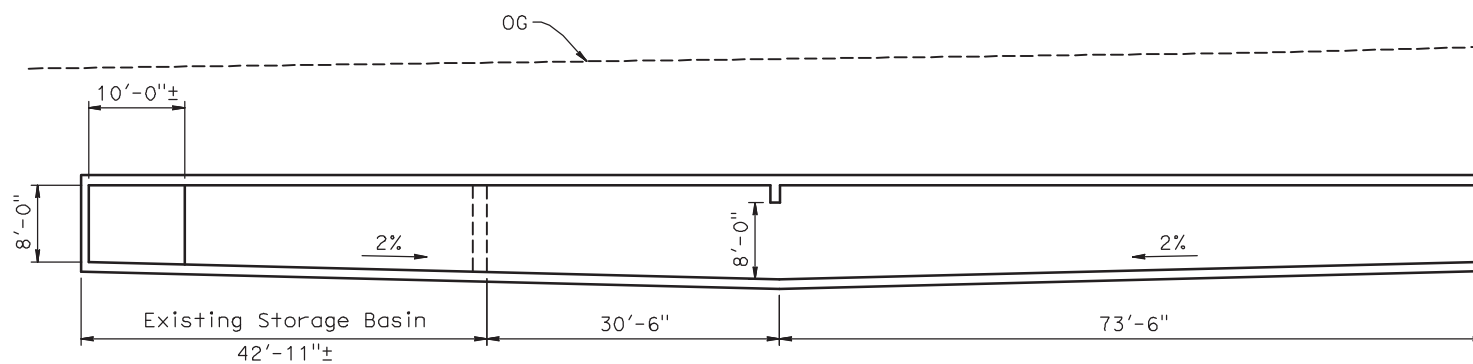
- Existing R/W
- - - Proposed County R/W
- ▬▬▬ Proposed Caltrans R/W
- ▲▲ Retaining Wall



PLAN
1"=20'



SECTION B-B
1"=10'



SECTION A-A
1"=10'

Pumps	Flow, gpm	EQUIPMENT SCHEDULE				
		Head, ft	Speed, rpm	HP	Volts	Phase
1 & 2	2,000	50	1,200	60	460	3
	3,000	45				
	3,500	42				
GW Pump	100	49	1,800	10	460	3
	200	46				
	300	42				

Date of Estimate	=	Feb 2010
Structural Excavation	=	410,000
Structural Backfill	=	70,000
Structural Concrete	=	825,000
Bar Reinforcing Steel	=	500,000
Site Piping	=	75,000
Miscellaneous Metals	=	30,000
Pumping Equipment	=	230,000
Ground Water		
Pump Equipment	=	80,000
Electrical Equipment	=	120,000
TRO (10%)	=	234,000
Mobilization (10%)	=	286,000
Contingency (20%)	=	572,000
Remove Pump Station (Contingency Included)	=	67,500
Total Cost	=	3,500,000

DESIGNED BY	M. PUGH	DATE	02/10
DRAWN BY	J. GREEN	DATE	02/10
CHECKED BY	G. CALCIANO	DATE	02/10
APPROVED		DATE	

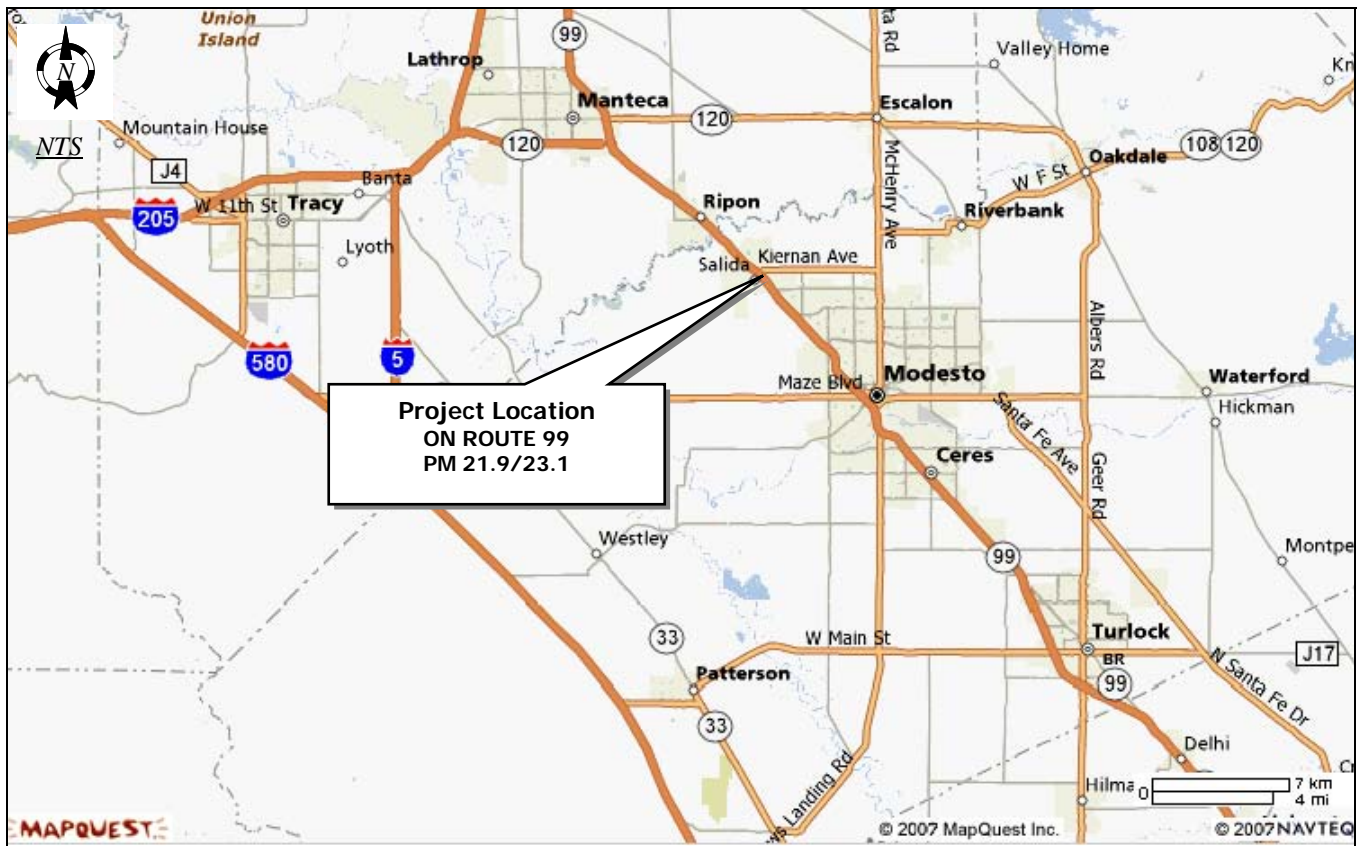
M. PUGH PROJECT ENGINEER	ADVANCE PLANNING STUDY		
	ROUTE 99/KIERNAN AVE PUMPING PLANT		
	BRIDGE NO. 38-100W	CU	10
SCALE: AS NOTED	EA	OL330K	SHEET 1 OF 1

DESIGN OVERSIGHT _____

SIGN OFF DATE _____

**D. Storm Water Data Report (SWDR)
Cover Sheet**

Route 99/Route 219 (Kiernan Avenue) Interchange Stormwater Data Report (For PA/ED – Alternative 1)



prepared for



STANISLAUS COUNTY

and



CALTRANS DISTRICT 10

prepared by

Rajappan & Meyer
CONSULTING ENGINEERS INC

1038 Leigh Avenue, Suite 100 • San Jose, California 95126
PH: (408) 280-2772 • FX: (408) 280-6803

www.rmengineers.com

Route 99/Route 219 (Kiernan Ave.) Interchange Alt 1 Storm Water Data Report



Dist-County-Route: 10-STA-99
 Post Mile Limits: PM 21.9/23.1
 Project Type: Interchange Reconstruction
 Project ID (or EA): 10 0000 0100
 Program Identification: 800.100
 Phase: PID
 PA/ED
 PS&E

Regional Water Quality Control Board(s): Region 5, Central Valley, Sacramento Office

Is the Project required to consider Treatment BMPs? Yes No
 If yes, can Treatment BMPs be incorporated into the project? Yes No

If No, a Technical Data Report must be submitted to the RWQCB at least 30 days prior to the projects RTL date. List RTL Date: _____

Total Distributed Soil Area: 31.7 acres Risk Level: 2
 Estimated: Construction Start Date: 11/2012 Construction Completion Date: 11/2015
 Notification of Construction (NOC) Date to be submitted: 09/2012

Erosivity Waiver Yes Date: _____ No
 Notification of ADL reuse (if Yes, provide date) Yes Date: _____ No
 Separate Dewatering Permit (if yes, permit number) Yes Permit # _____ No

This Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the date upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E.

Bo Gao

04/20/2011

Bo Gao, Registered Project Engineer

Date

I have reviewed the stormwater quality design issues and find this report to be complete, current and accurate:

 Christina Hibbard, Project Manager Date

 Scott Waller, Designated Maintenance Representative Date

 Elbert Cox, Designated Landscape Architect Representative Date

 Marissa Nishikawa, District/Regional Design SW Coordinator Date

E. Right Of Way Data Sheet

RIGHT OF WAY DATA SHEET

(Form #)

To: District Office Chief
R/W Local Public
Agency Services
District Branch
Attention: Services

Date September 15, 2010

Dist 10 Co STA Rte 99 P/M 21.9/23.1

ID 10 0000 0100

Project Description Route 99/Route 219 (Kiernan Avenue)
Interchange Project

Subject: Right of Way Data
Sheet – Local Public
Agency Services

Alternate No. 1

This Alternate meets the criteria for a Design/Build project: Yes No

1. Right of Way Cost Estimate: To be entered into PMCS COST RW1-5 Screens.

	Current Year 2010	Escalation Rate (annual)	Projected Year 2011
A. Total Acquisition Cost			\$ _____
Acquisition, including Excess Lands, Damages, and Goodwill.	\$ <u>2,950,000</u>	<u>10.0</u> %	\$ <u>3,245,000</u>
Grantors' Appraisal Cost	\$ <u>60,000</u>		\$ <u>60,000</u>
B. Utility Relocation (State Share)	\$ <u>1,819,000</u>	<u>10.0</u> %	\$ <u>2,000,900</u>
C. Relocation Assistance	\$ <u>240,000</u>	<u>10.0</u> %	\$ <u>264,000</u>
D. Clearance/Demolition	\$ <u>175,000</u>	<u>10.0</u> %	\$ <u>192,500</u>
E. Title and Escrow	\$ <u>30,000</u>	<u>10.0</u> %	\$ <u>33,000</u>
F. Total Estimated Cost	\$ <u>5,274,000</u>		\$ <u>5,795,400</u>
G. Construction Contract Work	\$ <u>30,000</u>		

(These are construction costs that are to be included in the projects PS&E.)

2. Current Date of Right of Way Certification January 2012

3. Parcel Data: To be entered into PMCS EVNT RW Screen.

Type	Dual/Appr	Utilities	RR Involvements
X _____		U4-1 <u>5</u>	None _____
A _____		-2 _____	C&M Agrmt <u>X</u>
B <u>5</u>		-3 _____	Svc Contract _____
C <u>7</u>	<u>1</u>	-4 <u>3</u>	Design _____
D _____		U5-7 _____	Const. _____
E XXXX		-8 _____	Lic/RE/Clauses _____
F XXXX		-9 <u>4</u>	
Total <u>12</u>			Misc. R/W Work
			RAP Displ <u>6</u>
			Clear/Demo <u>6</u>
			Const Permits <u>0</u>
			Condemnation <u>0</u>
			Excess <u>N/A</u>
Areas: R/W <u>4.34 Acres</u>	No. Excess Parcels <u>0</u>		
Entered PMCS Screens <u> </u> / <u> </u> / <u> </u>	by _____		
Entered AGRE Screen (Railroad data only)	<u> </u> / <u> </u> / <u> </u>	by _____	

RIGHT OF WAY DATA SHEET (Cont.)

(Form #)

EXHIBIT

4-EX-1 (REV 3/2004)

Page 2 of 5

4. Are there any major items of construction contract work? Yes No (If "Yes," explain.)
5. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.). No right of way required.

The right of way lands required for this proposed alternative consist of a mix of vacant and improved commercial, warehousing and light industrial, retail, and residential uses.

6. Is there an effect on assessed valuation? Yes Not Significant No (If "Yes," explain.)

7. Are utility facilities or rights of way affected?
Yes No (If "Yes," attach Utility Information Sheet, Exhibit 4-EX-5.)
The following checked items may seriously impact lead time for utility relocation:
 Longitudinal policy conflict(s)
 Environmental concerns impacting acquisition of potential easements
 Power lines operating in excess of 50 KV and substations
(See attached Exhibit 4-EX-5 for explanation.)

8. Are Railroad facilities or rights of way affected?
Yes No (If "Yes," attach Railroad Information Sheet, Exhibit 4-EX-6.)

RIGHT OF WAY DATA SHEET (Cont.)

(Form #)

9. Were any previously unidentified sites with hazardous waste and/or material found?
Yes None Evident (If "Yes," attach memorandum per R/W Manual, Chapter 4, Section 4.01.10.00.)

10. Are RAP displacements required? Yes No (If "Yes," provide the following information.)

No. of single family 2 No. of business/nonprofit 4

No. of multi-family 0 No. of farms 0

Based on Draft Relocation Impact Statement dated May 14, 2010, it is anticipated that sufficient replacement housing will be available without Last Resort Housing.

DRIS has been prepared in PA/ED phase.

11. Are there Material Borrow and/or Disposal Sites required? Yes No (If "Yes," explain.)

12. Are there potential relinquishments and/or abandonments? Yes No (If "Yes," explain.)

13. Are there any existing and/or potential airspace sites? Yes No (If "Yes," explain.)

RIGHT OF WAY DATA SHEET (Cont.)

(Form #)

EXHIBIT

4-EX-1 (REV 3/2004)

Page 4 of 5

- 14. Indicate the anticipated Right of Way schedule and lead time requirements. (Discuss if district proposes less than PMCS lead time and/or if significant pressures for project advancement are anticipated.)

Based on the R/W requirements on Page 1 of this Data Sheet, R/W will require a lead time of 12 months from the date regular appraisals can begin to project certification.

In any event, RW Maps will require 8 months from Final Maps to project certification.

The Stanislaus County as the sponsor of the project will perform right of way work. County concurs with the above schedule as acceptable to accomplish the right of way work.

- 15. Is it anticipated that Caltrans staff will perform all Right of Way work? Yes No (If "No," discuss.)

The Stanislaus County is the sponsor of the project. County will perform right of way work.

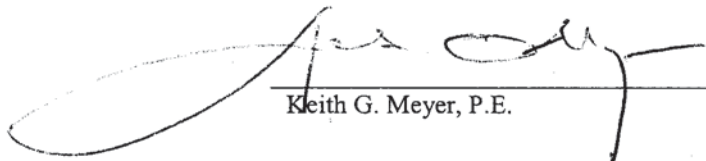
Evaluation Prepared By:

Right of Way: Name Steven L. Castellano, SR/WA Date: September 15, 2010
 Right of Way Consultant
 Associated Right of Way Services, Inc.

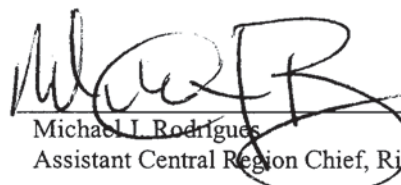
Railroad: Name Bo Gao Date: September 15, 2010
 Rajappan & Meyer Consulting Engineers

Utilities: Name John Beebe Date: September 15, 2010
 Alliance Electrical Consultants

Recommended for Approval:


 _____ Date: September 15, 2010
 Keith G. Meyer, P.E.

I have personally reviewed this Right of Way Data Sheet and all supporting information. I certify that the probable Highest and Best Use, estimated values, escalation rates, and assumptions are reasonable and proper subject to the limiting conditions set forth, and I find this Data Sheet complete and current.


 _____ Date: 9-16-2010
 Michael I. Rodriguez
 Assistant Central Region Chief, Right of Way

Right of Way Data Sheet Assumptions and Limiting Conditions

The following assumptions and limiting conditions have been relied upon and used in making this right of way estimate:

1. The right of way estimate is not an appraisal. The right of way estimate was prepared solely to assist the client in its decision-making related to costs associated with acquiring property rights for the proposed project.
 2. The estimate has been prepared using appraisal principles without the depth of investigation and verification required of a formal appraisal. The estimator has based the estimate on the highest supported anticipated costs and a “worst case” scenario.
 3. Verification of the comparable sales used in estimating values in this report is limited to that information which was available through data subscription services and the local multiple listing service.
 4. Project maps and required acquisition areas were provided and were assumed to be adequately accurate to prepare the right of way estimate. The right of way area calculations are assumed to reflect the needs for the project. Property boundaries were not staked by survey. The estimator relied on the areas and the parcel delineations as provided on the project maps. Any changes to parcel delineations or areas may impact the estimated right of way costs.
 5. Demolition costs were provided in the right of way estimate. However, the costs provided are an estimate only, and no warranty is given for their accuracy.
 6. Utility information was provided by the client and believed to be reliable. However, no warranty is given for its accuracy.
 7. Preliminary title reports were not provided and the estimator relied on Assessor’s records for ownership information. However, no warranty is given for its accuracy. The subject properties are assumed to be free and clear of any or all liens and encumbrances. No responsibility is assumed for legal or title considerations. Title to the properties is assumed to be good and marketable.
 8. It is assumed that there are no hazardous or toxic substances in the structures or soils comprising the subject ownerships.
 9. Possession of this report, or a copy thereof, does not carry with it the right of publication. It may not be used for any purpose by any person other than the party to whom it is addressed without the written prior consent of AR/WS, and in any event, only with prior written qualification and only in its entirety. The delivery and/or possession of this report does not require AR/WS to attend or give testimony at any meeting, public hearing, pretrial conference, deposition, or court.
 10. Neither all nor any part of the contents of this right of way estimate, the identity of the estimator, or the firm with which the estimator is connected shall be disseminated to the public through advertising, public relations, news sales, or other media.
 11. The information contained in this report is specific to the needs of the client and for the intended use stated in this report. AR/WS is not responsible for unauthorized use of this report.
-
-

1. Name of utility companies involved in project: AT&T, PG&E, Modesto Irrigation District (MID), Comcast, and The City of Modesto.

2. Types of facilities and agreements required: AT&T has underground facilities on Kiernan Ave. (Broadway Ave., SR-219) these facilities will be relocated via master agreement (50/50). PG&E has a distribution gas pipeline on Kiernan Ave. (Broadway Ave.SR-219), the pipe will be relocated via master agreement (50/50). MID has aerial distribution facilities on Kiernan Ave. (Broadway Ave. SR-219). These facilities have been relocated once on adjoining projects and will need to be relocated again at the utility owners cost. Comcast has overhead facilities on Kiernan Ave. and Sisk Rd. which will also need relocation at the owners cost. The City of Modesto has a 12” water main on Kiernan Ave. (Broadway Ave.SR-219) which will be relocated per State Highway Code section 703, 100% project .

3. Is any facility a longitudinal encroachment in existing or proposed access controlled right of way? No

Disposition of longitudinal encroachment(s):

- Relocation required.
- Exception to policy needed.
- Other. Explain.

4. Additional information concerning utility involvements on this project, i.e., long lead time materials, growing or special seasons, customer service seasons (no transmission tower relocations in summer). None

5. PMCS Input Information
 Total estimated cost of State’s obligation for utility relocation on this project:
 \$ \$1,819,100

Note: Total estimated cost to include any Department obligation to relocate longitudinal encroachments in access controlled right of way and acquire any necessary utility easements.

<u>Utility Involvements</u>	
U4-1 <u>5</u>	U5-7 _____
-2 _____	-8 _____
-3 _____	-9 <u>4</u>
-4 <u>3</u>	

Prepared By:

John Beebe
 Right of Way Utility Estimator

8/4/10
 Date

ESTIMATE WORKSHEET

(Form #)

DISTRICT	COUNTY	ROUTE	P.M./K.P.
10	STA	99	PM 21.9/23.1
ALTERNATIVE 1			PROJECT ID 10 0000 0100
DATE			PAGE
19-Jul-10			OF
NAME - OTHER INFO.			R/W AREA
			(ft ²)
			EXC. AREA
			(ft ²)

TYPE	PARCEL	P.M./K.P.	ESTIMATED COST	RAP COST	CLEAR/DEMO COST	NO RAP DISPL.	NO CLEAR/DEMO	NO CONST PERMITS	CCW COST	ESCROW COST	NAME - OTHER INFO.	R/W AREA (ft ²)	EXC. AREA (ft ²)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)		(12)	(13)
C	135-045-055	21.9/23.1	440,000	40,000	25,000	1	1			2,500	SALIDA FIRE PROTECTION DIST	14,694	0
C	135-041-031		75,000	0	0	0	0			2,500	JACK H. COKER	4,586	0
B	135-041-033		165,000	0	0	0	0			2,500	CRAIG G. COKER	23,640	0
B	135-045-038		345,000	40,000	25,000	1	1			2,500	DHALIWAL, AMARJIT J. & R.K.	16,765	0
C	135-053-012		10,000	0	0	0	0			2,500	KING OF CENT. VALL. II	577	0
C	135-053-011		20,000	0	0	0	0			2,500	MILMOR ASSOCIATES	1,092	0
C	135-045-037		130,000	40,000	25,000	1	1			2,500	RICHARD A. & BRENDA K. LOWRY	932	0
C	135-045-029		800,000	40,000	50,000	1	1			2,500	RICHARD A. & BRENDA K. LOWRY	51,483	0
B	136-020-011		200,000	40,000	25,000	1	1			2,500	MICHAEL & RENEE SILVA	8,131	0
B	136-020-010		200,000	40,000	25,000	1	1			2,500	FREDERICK B. BUTTERWORTH	11,650	0
B	136-033-029		185,000	0	0	0	0			2,500	JOHN R. & CAROL L. REGUSCI	18,127	0
C	135-042-020		380,000	0	0	0	0			2,500	CALIF ALMOND GROWERS EXC.	37,532	0
TOTAL			2,950,000	240,000	175,000	6	6			30,000		189,209	0
GRAND TOTAL FROM ALL PAGES			3,395,000									189,209	0

PROJECT PERMIT FEES

PERMITTER	ESTIMATED COST	TYPE OF PERMIT	DATE TO EXPEND
(14)	(15)	(16)	(17)
TOTAL			
GRAND TOTAL FROM ALL PAGES			

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	STA	99	21.9/23.1		

PROFESSIONAL CIVIL ENGINEER

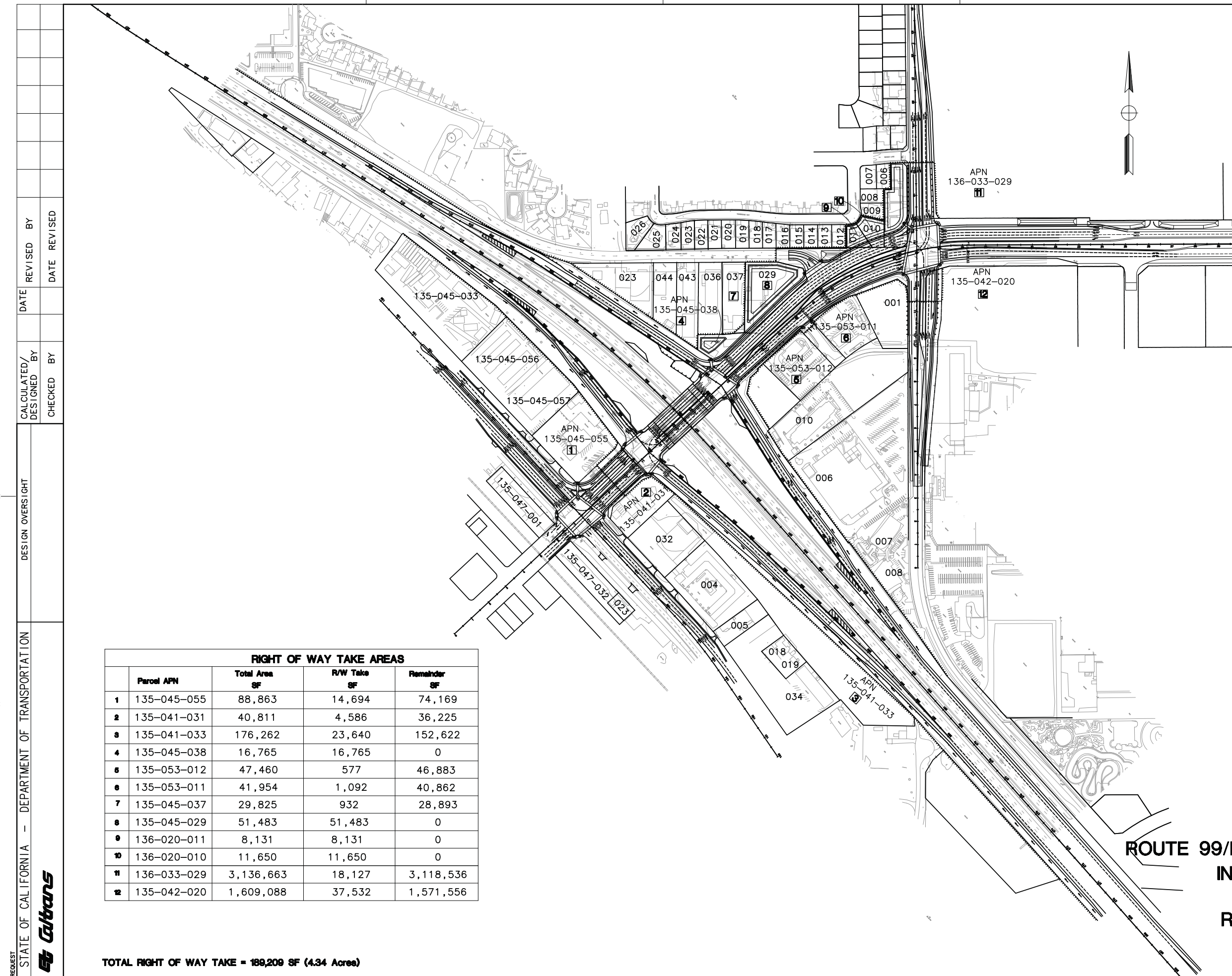
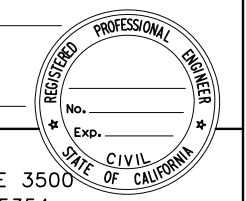
PLANS APPROVAL DATE

STANISLAUS COUNTY
1010 10TH STREET, SUITE 3500
MODESTO, CALIFORNIA 95354

RAJAPPAN & MEYER
CONSULTING ENGINEERS, INC.
1038 LEIGH AVENUE, SUITE 100
SAN JOSE, CALIFORNIA 95126

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To get to the Caltrans web site, go to: <http://www.dot.ca.gov>



RIGHT OF WAY TAKE AREAS				
	Parcel APN	Total Area SF	R/W Take SF	Remainder SF
1	135-045-055	88,863	14,694	74,169
2	135-041-031	40,811	4,586	36,225
3	135-041-033	176,262	23,640	152,622
4	135-045-038	16,765	16,765	0
5	135-053-012	47,460	577	46,883
6	135-053-011	41,954	1,092	40,862
7	135-045-037	29,825	932	28,893
8	135-045-029	51,483	51,483	0
9	136-020-011	8,131	8,131	0
10	136-020-010	11,650	11,650	0
11	136-033-029	3,136,663	18,127	3,118,536
12	135-042-020	1,609,088	37,532	1,571,556

TOTAL RIGHT OF WAY TAKE = 189,209 SF (4.34 Acres)

**ROUTE 99/ROUTE 219 (KIERNAN AVENUE)
INTERCHANGE PROJECT
ALTERNATIVE 1
RIGHT OF WAY TAKE**
SCALE 1" = 200'
RW-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => \$USER
DGN FILE => \$REQUEST

CU PROJECT ID: 10 0000 0100

LAST REVISION: 00-00-00
DATE PLOTTED => \$DATE
TIME PLOTTED => \$TIME

RAILROAD INFORMATION SHEET

(Form #)

1. Describe railroad facilities or right of way affected.

Union Pacific Railroad crosses Main Street west of Salida Boulevard.
Project improvements will be constructed adjacent to UPRR right of way.

2. When branch lines or spurs are affected, would acquisition and/or payment of damages to businesses and/or industries served by the railroad facility be more cost effective than construction of a facility to perpetuate the rail service? Yes _____ No X
(If yes, explain)

No branch lines or spurs are affected.

3. Discuss types of agreements and right required from the railroads. Are grade crossings requiring service contracts or grade separations requiring construct and maintenance agreements involved?

Temporary Construction Easement for construction of roadway improvements adjacent to UPRR Right of Way.

4. Remarks (non-operating railroad right of way involved?): None .

5. PMCS Input Information

RR Involvements

None	_____
C&M Agreement	_____
Service Contract	_____
Design	_____
Const.	_____
Lic/RE/Clauses	_____ 1 _____

Prepared By:

Keith Meyer

03/19/2010

Right of Way Railroad Coordinator

Date

**F. Transportation Management Plan
(TMP) Checklist**

Keith Meyer

From: Christina Hibbard [christina_hibbard@dot.ca.gov]
Sent: Thursday, August 12, 2010 1:05 PM
To: Keith Meyer
Cc: Silvia Dayak
Subject: Fw: Kiernan TMP (10-0L330, #10 0000 0100)

Attachments: Approved TMP.PDF; Approved TMP.PDF



Approved TMP.PDF (3 MB) Approved TMP.PDF (3 MB)

Forgive me Keith, I thought I had passed this on to you.

Christina Hibbard, MA, PMP
Senior Project Manager

----- Forwarded by Christina Hibbard/D10/Caltrans/CAGov on 08/12/2010 01:04 PM -----

Edgar
Pausanos/D10/Calt
rans/CAGov

07/26/2010 03:02
PM

Christina
Hibbard/D10/Caltrans/CAGov@DOT

Silvia
Dayak/D10/Caltrans/CAGov@DOT, Wuthy
Seng/D10/Caltrans/CAGov@DOT, Karen
Mai/D10/Caltrans/CAGov@DOT, Wilmar
Kuhl/D10/Caltrans/CAGov@DOT

To

cc

Subject

Re: Fw: Kiernan PR exhibits
(10-0L330, #10 0000 0100) (Document
link: Christina Hibbard)

Hi Christina,

TMP is a live document and can be updated/ revised as per stage/phase of the project development. If since the TMP submittal, there are or were ,no significant changes or development to the project, then the TMP would most likely remain the same.

Now, if there are significant changes, then we need all those changes (plans, specs, etc.), so we can update the TMP accordingly.

Please call if you have questions.

Thanks, Ed

I-5 NORTH STOCKTON PAED SCHEDULE

Christina
Hibbard/D10/Caltrans/CAGov

07/23/2010 02:02
PM

To
Edgar
Pausanos/D10/Caltrans/CAGov@DOT
cc
Wuthy Seng/D10/Caltrans/CAGov@DOT,
Silvia Dayak/D10/Caltrans/CAGov@DOT
Subject
Fw: Kiernan PR exhibits (10-0L330,
#10 0000 0100)

Hi Ed, can we get an updated TMP for the Kiernan IC project? Thanks.

Christina Hibbard, MA, PMP
Senior Project Manager

----- Forwarded by Christina Hibbard/D10/Caltrans/CAGov on 07/23/2010 02:01 PM -----

"Keith Meyer"
<keith@rmengineers.com>

07/22/2010 09:34
AM

To
"Christina Hibbard"
<christina_hibbard@dot.ca.gov>
cc
"Wuthy Seng"
<wuthy_seng@dot.ca.gov>
Subject
FW: Kiernan PR exhibits

Christina, could you have Traffic Management update the TMP for Kiernan PAED phase?
Thanks!

<<Approved TMP.PDF>> _____ Keith G. Meyer Rajappan &
Meyer Consulting Engineers, Inc.
1038 Leigh Avenue, Suite 100, San Jose, CA 95126
PH: 408-280-2772 FX: 408-904-7215 CL: 408-781-4003

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D-10 TRAFFIC MANAGEMENT: DELIVERY- MEMO

To: Alex Ng	From: Karen Mai D-10 Traffic Management	Date: 9/18/08
Cc: FILE, D-10 PIO	Phone: (209) 942-6089	

M *Re: EA #0L330K*

E *Attached is the Approved TMP Checklist, Lane Requirement Charts, and Table Z for the above mentioned project.*

S *Please include a copy of the TMP Checklist in the RE Book with all supporting Documentation.*

S
A *We request the following:*

A
G
E *a. Contractor shall work with RE/Inspector to request the necessary lane closures needed. Requests shall be made the week prior to the actual work. Inspector shall submit closure through the Lane Closure System (LCS) for our approval by Wednesday afternoon of the week prior.*

b. All lane closures shall be called in by either the Contractor to the Traffic Management Center (TMC) when the closure begins (10-97), ends (10-98), or is canceled (10-22). The TMC can be reached 24-7 at (209) 948-7556 or 7551.

c. Use proper Traffic Control devices throughout the duration of the project as per Caltrans Standard Specifications.

Please call if you have any questions regarding the attached information.

D-10 TRANSPORTATION MANAGEMENT PLAN CHECKLIST

District - EA: 10-0L330K
Date Prepared: September 12, 2008
Prepared By: Karen Mai
Requested By: Alex Ng

Co.-Rte.-P.M. 10-STA-99 PM R21.9/23.2
Location: from 1.7 mi South of the existing Hammett interchange, and 0.83 mi North of the existing Pelandale ave

Stage of Project (X box) PID PSR PR PS&E

Date Signed Date Signed Date Signed Date Signed

Description: Reconstruction of interchange at SR 99/ Route 219 (Kiernan Ave) and Construction of auxiliary lanes in both NB and SB directions of SR 99 from Kiernan Ave to Pelandale Ave

REQUIRED	RECOMMENDED	NOT APPLICABLE	BEES Item No.	COMMENTS	ITEM COST	REQUIRED IN SPEC.
----------	-------------	----------------	---------------	----------	-----------	-------------------

1.0 Public Information Strategies

- 1.1 Brochures and Mailers
- 1.2 Media Releases (& minority media sources)
- 1.3 Paid Advertising
- 1.4 Public Information Center
- 1.5 Public Meetings/Speakers Bureau
- 1.6 Project Telephone Hotline
- 1.7 Internet, E-Mail
- 1.8 Local cable TV and News
- 1.9 Notification to Impacted groups
(i.e. bicycle users, pedestrians with disabilities, others)
- 1.10 Project Web Page
- 1.11 Caltrans Public Information Office
- 1.12 Consultant Public Information Office
- 1.13 Other items

<input checked="" type="checkbox"/>				RE to hand-deliver to business/residences.		
<input checked="" type="checkbox"/>						
	<input checked="" type="checkbox"/>					
<input checked="" type="checkbox"/>				See comments below.		
<input checked="" type="checkbox"/>			066063	Designer to add to budget if public meeting is added.		
	<input checked="" type="checkbox"/>					
	<input checked="" type="checkbox"/>					
	<input checked="" type="checkbox"/>					
<input checked="" type="checkbox"/>				Designer to verify impacted groups.		
<input checked="" type="checkbox"/>				Web page could be linked to local City pg.		
<input checked="" type="checkbox"/>			066063	Items 1.1 to 1.11 to be handled by CT PIO.	\$50K	
<input checked="" type="checkbox"/>				If Caltrans PIO not used	\$125K	
		<input checked="" type="checkbox"/>				

2.0 Traveler Information Strategies

- 2.1 Changeable Message Signs (permanent)
- 2.2 Changeable Message Signs (portable)
- 2.3 Special Construction Signs
- 2.4 Traveler Information Systems (CHIN/Internet)
- 2.5 Highway Advisory Radio "HAR" (fixed or mobile)
- 2.6 Radar Speed Sign
- 2.7 Traffic Management Team
- 2.8 Revised Transit Schedules/ Maps
- 2.9 Bicycle community information
- 2.10 Other item

	<input checked="" type="checkbox"/>			See comments below		
<input checked="" type="checkbox"/>			128650	1 pair cms (19 mo.) (3.5k/mo.) = \$66.5k	\$67K	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>			120690			
<input checked="" type="checkbox"/>			861985	As required.		
	<input checked="" type="checkbox"/>		860520			
	<input checked="" type="checkbox"/>		066064			
	<input checked="" type="checkbox"/>			As needed		
	<input checked="" type="checkbox"/>					
<input checked="" type="checkbox"/>				Same as Item 1.9.		
		<input checked="" type="checkbox"/>				

3.0 Incident Management

- 3.1 COZEEP
- 3.2 Freeway Service Patrol (tow truck service patrol)
- 3.3 Traffic Surveillance Stations (loops or CCTV)
- 3.4 Transportation Management Center
- 3.5 Traffic Control Inspector (Caltrans)
- 3.6 Traffic Management Team
- 3.7 On-site Traffic Advisor (contractor)
- 3.8 Other Items

<input checked="" type="checkbox"/>			066062	2 chp (10 hr) (\$90/hr) (250 days) = \$450K	\$450K	
	<input checked="" type="checkbox"/>		066065			
<input checked="" type="checkbox"/>			066876	Existing to remain &/or provide new stations.		
	<input checked="" type="checkbox"/>			RE to notify for incident & status closure.		
	<input checked="" type="checkbox"/>					
	<input checked="" type="checkbox"/>			TMC will contact TMT as needed.		
	<input checked="" type="checkbox"/>					
	<input checked="" type="checkbox"/>					

4.0 Construction Strategies

- 4.1 Delay damage clause
- 4.2 Night work
- 4.3 Weekend Work
- 4.4 Extended Weekend Closures
- 4.5 Planned Lane Closures
- 4.6 Planned Ramp Closures/Connector Closure
- 4.7 Total Facility Closure
- 4.8 Project Phasing
- 4.9 Truck Traffic Restrictions
- 4.10 Reduced Lane Widths
- 4.11 Temporary K-Rail
- 4.12 Temporary Traffic Screens
- 4.13 Reduced Speed Zones
- 4.14 Traffic Control Improvements

<input checked="" type="checkbox"/>					TBD	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>				Per Lane Closure Charts		<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>					
	<input checked="" type="checkbox"/>					
<input checked="" type="checkbox"/>				Per Lane Closure Charts		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>				As per stage construction if any.		<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>					
<input checked="" type="checkbox"/>				Per drawings/data sheet if any.		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>			129000			<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>			129150			<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>				As necessary.		

4.0 Construction Strategies (Continued)

REQUIRED	RECOMMENDED	NOT APPLICABLE	BEES Item No.	COMMENTS	ITEM COST	REQUIRED IN SPEC.
X						X
		X				
X						
		X				
		X				
				(In case of failure or major delays)		
X						
		X				
X						
X						
X						
X						
X			07850	RE to confirm prior to scheduling of closures.		X
X						X
X			066022	Designer to determine costs for maintaining traffic	TBD	X
X				See comments below.		X

5.0 Demand Management

- 5.1 HOV Lanes/Ramps
- 5.2 Ramp metering
- 5.3 Park-and-Ride Lots
- 5.4 Parking Management/Pricing
- 5.5 Rideshare Incentives
- 5.6 Rideshare Marketing
- 5.7 Transit, Train, or Light-Rail Incentives
- 5.8 Transit Service Modification
- 5.9 Variable Work Hours
- 5.10 Telecommute
- 5.11 Other Items

		X				
	X			See comments below.		
		X				
		X				
		X				
		X	066069			
		X	066066			
		X				
		X				
		X				
		X				

6.0 Alternate Route Strategies

- 6.1 Ramp Closures
- 6.2 Street Improvements
- 6.3 Reversible Lanes
- 6.4 Temporary Lanes or Shoulders Use
- 6.5 Freeway to freeway connector closures

		X				
		X				
		X				
		X				
		X				

7.0 Other Strategies

- 7.1 Application of new technology
- 7.2 Other Items

		X				
		X				

Comments:

- 1.4 Plan, progress/completion information should be available at Local Public Works, Chamber of Commerce Offices, and CT Maintenance Offices.
- 1.9 Impacted groups need to be notified and informed about upcoming construction. During construction, access across job site will be needed.
- 1.11 PIO estimated at \$2k/mo. Or per stage construction or per major milestone.
- 1.12 Consultant PIO estimated at \$5k/mo
- 2.1 Consult with 315 program advisor in regards to ITS elements
- 4.20 RE/Inspector shall maintain access to all business & residences at all times.
- 5.20 Consult with 315 program advisor in regards to ITS elements

Approved by:


 DISTRICT TRAFFIC MANAGER

9-18-08
 DATE

Chart No. 1 Freeway/Expressway Lane Requirements																										
County: STA					Route/Direction: 99/ NB										PM: R21.9/R23.2											
Closure Limits: from 1.7 mi South of the existing Hammett interchange, and 0.83 mi North of the existing Pelandale interchange																										
FROM HOUR TO HOUR		24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays		1	1	1	1	2																	2	2	2	1
Fridays		1	1	1	1	2																				
Saturdays																										
Sundays																									2	2
Legend:																										
1	Provide at least one through traffic lane open in direction of travel																									
2	Provide at least two adjacent through traffic lanes open in direction of travel																									
	Work permitted within project right of way where shoulder or lane closure is not required.																									
REMARKS:																										
<ol style="list-style-type: none"> See Lane Closure Restriction for Designated Legal Holidays and Special Days table in Maintain Traffic of these special provisions for additional closure restrictions. Closures of local roads will require City/County concurrence. 																										

Note to Design:

Above window must be re-evaluated or updated if actual construction takes place later than Year 2013.

Chart No. 2 Freeway/Expressway Lane Requirements																											
County: STA					Route/Direction: 99/ SB										PM: R21.9/23.2												
Closure Limits: from 1.7 mi South of the existing Hammett interchange, and 0.83 mi North of the existing Pelandale interchange																											
FROM HOUR TO HOUR		24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Mondays through Thursdays		1	1	1	1	1	2																		2	2	1
Fridays		1	1	1	1	1	2																				
Saturdays																											
Sundays																									2	2	1
Legend:																											
1	Provide at least one through traffic lane open in direction of travel																										
2	Provide at least two adjacent through traffic lanes open in direction of travel																										
	Work permitted within project right of way where shoulder or lane closure is not required.																										
REMARKS:																											
<ol style="list-style-type: none"> See Lane Closure Restriction for Designated Legal Holidays and Special Days table in Maintain Traffic of these special provisions for additional closure restrictions. Closures of local roads will require City/County concurrence. 																											

Note to Design:

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Chart No. 3 Complete Ramp Closure Hours/Ramp Lane Requirements																										
County: STA					Route/Direction: 99/NB										PM: R21.9/R23.2											
Closure Limits: 219 Separation (Broadway) On-ramp																										
FROM HOUR TO HOUR		24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays		C	C	C	C																		C	C	C	C
Fridays		C	C	C	C																					
Saturdays																										
Sundays																									C	C
Legend:																										
C		Ramp may be closed completely																								
		Work permitted within project right of way where shoulder or lane closure is not required.																								
REMARKS:																										
<ol style="list-style-type: none"> 1. See Lane Closure Restriction for Designated Legal Holidays and Special Days table in Maintain Traffic of these special provisions for additional closure restrictions. 2. Traffic shall utilize next off-ramp. 3. Closures of local roads will require City/County concurrence. 4. Opposing Ramps at the same location shall not be closed concurrently 																										

Note to Design:

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Chart No. 4 Complete Ramp Closure Hours/Ramp Lane Requirements																										
County: STA					Route/Direction: 99/NB										PM: R21.9/R23.2											
Closure Limits: 219 Separation (Broadway) Off-ramp																										
FROM HOUR TO HOUR		24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays		C	C	C	C	C																				C
Fridays		C	C	C	C	C																				
Saturdays																										
Sundays																										C
Legend:																										
C		Ramp may be closed completely																								
		Work permitted within project right of way where shoulder or lane closure is not required.																								
REMARKS:																										
<ol style="list-style-type: none"> 1. See Lane Closure Restriction for Designated Legal Holidays and Special Days table in Maintain Traffic of these special provisions for additional closure restrictions. 2. Traffic shall utilize next off-ramp. 3. Closures of local roads will require City/County concurrence. 4. Opposing Ramps at the same location shall not be closed concurrently 																										

Note to Design:

Above window must be re-evaluated or updated if actual construction takes place later than Year 2013.

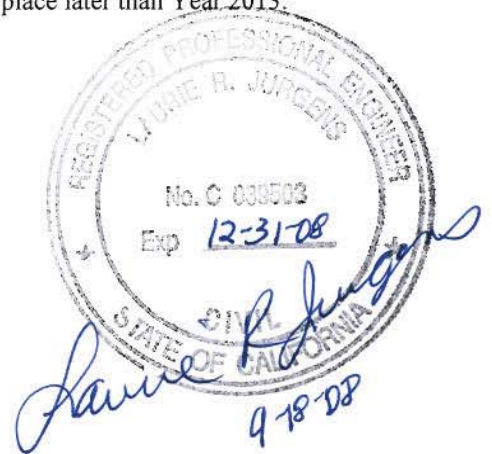


Chart No. 5 Complete Ramp Closure Hours/Ramp Lane Requirements																												
County: STA					Route/Direction: 99/SB										PM: R21.9/R23.2													
Closure Limits: 219 Separation (Broadway) On-ramp																												
FROM HOUR TO HOUR		24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
Mondays through Thursdays		C	C	C	C	C	C																		C	C	C	
Fridays		C	C	C	C	C	C																					
Saturdays																												
Sundays																										C	C	C
Legend:																												
C		Ramp may be closed completely																										
Work permitted within project right of way where shoulder or lane closure is not required.																												
REMARKS:																												
<ol style="list-style-type: none"> 1. See Lane Closure Restriction for Designated Legal Holidays and Special Days table in Maintain Traffic of these special provisions for additional closure restrictions. 2. Traffic shall utilize next off-ramp. 3. Closures of local roads will require City/County concurrence. 4. Opposing Ramps at the same location shall not be closed concurrently 																												

Note to Design:

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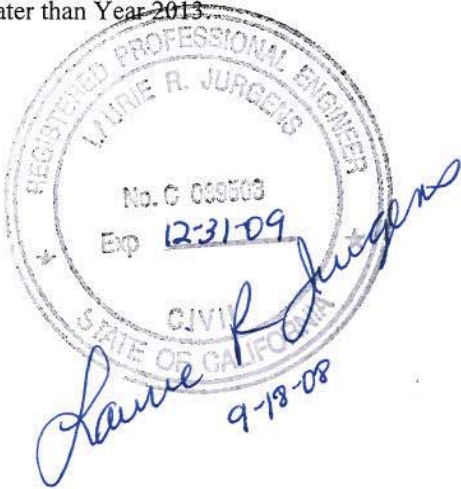


Chart No. 6 Complete Ramp Closure Hours/Ramp Lane Requirements																										
County: STA					Route/Direction: 99/SB										PM: R21.9/R23.2											
Closure Limits: 219 Separation (Broadway) Off-ramp																										
FROM HOUR TO HOUR		24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays		C	C	C	C	C																				C
Fridays		C	C	C	C	C																				
Saturdays																										
Sundays																										C
Legend:																										
C		Ramp may be closed completely																								
		Work permitted within project right of way where shoulder or lane closure is not required.																								
REMARKS:																										
<ol style="list-style-type: none"> 1. See Lane Closure Restriction for Designated Legal Holidays and Special Days table in Maintain Traffic of these special provisions for additional closure restrictions. 2. Traffic shall utilize next off-ramp. 3. Closures of local roads will require City/County concurrence. 4. Opposing Ramps at the same location shall not be closed concurrently 																										

Note to Design:

Above window must be re-evaluated or updated if actual construction takes place later than Year 2013.



**Chart No. 7
Complete Freeway/Expressway Closure Hours
(For Demolition, Falsework removal and erection)**

County:STA	Route/Direction:99/NB & SB	PM:R21.9/R23.2																								
Closure Limits: from 1.7 mi South of the existing Hammett interchange, and 0.83 mi North of the existing Pelandale interchange																										
FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Mondays through Thursdays	C	C	C	C																						
Fridays	C	C	C	C																						
Saturdays																										
Sundays																										
Legend:																										
C	Freeway or expressway may be closed completely.																									
	No complete freeway or expressway closure is permitted.																									
REMARKS:																										
<ol style="list-style-type: none"> 1. See Lane Closure Restriction for Designated Legal Holidays and Special Days table in Maintain Traffic of these special provisions for additional closure restrictions. 2. 7-day advance notice required. 3. Detour required. 4. Closures of local roads will require City/County concurrence. 5. Northbound and Southbound Shall not be closed simultaneously 																										

Note to Design:

Above window must be re-evaluated or updated if actual construction takes place later than Year 2013.



Chart No. 8 Freeway/Expressway Lane Requirements																										
County:STA					Route/Direction:99&219/ EB&WB										PM:R21.9/23.2											
Closure Limits: at 219 Separation Overcrossing																										
FROM HOUR TO HOUR		24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays		1	1	1	1	1																			1	1
Fridays		1	1	1	1	1																				
Saturdays																										
Sundays																									1	1
Legend:																										
1	Provide at least one through traffic lane open in direction of travel																									
	Work permitted within project right of way where shoulder or lane closure is not required.																									
REMARKS:																										
<ol style="list-style-type: none"> See Lane Closure Restriction for Designated Legal Holidays and Special Days table in Maintain Traffic of these special provisions for additional closure restrictions. Closures of local roads will require City/County concurrence. 																										

Note to Design:

Above window must be re-evaluated or updated if actual construction takes place later than Year 2013.



Chart No. 9 Complete Ramp Closure Hours/Ramp Lane Requirements																										
County: STA					Route/Direction: 99/NB										PM: R21.9/R23.2											
Closure Limits: Pelandale Ave NB On-ramp																										
FROM HOUR TO HOUR		24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays		C	C	C	C																		C	C	C	C
Fridays		C	C	C	C																					
Saturdays																										
Sundays																									C	C
Legend:																										
C		Ramp may be closed completely																								
		Work permitted within project right of way where shoulder or lane closure is not required.																								
REMARKS:																										
<ol style="list-style-type: none"> 1. See Lane Closure Restriction for Designated Legal Holidays and Special Days table in Maintain Traffic of these special provisions for additional closure restrictions. 2. Traffic shall utilize next off-ramp. 3. Closures of local roads will require City/County concurrence. 4. Opposing Ramps at the same location shall not be closed concurrently 																										

Note to Design:

Above window must be re-evaluated or updated if actual construction takes place later than Year 2013.

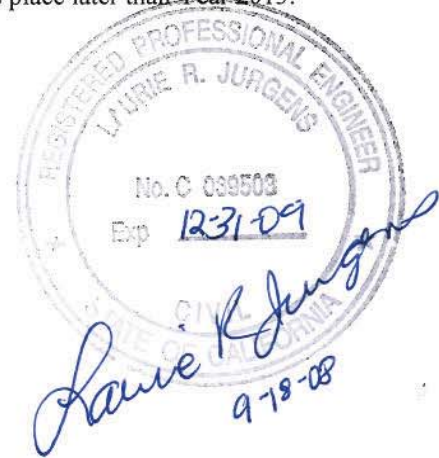


Chart No. 10 Complete Ramp Closure Hours/Ramp Lane Requirements																									
County: STA					Route/Direction: 99/SB										PM: R21.9/R23.2										
Closure Limits: Pelandale SB Off-ramp																									
FROM HOUR TO HOUR																									
	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	C	C	C	C	C	C																		C	C
Fridays	C	C	C	C	C	C																			
Saturdays																									
Sundays																								C	C
Legend:																									
C	Ramp may be closed completely																								
	Work permitted within project right of way where shoulder or lane closure is not required.																								
REMARKS:																									
<ol style="list-style-type: none"> 1. See Lane Closure Restriction for Designated Legal Holidays and Special Days table in Maintain Traffic of these special provisions for additional closure restrictions. 2. Traffic shall utilize next off-ramp. 3. Closures of local roads will require City/County concurrence. 4. Opposing Ramps at the same location shall not be closed concurrently 																									

Note to Design:

Above window must be re-evaluated or updated if actual construction takes place later than Year 2013.



(Attn OE Reviewer: Use in Dist 10 projects only)

{ XE "12-128_E_A03-16-07" }

Page 1 of 1

USE WITH 2006 STANDARDS.

Add to the end of SSP 12-100. Consult with the District Traffic Managers for editing of this table.

Lane Closure Restriction for Designated Legal Holidays and Special Days										
Thu	Fri	Sat	Sun	Mon	Tues	Wed	Thu	Fri	Sat	Sun
x	H xxx	xxx	xxx	xx						
	SD xxx									
	xxx	H xxx	xxx	xx						
		SD xxx								
	x	xxx	H xxx	xxx	xx					
			SD xxx							
	x	xxx	xxx	H xxx	xx					
				SD xxx						
			xxx	xxx	H xxx	xx				
					SD xxx					
					x	H xxx	xx			
						SD xxx				
						x	H xxx	xxx	xxx	xxx
							SD xxx			
Legends:										
	Refer to lane closure charts									
x	The full width of the traveled way shall be open for use by public traffic after 6:00 a.m. <u>No work that interferes with public traffic will be allowed after 6:00 a.m.</u>									
xx	<u>No work that interferes with public traffic will be allowed before 9:00 a.m.</u>									
xxx	The full width of the traveled way shall be open for use by public traffic. <u>No work that interferes with public traffic will be allowed.</u>									
H	Designated Legal Holiday									
SD	Special Day									

G. Cooperative Agreement

DEPARTMENT OF TRANSPORTATION

P.O. BOX 2048 (1976 E. CHARTER WAY)
STOCKTON, CA 95201 (95205)
PHONE (209) 948-7911
FAX (209) 948-3820
TTY: 711



2010

*Flex your power!
Be energy efficient!*

Copy to Chris B.

FILE ORIGINAL.

KIERNAN INTERCHANGES

December 20, 2010

Matt Machado
Stanislaus County
1010 10th Street, Ste 3500
Modesto, CA 95354

Dear Mr. Machado:

Enclosed is one (1) original fully executed Cooperative Agreement, Number 10-355. Please see that the appropriate people receive a copy.

The District acknowledges and appreciates the Stanislaus County's efforts in getting this Agreement executed.

If you have any questions, please call me at (209) 948-7911

Thank you for your assistance.

Sincerely,

A handwritten signature in cursive script that reads "Kristen Schenone".

Kristen Schenone
Cooperative Agreement Coordinator

Encl: Cooperative Agreement No. 10-355 (1)

COOPERATIVE AGREEMENT

This agreement, effective on December 16, 2010, is between the State of California, acting through its Department of Transportation, referred to as CALTRANS, and:

Stanislaus County, a political subdivision of the State of California, referred to as COUNTY.

For the purpose of this agreement, the term PARTNERS collectively refers to CALTRANS and COUNTY (all signatory parties to this agreement). The term PARTNER refers to any one of those signatory parties individually.

RECITALS

1. California Streets and Highways Code sections 114 and 130 authorize PARTNERS to enter into a cooperative agreement for performance of work within the State Highway System (SHS) right of way.
2. This agreement outlines the terms and conditions of cooperation between PARTNERS to complete PS&E, R/W, and Construction phases of PROJECT for reconstruction of the interchange at State Route (SR) 99/ SR 219/Kiernan Avenue in and near the City of Salida, in Stanislaus County.

For the purpose of this agreement, reconstruction of the interchange at State Route (SR) 99/SR 219/Kiernan Avenue in and near the City of Salida, in Stanislaus County will be referred to as PROJECT. All responsibilities assigned in this agreement to complete PS&E, R/W, and Construction phases of PROJECT will be referred to as OBLIGATIONS.

3. This agreement is separate from and does not modify or replace any other cooperative agreement or memorandum of understanding between PARTNERS regarding PROJECT.
4. Prior to this agreement, COUNTY developed the Project Initiation Document; COUNTY developed the Project Report (Cooperative Agreement No. 10-312).
5. COUNTY prepared the environmental documentation for PROJECT.
6. The estimated date for OBLIGATION COMPLETION is June 30, 2016.
7. In this agreement capitalized words represent defined terms and acronyms. The Definitions section contains a complete definition for each capitalized term.
8. From this point forward, PARTNERS define in this agreement the terms and conditions under which they will accomplish OBLIGATIONS.

RESPONSIBILITIES

9. COUNTY is SPONSOR for 100% of PROJECT.
10. CALTRANS will provide IQA for the portions of WORK within existing and proposed SHS right of way. CALTRANS retains the right to reject noncompliant WORK, protect public safety, preserve property rights, and ensure that all WORK is in the best interest of the SHS.
11. COUNTY may provide IQA for the portions of WORK outside existing and proposed SHS right of way.
12. COUNTY is the only FUNDING PARTNER for this agreement. COUNTY's funding commitment is defined in the FUNDING SUMMARY.

13. CALTRANS is the CEQA lead agency for PROJECT.
14. CALTRANS is the NEPA lead agency for PROJECT.
15. COUNTY is IMPLEMENTING AGENCY for PS&E, R/W and CONSTRUCTION.

SCOPE

Scope: General

16. PARTNERS will perform all OBLIGATIONS in accordance with federal and California laws, regulations, and standards; FHWA STANDARDS; and CALTRANS STANDARDS.
17. IMPLEMENTING AGENCY for a PROJECT COMPONENT will provide a Quality Management Plan (QMP) for that component as part of the PROJECT MANAGEMENT PLAN.
18. Any PARTNER may, at its own expense, have representatives observe any OBLIGATIONS performed by another PARTNER. Observation does not constitute authority over those OBLIGATIONS.
19. Each PARTNER will ensure that all of its personnel participating in OBLIGATIONS are appropriately qualified, and if necessary licensed, to perform the tasks assigned to them.
20. PARTNERS will invite each other to participate in the selection and retention of any consultants who participate in OBLIGATIONS.
21. If WORK is done under contract (not completed by a PARTNER's own employees) and is governed by the California Labor Code's definition of a "public work" (section 1720(a)(a)), that PARTNER will conform to sections 1720 – 1815 of the California Labor Code and all applicable regulations and coverage determinations issued by the Director of Industrial Relations.
22. IMPLEMENTING AGENCY for each PROJECT COMPONENT included in this agreement will be available to help resolve problems generated by that component for the entire duration of PROJECT.
23. CALTRANS will issue, upon proper application, the encroachment permits required for WORK within SHS right of way.

Contractors and/or agents, and utility owners will not perform WORK without an encroachment permit issued in their name.

24. If any PARTNER discovers unanticipated cultural, archaeological, paleontological, or other protected resources during WORK, all WORK in that area will stop and that PARTNER will notify all PARTNERS within 24 hours of discovery. WORK may only resume after a qualified professional has evaluated the nature and significance of the discovery and a plan is approved for its removal or protection.

25. PARTNERS will hold all administrative draft and administrative final reports, studies, materials, and documentation relied upon, produced, created, or utilized for PROJECT in confidence to the extent permitted by law. Where applicable, the provisions of California Government Code section 6254.5(e) will govern the disclosure of such documents in the event that PARTNERS share said documents with each other

PARTNERS will not distribute, release, or share said documents with anyone other than employees, agents, and consultants who require access to complete PROJECT without the written consent of the partner authorized to release them, unless required or authorized to do so by law.
26. If any PARTNER receives a public records request, pertaining to OBLIGATIONS, that PARTNER will notify PARTNERS within five (5) working days of receipt and make PARTNERS aware of any disclosed public records. PARTNERS will consult with each other prior to the release of any public documents related to the PROJECT. (S.a.33)
27. If HM-1 or HM-2 is found during a PROJECT COMPONENT, IMPLEMENTING AGENCY for that PROJECT COMPONENT will immediately notify PARTNERS.
28. CALTRANS, independent of PROJECT, is responsible for any HM-1 found within the existing SHS right of way. CALTRANS will undertake HM MANAGEMENT ACTIVITIES related to HM-1 with minimum impact to PROJECT schedule.
29. COUNTY, independent of PROJECT, is responsible for any HM-1 found within PROJECT limits and outside the existing SHS right of way. COUNTY will undertake or cause to be undertaken HM MANAGEMENT ACTIVITIES related to HM-1 with minimum impact to PROJECT schedule.
30. If HM-2 is found within PROJECT limits, the public agency responsible for the advertisement, award, and administration (AAA) of the PROJECT construction contract will be responsible for HM MANAGEMENT ACTIVITIES related to HM-2.
31. CALTRANS' acquisition or acceptance of title to any property on which any HM-1 or HM-2 is found will proceed in accordance with CALTRANS' policy on such acquisition.
32. PARTNERS will comply with all of the commitments and conditions set forth in the environmental documentation, environmental permits, approvals, and applicable agreements as those commitments and conditions apply to each PARTNER's responsibilities in this agreement.
33. IMPLEMENTING AGENCY for each PROJECT COMPONENT will furnish PARTNERS with written monthly progress reports during the implementation of OBLIGATIONS in that component.
34. Upon OBLIGATION COMPLETION, ownership and title to all materials and equipment constructed or installed for the operations and/or maintenance of the SHS within SHS right of way as part of WORK become the property of CALTRANS.

CALTRANS will not accept ownership of title to any materials or equipment constructed or installed outside SHS right of way.

- 35. IMPLEMENTING AGENCY for a PROJECT COMPONENT will accept, reject, compromise, settle, or litigate claims of any non-agreement parties hired to do WORK in that component.
- 36. PARTNERS will confer on any claim that may affect OBLIGATIONS or PARTNERS' liability or responsibility under this agreement in order to retain resolution possibilities for potential future claims. No PARTNER will prejudice the rights of another PARTNER until after PARTNERS confer on claim.
- 37. PARTNERS will maintain, and will ensure that any party hired by PARTNERS to participate in OBLIGATIONS will maintain, a financial management system that conforms to Generally Accepted Accounting Principles (GAAP), and that can properly accumulate and segregate incurred PROJECT costs, and provide billing and payment support.
- 38. PARTNERS will comply with the appropriate federal cost principles and administrative requirements outlined in the Applicable Cost Principles and Administrative Requirements table below. These principals and requirements apply to all funding types included in this agreement.

Applicable Cost Principles and Administration Requirements		
The federal cost principles and administrative requirements associated with each organization type apply to that organization.		
Organization Type	Cost Principles	Administrative Requirements
Federal Governments	2 CFR Part 225	OMB A-102
State and Local Government	2 CFR, Part 225	49 CFR, Part 18
Educational Institutions	2 CFR, Part 220	2 CFR, Part 215
Non-Profit Organizations	2 CFR, Part 230	2 CFR, Part 215
For Profit Organizations	48 CFR, Chapter 1, Part 31	49 CFR, Part 18
CFR (Code of Federal Regulations)		
OMB (Office of Management and Budget)		
Related URLs:		
• Various OMB Circular:	http://www.whitehouse.gov/omb/grants_circulars	
• Code of Federal Regulations:	http://www.gpoaccess.gov/CFR	

- 39. PARTNERS will maintain and make available to each other all OBLIGATIONS-related documents, including financial data, during the term of this agreement.
- 40. PARTNERS will retain all OBLIGATIONS-related records for three (3) years after the final voucher.
- 41. PARTNERS have the right to audit each other in accordance with generally accepted governmental audit standards.

CALTRANS, the state auditor, FHWA, and COUNTY will have access to all OBLIGATIONS-related records of each PARTNER, and any party hired by a PARTNER to participate in OBLIGATIONS, for audit, examination, excerpt, or transcription.

The examination of any records will take place in the offices and locations where said records are generated and/or stored and will be accomplished during reasonable hours of operation. The auditing PARTNER will be permitted to make copies of any OBLIGATIONS-related records needed for the audit.

The audited PARTNER will review the draft audit, findings, and recommendations, and provide written comments within 30 calendar days of receipt.

Upon completion of the final audit, PARTNERS have 30 days to refund or invoice as necessary in order to satisfy the obligation of the audit.

Any audit dispute not resolved by PARTNERS is subject to dispute resolution. Any costs arising out of the dispute resolution process will be paid within 30 calendar days of the final audit or dispute resolution findings.

42. Any PARTNER that hires another party to participate in OBLIGATIONS will conduct a pre-award audit of that party in accordance with the *Local Assistance Procedures Manual*.
43. PARTNERS will not incur costs beyond the funding commitments in this agreement. If IMPLEMENTING AGENCY anticipates that funding for WORK will be insufficient to complete WORK, IMPLEMENTING AGENCY will promptly notify SPONSOR.

IMPLEMENTING AGENCY has no obligation to perform WORK if funds to perform WORK are unavailable.

44. If WORK stops for any reason, IMPLEMENTING AGENCY will place all facilities impacted by WORK in a safe and operable condition acceptable to CALTRANS.
45. If WORK stops for any reason, each PARTNER will continue to implement all of its applicable commitments and conditions included in the PROJECT environmental documentation, permits, agreements, or approvals that are in effect at the time that WORK stops, as they apply to each PARTNER's responsibilities in this agreement, in order to keep PROJECT in environmental compliance until WORK resumes.
46. Each PARTNER accepts responsibility to complete the activities that it selected on the SCOPE SUMMARY. Activities marked with "N/A" on the SCOPE SUMMARY are not included in the scope of this agreement.

Scope: Environmental Permits, Approvals and Agreements

47. Each PARTNER identified in the Environmental Permits table below accepts the responsibility to complete the assigned activities.

Environmental Permits						
Permit	Coordinate	Prepare	Obtain	Implement	Renew	Amend
NPDES SWRCB	COUNTY	COUNTY	COUNTY	COUNTY	COUNTY	COUNTY
State Waste Discharge Requirements (Porter Cologne) RWQCB	COUNTY	COUNTY	COUNTY	COUNTY	COUNTY	COUNTY
Air Quality Permits	COUNTY	COUNTY	COUNTY	COUNTY	COUNTY	COUNTY

Scope: Plans, Specifications, and Estimate (PS&E)

- 48. COUNTY will ensure that the engineering firm preparing the plans, specifications, and estimate will not be employed by or under contract to the PROJECT construction contractor.

COUNTY will not employ the engineering firm preparing the plans, specifications, and estimate for construction management of PROJECT.

However, COUNTY may retain the engineering firm during the construction PROJECT COMPONENT to check shop drawings, do soil foundation tests, test construction materials, and perform construction surveys.

- 49. COUNTY will identify and locate all utility facilities within PROJECT area as part of PS&E responsibilities. The plans, specifications, and estimate for PROJECT will identify all utility facilities not relocated or removed in advance of the construction PROJECT COMPONENT.
- 50. COUNTY will make all necessary arrangements with utility owners for the timely accommodation, protection, relocation, or removal of any existing utility facilities that conflict with construction of PROJECT or that violate CALTRANS' encroachment policy.

Scope: Right of Way (R/W)

- 51. COUNTY will provide a land surveyor licensed in the State of California to be responsible for surveying and right of way engineering. All survey and right of way engineering documents will bear the professional seal, certificate number, registration classification, expiration date of certificate, and signature of the responsible surveyor.
- 52. COUNTY will provide CALTRANS-approved verification of its arrangements for the protection, relocation, or removal of all conflicting facilities and that such work will be completed prior to construction contract award or as otherwise stated in the PROJECT plans, specifications, and estimate. This verification must include references to all required SHS encroachment permits.

53. COUNTY will utilize a public agency currently qualified by CALTRANS or a properly licensed consultant for all right of way activities. A qualified right of way agent will administer all right of way consultant contracts.

COUNTY will submit a draft Right of Way Certification document to CALTRANS six weeks prior to the scheduled milestone date for review.

COUNTY will submit a final Right of Way certification document to CALTRANS prior to PROJECT advertisement for approval.

54. COUNTY will prepare and provide to CALTRANS a Right of Way Certification prior to PROJECT advertisement.
55. All right of way conveyances must be completed prior to OBLIGATION COMPLETION.
56. CALTRANS' acceptance of right of way title is subject to review of an Updated Preliminary Title Report provided by COUNTY verifying that the title is free of all encumbrances and liens. Upon acceptance, COUNTY will provide CALTRANS with a Policy of Title Insurance in CALTRANS' name.
57. The COUNTY will hear Resolutions of Necessity.

Scope: CONSTRUCTION

58. COUNTY will advertise, open bids, award, and approve the construction contract in accordance with the California Public Contract Code and the California Labor Code.

COUNTY will not advertise the construction contract until CALTRANS completes or accepts the final plans, specifications, and estimate package; CALTRANS approves the Right of Way Certification; and SPONSOR verifies full funding of CONSTRUCTION SUPPORT and CONSTRUCTION CAPITAL.

By accepting responsibility to advertise and award the construction contract, COUNTY also accepts responsibility to administer the construction contract.

59. COUNTY will provide a RESIDENT ENGINEER and construction support staffs that are independent of the design engineering company and construction contractor.
60. COUNTY will provide a landscape architect.
61. IMPLEMENTING AGENCY will implement changes to the construction contract through contract change orders (CCOs). PARTNERS will review and concur on all CCOs over \$100,000.

CALTRANS must approve all CCOs affecting public safety or the preservation of property, all design and specification changes, and all major changes as defined in the CALTRANS *Construction Manual* prior to implementing the CCO.

62. If the lowest responsible construction contract bid is greater than the funding commitment to CONSTRUCTION CAPITAL, all PARTNERS must be involved in determining how to proceed. If PARTNERS do not agree in writing on a course of action within 15 working days, this agreement will terminate.
63. COUNTY will require the construction contractor to furnish payment and performance bonds naming COUNTY as obligee, and CALTRANS as additional obligee, and to carry liability insurance in accordance with CALTRANS specifications.
64. As IMPLEMENTING AGENCY for CONSTRUCTION, COUNTY is responsible for maintenance within PROJECT limits as part of the construction contract.
65. PARTNERS will execute a separate maintenance agreement prior to OBLIGATION COMPLETION.
66. Any Landscape work above State standards, will be maintained by COUNTY, and a Maintenance Agreement will be executed prior to construction.

COST

Cost: General

67. The cost of any awards, judgments, or settlements generated by OBLIGATIONS is an OBLIGATIONS COST.
68. CALTRANS, independent of PROJECT, will pay all costs for HM MANAGEMENT ACTIVITIES related to HM-1 found within the existing SHS right of way.
69. COUNTY, independent of PROJECT, will pay, or cause to be paid, all costs for HM MANAGEMENT ACTIVITIES related to HM-1 found within PROJECT limits and outside of the existing SHS right of way.
70. HM MANAGEMENT ACTIVITIES costs related to HM-2 are CONSTRUCTION SUPPORT and CONSTRUCTION CAPITAL costs.
71. The cost to comply with and implement the commitments set forth in the environmental documentation is an OBLIGATIONS COST.
72. The cost to ensure that PROJECT remains in environmental compliance is an OBLIGATIONS COST.
73. The cost of any legal challenges to the CEQA or NEPA environmental process or documentation is an OBLIGATIONS COST.
74. Independent of OBLIGATIONS COST, CALTRANS will fund the cost of its own IQA for WORK done within existing or proposed future SHS right of way.

75. Independent of OBLIGATIONS COST, COUNTY will fund the cost of its own IQA for WORK done outside existing or proposed future SHS right of way.
76. CALTRANS will provide encroachment permits to COUNTY at no cost. CALTRANS will charge contractors, consultants, and agents the standard encroachment permit fees.
77. Fines, interest, or penalties levied against a PARTNER will be paid, independent of OBLIGATIONS COST, by the PARTNER whose actions or lack of action caused the levy. That PARTNER will indemnify and defend each other PARTNER.
78. Travel, per diem, and third-party contract reimbursements are an OBLIGATIONS COST only after those hired by PARTNERS to participate in OBLIGATIONS incur and pay those costs.

Payments for travel and per diem will not exceed the rates paid rank and file state employees under current California Department of Personnel Administration (DPA) rules current at the effective date of this agreement.

If COUNTY invoices for rates in excess of DPA rates, COUNTY will fund the cost difference and reimburse CALTRANS for any overpayment.

79. The cost of any engineering support performed by CALTRANS includes all direct and applicable indirect costs. CALTRANS calculates indirect costs based solely on the type of funds used to pay support costs. State and federal funds are subject the current Program Functional Rate. Local funds are subject to the current Program Functional Rate and the current Administration Rate. The Program Functional Rate and the Administration Rate are adjusted periodically.
80. If any PARTNER reimburses another PARTNER for any costs later determined to be unallowable, the PARTNER that received the reimbursement will reimburse those funds.
81. The cost to place PROJECT right of way in a safe and operable condition and meet all environmental commitments is an OBLIGATIONS COST.
82. Because IMPLEMENTING AGENCY is responsible for managing the scope, cost, and schedule of a project component, if there are insufficient funds available in this agreement to place the right of way in a safe and operable condition, the appropriate IMPLEMENTING AGENCY accepts responsibility to fund these activities until such time as PARTNERS amend this agreement.

That IMPLEMENTING AGENCY may request reimbursement for these costs during the amendment process.

83. If there are insufficient funds in this agreement to implement applicable commitments and conditions included in the PROJECT environmental documentation, permits, agreements, and/or approvals that are in effect at a time that WORK stops, each PARTNER implementing commitments or conditions accepts responsibility to fund these activities, as they apply to each PARTNER's responsibilities, until such time are PARTNERS amend this agreement.

Each PARTNER may request reimbursement for these costs during the amendment process.

84. PARTNERS will pay invoices within 30 calendar days of receipt of invoice.

Cost: Environmental Permits, Approvals and Agreements

85. The cost of coordinating, obtaining, complying with, implementing, and if necessary renewing and amending resource agency permits, agreements, and/or approvals is an OBLIGATIONS COST.

Cost: Plans, Specifications, and Estimate (PS&E)

86. COUNTY will determine the cost to positively identify and locate, protect, relocate, or remove any utility facilities whether inside or outside SHS right of way in accordance with federal and California laws and regulations, and CALTRANS' policies, procedures, standards, practices, and applicable agreements including, but not limited to, Freeway Master Contracts.

87. Each PARTNER listed below may submit invoices for PS&E:

- CALTRANS may invoice COUNTY

Cost: CONSTRUCTION Support

88. The cost to maintain the SHS within PROJECT limits is an OBLIGATIONS COST until PARTNERS execute a separate maintenance agreement.

89. Each PARTNER listed below may submit invoices for CONSTRUCTION Support:

- CALTRANS may invoice COUNTY

SCHEDULE

90. PARTNERS will manage the schedule for OBLIGATIONS through the work plan included in the PROJECT MANAGEMENT PLAN.

GENERAL CONDITIONS

91. PARTNERS understand that this agreement is in accordance with and governed by the Constitution and laws of the State of California. This agreement will be enforceable in the State of California. Any PARTNER initiating legal action arising from this agreement will file and maintain that legal action in the Superior Court of the county in which the CALTRANS district office that is signatory to this agreement resides, or in the Superior Court of the county in which PROJECT is physically located

92. All OBLIGATIONS of CALTRANS under the terms of this agreement are subject to the appropriation of resources by the Legislature, the State Budget Act authority, and the allocation of funds by the California Transportation Commission.

93. Any PARTNER performing IQA does so for its own benefit. No one can assign liability to that PARTNER due to its IQA activities.
94. Neither COUNTY nor any officer or employee thereof is responsible for any injury, damage or liability occurring by reason of anything done or omitted to be done by CALTRANS under or in connection with any work, authority, or jurisdiction conferred upon CALTRANS under this agreement.

It is understood and agreed that CALTRANS will fully defend, indemnify, and save harmless COUNTY and all of its officers and employees from all claims, suits, or actions of every name, kind, and description brought forth under, but not limited to, tortious, contractual, inverse condemnation, or other theories or assertions of liability occurring by reason of anything done or omitted to be done by CALTRANS under this agreement. (L.I.42)

95. Neither CALTRANS nor any officer or employee thereof is responsible for any injury, damage, or liability occurring by reason of anything done or omitted to be done by COUNTY under or in connection with any work, authority, or jurisdiction conferred upon COUNTY under this agreement.

It is understood and agreed that COUNTY will fully defend, indemnify, and save harmless CALTRANS and all of its officers and employees from all claims, suits, or actions of every name, kind, and description brought forth under, but not limited to, tortious, contractual, inverse condemnation, or other theories or assertions of liability occurring by reason of anything done or omitted to be done by COUNTY under this agreement.

96. PARTNERS do not intend this agreement to create a third party beneficiary or define duties, obligations, or rights in parties not signatory to this agreement. PARTNERS do not intend this agreement to affect their legal liability by imposing any standard of care for fulfilling OBLIGATIONS different from the standards imposed by law.
97. PARTNERS will not assign or attempt to assign OBLIGATIONS to parties not signatory to this agreement.
98. PARTNERS will not interpret any ambiguity contained in this agreement against each other. PARTNERS waive the provisions of California Civil Code section 1654.
99. A waiver of a PARTNER's performance under this agreement will not constitute a continuous waiver of any other provision. An amendment made to any article or section of this agreement does not constitute an amendment to or negate all other articles or sections of this agreement.
100. A delay or omission to exercise a right or power due to a default does not negate the use of that right or power in the future when deemed necessary.
101. If any PARTNER defaults in its OBLIGATIONS, a non-defaulting PARTNER will request in writing that the default be remedied within 30 calendar days. If the defaulting PARTNER fails to do so, the non-defaulting PARTNER may initiate dispute resolution.

102. PARTNERS will first attempt to resolve agreement disputes at the PROJECT team level. If they cannot resolve the dispute themselves, the CALTRANS district director and the executive officer of COUNTY will attempt to negotiate a resolution. If PARTNERS do not reach a resolution, PARTNERS' legal counsel will initiate mediation. PARTNERS agree to participate in mediation in good faith and will share equally in its costs.

Neither the dispute nor the mediation process relieves PARTNERS from full and timely performance of OBLIGATIONS in accordance with the terms of this agreement. However, if any PARTNER stops fulfilling OBLIGATIONS, any other PARTNER may seek equitable relief to ensure that OBLIGATIONS continue.

Except for equitable relief, no PARTNER may file a civil complaint until after mediation, or 45 calendar days after filing the written mediation request, whichever occurs first.

PARTNERS will file any civil complaints in the Superior Court of the county in which the CALTRANS district office signatory to this agreement resides. The prevailing PARTNER will be entitled to an award of all costs, fees, and expenses, including reasonable attorney fees as a result of litigating a dispute under this agreement or to enforce the provisions of this article including equitable relief.

103. PARTNERS maintain the ability to pursue alternative or additional dispute remedies if a previously selected remedy does not achieve resolution.
104. If any provisions in this agreement are deemed to be, or are in fact, illegal, inoperative, or unenforceable, those provisions do not render any or all other agreement provisions invalid, inoperative, or unenforceable, and PARTNERS will automatically sever those provisions from this agreement.
105. PARTNERS intend this agreement to be their final expression and supersede any oral understanding or writings pertaining to OBLIGATIONS.
106. If during performance of WORK additional activities or environmental documentation is necessary to keep PROJECT in environmental compliance, PARTNERS will amend this agreement to include completion of those additional tasks.
107. PARTNERS will execute a formal written amendment if there are any changes to OBLIGATIONS.
108. This agreement will terminate upon OBLIGATION COMPLETION or an amendment to terminate this agreement, whichever occurs first.

However, all indemnification, document retention, audit, claims, environmental commitment, legal challenge, and ownership articles will remain in effect until terminated or modified in writing by mutual agreement.

109. The following documents are attached to, and made an express part of this agreement: SCOPE SUMMARY, FUNDING SUMMARY.

DEFINITIONS

CALTRANS – The California Department of Transportation

CALTRANS STANDARDS – CALTRANS policies and procedures, including, but not limited to, the guidance provided in the *Guide to Capital Project Delivery Workplan Standards* (previously known as WBS Guide) available at <http://www.dot.ca.gov/hq/projmgmt/guidance.htm>.

CEQA (California Environmental Quality Act) – The act (California Public Resources Code, sections 21000 et seq.) that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those significant impacts, if feasible.

CFR (Code of Federal Regulations) – The general and permanent rules published in the Federal Register by the executive departments and agencies of the federal government

CONSTRUCTION CAPITAL – See PROJECT COMPONENT.

CONSTRUCTION SUPPORT – See PROJECT COMPONENT.

COOPERATIVE AGREEMENT CLOSURE STATEMENT – A document signed by PARTNERS that verifies the completion of all OBLIGATIONS included in this agreement and in all amendments to this agreement.

COST – The responsibility for cost responsibilities in this agreement can take one of three assignments:

- **OBLIGATIONS COST** – A cost associated with fulfilling OBLIGATIONS that will be funded as part of this agreement. The responsibility is defined by the funding commitments in this agreement.
- **PROJECT COST** – A cost associated with PROJECT that can be funded outside of OBLIGATIONS. A PROJECT COST may not necessarily be part of this agreement. This responsibility is defined by the PARTNERS' funding commitments at the time the cost is incurred.
- **PARTNER cost** – A cost that is the responsibility of a specific PARTNER, independent of PROJECT.

FHWA – Federal Highway Administration

FHWA STANDARDS – FHWA regulations, policies and procedures, including, but not limited to, the guidance provided at www.fhwa.dot.gov/topics.htm.

FUNDING PARTNER – A PARTNER that commits a defined dollar amount to fulfill OBLIGATIONS. Each FUNDING PARTNER accepts responsibility to provide the funds identified on the FUNDING SUMMARY under its name.

FUNDING SUMMARY – The table that designates an agreement's funding sources, types of funds, and the PROJECT COMPONENT in which the funds are to be spent. Funds listed on the FUNDING SUMMARY are "not-to-exceed" amounts for each FUNDING PARTNER.

GAAP (Generally Accepted Accounting Principles) – Uniform minimum standards and guidelines for financial accounting and reporting issued by the Federal Accounting Standards Advisory Board that serve to achieve some level of standardization. See <http://www.fasab.gov/accepted.html>.

HM-1 – Hazardous material (including, but not limited to, hazardous waste) that may require removal and disposal pursuant to federal or state law whether it is disturbed by PROJECT or not.

HM-2 – Hazardous material (including, but not limited to, hazardous waste) that may require removal and disposal pursuant to federal or state law only if disturbed by PROJECT.

HM MANAGEMENT ACTIVITIES – Management activities related to either HM-1 or HM-2 including, without limitation, any necessary manifest requirements and disposal facility designations.

IMPLEMENTING AGENCY – The PARTNER responsible for managing the scope, cost, and schedule of a PROJECT COMPONENT to ensure the completion of that component.

IQA (Independent Quality Assurance) – Ensuring that IMPLEMENTING AGENCY’s quality assurance activities result in WORK being developed in accordance with the applicable standards and within an established Quality Management Plan (QMP). IQA does not include any work necessary to actually develop or deliver WORK or any validation by verifying or rechecking work performed by another partner.

NEPA (National Environmental Policy Act of 1969) – The federal act that establishes a national policy for the environment and a process to disclose the adverse impacts of projects with a federal nexus.

OBLIGATION COMPLETION – PARTNERS have fulfilled all OBLIGATIONS included in this agreement, and all amendments to this agreement, and have signed a COOPERATIVE AGREEMENT CLOSURE STATEMENT.

OBLIGATIONS – All responsibilities included in this agreement.

OBLIGATIONS COST – See COST.

OMB (Office of Management and Budget) – The federal office that oversees preparation of the federal budget and supervises its administration in Executive Branch agencies.

PARTNER – Any individual signatory party to this agreement.

PARTNERS – The term that collectively references all of the signatory agencies to this agreement. This term only describes the relationship between these agencies to work together to achieve a mutually beneficial goal. It is not used in the traditional legal sense in which one PARTNER’s individual actions legally bind the other partners.

PROJECT – The undertaking to reconstruction of the interchange at State Route (SR) 99/SR 219/Kiernan Avenue in and near the City of Salida, in Stanislaus County.

PROJECT COMPONENT – A distinct portion of the planning and project development process of a capital project as outlined in California Government Code, section 14529(b).

- **PID (Project Initiation Document)** – The activities required to deliver the project initiation document for PROJECT.
- **PA&ED (Project Approval and Environmental Document)** – The activities required to deliver the project approval and environmental documentation for PROJECT.
- **PS&E (Plans, Specifications, and Estimate)** – The activities required to deliver the plans, specifications, and estimate for PROJECT.
- **R/W (Right of Way) SUPPORT** – The activities required to obtain all property interests for PROJECT
- **R/W (Right of Way) CAPITAL** – The funds for acquisition of property rights for PROJECT.
- **CONSTRUCTION SUPPORT** – The activities required for the administration, acceptance, and final documentation of the construction contract for PROJECT.
- **CONSTRUCTION CAPITAL** – The funds for the construction contract.

PROJECT COST – See COST.

PROJECT MANAGEMENT PLAN – A group of documents used to guide a project’s execution and control throughout that project’s lifecycle.

PS&E (Plans, Specifications, and Estimate) – See PROJECT COMPONENT.

QMP (Quality Management Plan) – An integral part of the Project Management Plan that describes IMPLEMENTING AGENCY’s quality policy and how it will be used.

RESIDENT ENGINEER – A civil engineer licensed in the State of California who is responsible for construction contract administration activities. Said engineer must be independent of the design engineering company and the construction contractor.

R/W (Right of Way) CAPITAL – See PROJECT COMPONENT.

R/W (Right of Way) SUPPORT – See PROJECT COMPONENT.

SAFETEA-LU – Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users

SCOPE SUMMARY – The attachment in which each PARTNER designates its commitment to specific scope activities within each PROJECT COMPONENT as outlined by the *Guide to Capital Project Delivery Workplan Standards* (previously known as WBS Guide) available at <http://www.dot.ca.gov/hq/projmgmt/guidance.htm>.

SHS (State Highway System) – All highways, right of way, and related facilities acquired, laid out, constructed, improved, or maintained as a state highway pursuant to constitutional or legislative authorization.

SPONSOR – Any PARTNER that accepts the responsibility to establish scope of PROJECT and the obligation to secure financial resources to fund PROJECT. SPONSOR is responsible for adjusting the PROJECT scope to match committed funds or securing additional funds to fully fund the PROJECT

scope. If a PROJECT has more than one SPONSOR, funding adjustments will be made by percentage (as outlined in Responsibilities). Scope adjustments must be developed through the project development process and must be approved by CALTRANS as the owner/operator of the SHS.

SFM (State Furnished Material) – Any materials or equipment supplied by CALTRANS.

WORK – All scope activities included in this agreement.

CONTACT INFORMATION

The information provided below indicates the primary contact data for each PARTNER to this agreement. PARTNERS will notify each other in writing of any personnel or location changes. Contact information changes do not require an amendment to this agreement.

The primary agreement contact person for CALTRANS is:
Christina Hibbard, Project Manager
1976 E. Dr. MLK Jr. Blvd
Stockton, California 95205
Office Phone: (209) 948-7889
Mobile Phone: (209) 351-4432
Fax Number: (209) 948-7666
Email: christina_hibbard@dot.ca.gov

The primary agreement contact person for COUNTY is:
Chris Brady, County Engineer
1716 Morgan Road
Modesto, California 95354
Office Phone: (209) 262-5887
Email: bradyc@stancounty.com

SIGNATURES

PARTNERS declare that:


1. Each PARTNER is an authorized legal entity under California state law.
2. Each PARTNER has the authority to enter into this agreement.
3. The people signing this agreement have the authority to do so on behalf of their public agencies.

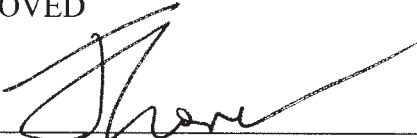
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

STANISLAUS COUNTY

APPROVED

APPROVED

By: 
 RICHARD A. HARMON
 Interim District 10 Director

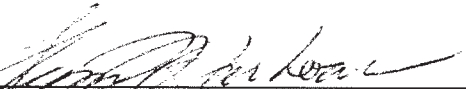
By: 
 Jeff Grover
 Chairman of the Board of Supervisors


Date: 12/16/10

Date: DEC 02 2010

CERTIFIED AS TO FUNDS:


ATTEST

By: 
 Thomas L. Harbour
 District Budget Representative

By: 
 Matt Machado
 Director of Public Works

Date: 12/16/10

Date: 11/22/10

By: 
 Christine Ferraro Tallman
 Clerk of the Board of Supervisors

Date: DEC 02 2010

APPROVED AS TO FORM AND PROCEDURE

By: 
 John P. Doering
 Stanislaus County Counsel

Date: 12/1/10

SCOPE SUMMARY

4	5	6	7	8	Description	CALTRANS	COUNTY	N/A
3	185				Prepare Base Maps and Plan Sheets for PS&E Development		X	
4	195				Right of Way Property Management and Excess Land		X	
4	200				Utility Relocation		X	
3	205				Permits, Agreements during PS&E Component	X	X	
		05			Required permits		X	
		15			Railroad Agreements		X	
		25			Agreement for Material Sites		X	
		30			Executed Maintenance Agreement	X	X	
		45			MOU From Tribal Employment Rights Office (TERO)		X	
		55			NEPA Delegation	X		
4	220				RIGHT OF WAY ENGINEERING		X	
4	225				Obtain Right of Way Interests for Project Right of Way Certification		X	
3	230				Prepare Draft Plans, Specifications, and Estimates	X	X	
		05			Draft Roadway Plans		X	
		10			Draft Highway Planting Plans		X	
		15			Draft Traffic Plans		X	
		20			Transportation Management Plan		X	
		25			Draft Utility Plans		X	
		30			Draft Drainage Plans		X	
		35			Draft Specifications		X	
		40			Draft Plans, Specifications, and Estimates Quantities and Estimates		X	
		55			Structures Draft Plans, Specifications, and Estimates Incorporation		X	
		60			Updated Project Information for Plans, Specifications, and Estimates Package		X	
		90			NEPA Delegation	X		
		99			Other Draft Plans, Specifications, and Estimates Products		X	
3	235				Mitigate Environmental Impacts and Clean Up Hazardous Waste	X	X	
		05			Environmental Mitigation		X	
		10			Detailed Site Investigation for Hazardous Waste		X	
		15			Hazardous Waste Management Plan		X	
		20			Hazardous Waste Plans, Specifications, and Estimates		X	
		25			Hazardous Waste Clean-Up		X	
		30			Hazardous Substances Disclosure Document (HSDD)		X	
		35			Long Term Mitigation Monitoring		X	
		40			Updated Environmental Commitments Record		X	
		45			NEPA Delegation	X		
3	240				Draft Structures Plans, Specifications, and Estimates		X	
4	245				Post Right of Way Certification Work		X	
3	250				FINAL STRUCTURES PS&E PACKAGE		X	

4	5	6	7	8	Description	CALTRANS	COUNTY	N/A
3	255				Circulate, Review, and Prepare Final District Plans, Specifications, and Estimates Package	X	X	
		05			Circulated and Reviewed Draft District Plans, Specifications, and Estimates Package		X	
		10			Updated Plans, Specifications, and Estimates Package		X	
		15			Environmental Re-Evaluation	X		
		20			Final District Plans, Specifications, and Estimates Package		X	
		25			Geotechnical Information Handout		X	
		30			Materials Information Handout		X	
		35			Construction Staking Package and Control		X	
		40			Resident Engineer's Pending File		X	
		45			NEPA Delegation	X		
		50			Secured Lease for Resident Engineer Office Space or Trailer		X	
		55			Contractor Outreach		X	
		65			Right of Way Certification Document		X	
		70			Right of Way Engineering Products		X	
		75			Upgraded/Updated Right of Way Certification Document		X	
		95			Right of Way Certification Activity		X	
3	260				Contract Bid Documents Ready to List		X	
3	265				Awarded and Approved Construction Contract		X	
		50			Contract Ready for Advertising		X	
		55			Advertised Contract		X	
		60			Bids Opened		X	
		65			Contract Award		X	
		70			Executed and Approved Contract		X	
		75			Independent Assurance		X	
5	270				Construction Engineering and General Contract Administration	X	X	
		10			Construction Staking Package and Control		X	
		15			Construction Stakes		X	
		20			Construction Engineering Work		X	
		25			Construction Contract Administration Work		X	
			05		Secured Lease for Resident Engineer Office Space or Trailer		X	
			10		Set Up Construction Project Files		X	
			15		Pre-Construction Meeting		X	
			20		Progress Pay Estimates		X	
			25		Weekly Statement of Working Days		X	
			30		Construction Project Files and General Field Office Clerical Work		X	
			35		Labor Compliance Activities		X	
			40		Approved Subcontractor Substitutions		X	
			45		Coordination		X	
			50		Civil Rights Contract Compliance		X	
			99		Other Construction Contract Administration Products		X	
		30			Contract Item Work Inspection		X	

4	5	6	7	8	Description	CALTRANS	COUNTY	N/A
		35			Construction Material Sampling and Testing	X	X	
			05		Materials Sampling and Testing for Quality Assurance		X	
			10		Plant Inspection for Quality Assurance		X	
			15		Independent Assurance Sampling and Testing		X	
			20		Source Inspection	X		
		40			Safety and Maintenance Reviews		X	
		45			Relief From Maintenance Process		X	
		55			Final Inspection and Acceptance Recommendation		X	
		60			Plant Establishment Administration		X	
		65			Transportation Management Plan Implementation During Construction		X	
		75			NOTE: all permits under 5.270.75 are addressed in the text of this agreement.		X	
		80			Long-Term Environmental Mitigation/Mitigation Monitoring During Construction Contract		X	
		99			Other Construction Engineering and General Contract Administration		X	
5	275				Construction Engineering and General Contract Administration of Structures Work		X	
5	285				Contract Change Order Administration		X	
5	290				Resolve Contract Claims		X	
5	295				Accept Contract, Prepare Final Construction Estimate, and Final Report		X	
4	300				FINAL RIGHT OF WAY ENGINEERING		X	

FUNDING SUMMARY

Funding Source	Funding Partner	Funding Type	PS&E	R/W Capital	R/W Support	CON Capital	CON Support
LOCAL	COUNTY	Local	\$4,880,000	\$8,483,000	\$2,120,000	\$58,040,000	\$5,800,000
		Subtotals by Component	\$4,880,000	\$8,483,000	\$2,120,000	\$58,040,000	\$5,800,000

Funding Source	Funding Partner	Funding Type	Subtotal Support	Subtotal Capital	Subtotal Funds Type
LOCAL	COUNTY	Local	\$12,800,000	\$66,523,000	\$79,323,000
		Subtotals by Component	\$12,800,000	\$66,523,000	\$79,323,000

H. Project Cost Estimate

**ROUTE 99/ROUTE 219 (KIERNAN AVENUE) PROJECT
PRELIMINARY PROJECT COST ESTIMATE SUMMARY
TOTAL ESCALATED IMPLEMENTATION COST**

<u>DIST - CO - RTE</u>	<u>10-STA-99</u>
<u>Type of Estimate</u>	<u>PR</u>
PM:	21.9/23.1
Project ID:	10 0000 0100
PP No. :	
Date:	3/14/2011

Limits:

In Stanislaus County

From 0.6mile south of Route 219 OC to 0.6 mile north of Route 219 OC

**Proposed Improvement:
(Scope)**

Replace Existing Compact Diamond Interchange

Alternative 1 - Compact Diamond

Increase drainage and landscaping cost

Reduced Right of Way Cost

<u>COMPONENT</u>	<u>PCT</u>	<u>OF</u>	<u>2010 DOLLARS</u>	<u>START OF COST</u>	<u>ANNUAL PCT ESCALATION</u>	<u>ESCALATED COST</u>
PAED			\$1,048,000	9/1/2009		\$1,048,000
PS&E	10.0%	CONST	\$4,081,000	1/1/2010		\$4,081,000
R/W Support	10%	R/W	\$527,000	6/1/2011	5.0%	\$553,000
R/W Capitol	100%	R/W	\$5,274,000	6/1/2011	9.9%	\$5,795,400
Constr. Support	10%	CONST	\$4,081,000	10/1/2012	5.0%	\$4,574,000
<u>Construction</u>	<u>100%</u>	<u>CONST</u>	<u>\$40,806,000</u>	10/1/2012	<u>3.0%</u>	<u>\$43,724,000</u>
TOTAL ESCALATED COST			\$55,817,000			\$59,775,400
					CONST + CM	\$48,298,000

**ROUTE 99/ROUTE 219 (KIERNAN AVENUE) PROJECT
PRELIMINARY PROJECT COST ESTIMATE SUMMARY
SUPPORT COSTS (ESCALATED)**

Date: 3/14/2011

Limits: In Stanislaus County

From 0.6mile south of Route 219 OC to 0.6 mile north of Route 219 OC

Proposed Improvement: Replace Existing Compact Diamond Interchange

(Scope) Alternative 1 - Compact Diamond

Increase drainage and landscaping cost

<u>COMPONENT</u>	<u>FY 09-10</u>	<u>FY 10-11</u>	<u>FY 11-12</u>	<u>FY 12-13</u>	<u>TOTAL</u>
PAED	\$1,048,000				\$1,048,000
PS&E		\$4,081,000			\$4,081,000
R/W Support			\$553,000		\$553,000
<u>Constr. Support</u>				<u>\$4,574,000</u>	<u>\$4,574,000</u>
TOTAL ESC. COST	\$1,048,000	\$4,081,000	\$553,000	\$4,574,000	\$9,208,000

**ROUTE 99/ROUTE 219 (KIERNAN AVENUE) PROJECT
PRELIMINARY PROJECT COST ESTIMATE SUMMARY**

DIST - CO - RTE 10-STA-99
PM: 21.9/23.1
Project ID: 10 0000 0100
Program Code: _____

Project Description: Route 99/Kiernan Avenue Interchange Project

Limits: In Stanislaus County


Proposed Improvement: Modified Compact Diamond (Type-1) Interchange
(Scope) Estimate in 2010 Dollars

Alternative: Alternative 1

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	\$25,407,000
TOTAL STRUCTURE ITEMS	\$15,399,000
SUBTOTAL CONSTRUCTION COSTS	\$40,806,000
TOTAL RIGHT OF WAY ITEMS	\$5,274,000
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$46,080,000

Reviewed by District Project Manager _____
(Signature)

Approved by  _____
Project Manager (Signature)

Date 14-Mar-11

Phone No. 408-280-2772

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE
10-STA-99
 PM: 21.9/23.1
 Project ID: 10 0000 0100

I. ROADWAY ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
<u>Section 1 - Earthwork</u>					
Roadway Excavation	100,159	CY	\$11.00	\$1,101,753	
Imported Borrow		CY		\$0	
Clearing & Grubbing	Lump Sum	LS	\$200,000.00	\$200,000	
Develop Water Supply	Lump Sum	LS	\$50,000.00	\$50,000	
Project Schedule	Lump Sum	LS	\$50,000.00	\$50,000	
				<u>Subtotal Earthwork</u>	<u>\$1,402,000</u>
 <u>Section 2 - Pavement Structural Section *</u>					
Hot Mix Asphalt	47,603	TONN	\$50.00	\$2,380,155	
Rubberized Hor Mix Asphalt	12,481	TONN	\$60.00	\$748,857	
Aggregate Base	25,295	CY	\$40.00	\$1,011,816	
Aggregate Subbase	31,427	CY	\$15.00	\$471,408	
Concrete Curb & Gutter	835	CY	\$400.00	\$334,156	
Sidewalk	581	CY	\$300.00	\$174,186	
				<u>Subtotal Pavement Structural Section</u>	<u>\$5,121,000</u>
 <u>Section 3 - Drainage</u>					
<u>Large Drainage Facilities</u>					
Storm Drains	Lump Sum	LS	\$2,800,000.00	\$2,800,000	
Construction BMP's	Lump Sum	LS	\$500,000.00	\$500,000	
Construction Site Management	Lump Sum	LS	\$600,000.00	\$600,000	
Treatment BMP's	Lump Sum	LS	\$800,000.00	\$800,000	
Drainage Perforated Pipe System:	Lump Sum	LS	\$1,500,000.00	\$1,500,000	
				<u>Subtotal Drainage</u>	<u>\$6,200,000</u>

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE

10-STA-99

PM: 21.9/23.1

Project ID: _____

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
<u>Section 4 - Specialty Items</u>					
Retaining Walls	7,373	SQFT	\$110.00	\$811,063	
Barriers and Guardrails	1,612	LF	\$80.00	\$128,940	
Replacement Planting	Lump Sum	LS	\$1,000,000.00	\$1,000,000	
Public Information	Lump Sum	LS	\$125,000.00	\$125,000	
Erosion Control	Lump Sum	LS	\$900,000.00	\$900,000	
Slope Protection					
Hazardous Waste Mitigation Work	Lump Sum	LS	\$200,000.00	\$200,000	
Resident Engineer Office Space	Lump Sum	LS	\$178,000.00	\$178,000	
				<u>Subtotal Specialty Items</u>	<u>\$3,343,000</u>
<u>Section 5 - Traffic Items</u>					
Lighting and Sign Illumination	Lump Sum	LS	\$200,000.00	\$200,000	
Traffic Delineation Items	80,500	LF	\$3.00	\$241,500	
Modify Traffic Signal	4	EA	\$200,000.00	\$800,000	
Overhead Sign Structures	6	EA	\$100,000.00	\$600,000	
Roadside Signs	Lump Sum	LS	\$50,000.00	\$50,000	
Traffic Control Systems	Lump Sum	LS	\$250,000.00	\$250,000	
Transportation Mgmt Plan	Lump Sum	LS	\$250,000.00	\$250,000	
Ramp Metering Systems	2	EA	\$125,000.00	\$250,000	
ITS Elements	Lump Sum	LS	\$200,000.00	\$200,000	
COZEEP Contract	Lump Sum	LS	\$300,000.00	\$450,000	
				<u>Subtotal Traffic Items</u>	<u>\$3,292,000</u>
				TOTAL SECTIONS 1 - 5:	<u>\$19,358,000</u>

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE
10-STA-99
 PM: 21.9/23.1
 Project ID: 10 0000 0100

			<u>Item Cost</u>	<u>Section Cost</u>
<u>Section 6 - Minor Items</u>				
Subtotal Sections 1 - 5	<u>\$19,358,000</u>	X (5%)	<u>\$967,900</u>	
			TOTAL MINOR ITEMS:	<u>\$967,900</u>
<u>Section 7 - Roadway Mobilization</u>				
Subtotal Sections 1 - 5	<u>\$19,358,000</u>			
Minor Items	<u>\$967,900</u>			
Sum	<u>\$20,325,900</u>	X (5%)	<u>\$1,016,295</u>	
			TOTAL ROADWAY MOBILIZATION	<u>\$1,016,300</u>
<u>Section 8 - Roadway Additions</u>				
Supplemental				
Subtotal Sections 1 - 5	<u>\$19,358,000</u>			
Minor Items	<u>\$967,900</u>			
Sum	<u>\$20,325,900</u>	X (5%)	<u>\$1,016,295</u>	
Contingencies				
Subtotal Sections 1 - 5	<u>\$19,358,000</u>			
Minor Items	<u>\$967,900</u>			
Sum	<u>\$20,325,900</u>	X	<u>15% * \$3,048,885</u>	
			TOTAL ROADWAY ADDITIONS	<u>\$4,065,180</u>
			TOTAL ROADWAY ITEMS	<u>\$25,407,000</u>
			(Subtotal of Sections 1 - 8)	
Estimate Prepared By:	<u>Tinh Truong</u>	<u>(408) 280-2772</u>	<u>14-Mar-11</u>	
	(Print Name)	(Phone)	(Date)	
Estimate Checked By:	<u>BO GAO</u>	<u>(408) 280-2772</u>	<u>14-Mar-11</u>	
	(Print Name)	(Phone)	(Date)	

* Use 25% at the PSR stage or a higher or lower rate if justified.

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE
10-STA-99
 PM: 21.9/23.1
 Project ID: 10 0000 0100

II. STRUCTURES ITEMS

Bridge Name	<u>Pump</u>	<u>Route 219/99 Separation</u>	<u>Soundwall</u>	<u>Sump</u>
Structure Type	<u>Pump House</u>	<u>CIP/PS Box Girder</u>		<u>Box</u>
Width (ft) - out to out	<u>Var</u>	<u>138.0</u>		<u>Var</u>
Span Lengths (ft)	<u>Var</u>	<u>204.0</u>		<u>Var</u>
Total Area (SQ ft)	<u>Var</u>	<u>28,152.0</u>	<u>50,160</u>	<u>Var</u>
Footing Type(pile/spread)	<u>Spread</u>	<u>Pile</u>	<u>Pile</u>	<u>Spread</u>
Cost per Sq. ft.	<u>N/A</u>	<u>\$229</u>	<u>\$50.00</u>	<u>N/A</u>

Including:
 Mobilization: 10%
 Contingency: 25%

Bridge Removal/Modification		<u>\$441,000</u>		
Total Cost For Structure	<u>\$3,500,000</u>	<u>\$6,890,905</u>	<u>\$2,508,000</u>	<u>\$2,500,000</u>

SUBTOTAL STRUCTURES ITEMS \$15,399,000
 (Sum of Total cost for Structures)

Railroad Related Costs _____

SUBTOTAL RAILROAD ITEMS \$0

TOTAL STRUCTURES ITEMS: \$15,399,000
 (Sum of Structures Items plus Railroad items)

COMMENTS:

Estimate Prepared By: <u>Tinh Truong</u> (Print Name)	<u>408-280-2772</u> (Phone)	<u>14-Mar-11</u> (Date)
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PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE
10-STA-99
PM: 21.9/23.1
Project ID: 10 0000 0100

III. RIGHT OF WAY

	<u>2010 Value</u>
A. Acquisition, including excess lands, damages to remainder(s) and Goodwill	<u>\$3,010,000</u>
B. Utility Relocation (State Share)	<u>\$1,819,000</u>
C. Relocation Assistance	<u>\$240,000</u>
D. Clearance / Demolition	<u>\$175,000</u>
E. Title and Escrow Fees	<u>\$30,000</u>
	<u>TOTAL RIGHT OF WAY ITEMS</u>
	<u>\$5,274,000</u>
	(Escalated Value)
	<u>Anticipated Date of Right of Way Certification</u>
	<u>6/1/2012</u>
	(Date to which Values are Escalated)

F. Construction Contract Work

Brief Description of Work: property conform modifications

Right of Way Branch Cost Estimate for Work \$30,000

*This dollar amount is to be included in the Roadway and/or Structures Item of Work, as appropriate.
Do not include in the Right of Way Items

COMMENTS:

Estimate prepared by: R&M 408-280-2772 14-Mar-11
(Print Name) (Phone) (Date)

I. Final Environmental Document

State Route 99/State Route 219 (Kiernan Avenue) Interchange Reconstruction Project

Stanislaus County, California

10-0L3300

Project No. 10 0000 0100

10-STA-99-PM R21.9/R23.1

10-STA-219-PM 0.0/0.3

SCH No.: 2010112073

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



Prepared by the
State of California Department of Transportation

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

April 2011



General Information About This Document

What's in this document?

This document contains a Mitigated Negative Declaration and Finding of No Significant Impact, which examine the environmental effects of a proposed project on State Route 99/State Route 219 (Kiernan Avenue) in Stanislaus County, California.

The Initial Study/Environmental Assessment and proposed Mitigated Negative Declaration were circulated for public review from November 29, 2010 to December 29, 2010. Comment letters were received on the draft document. Responses to the circulated document are shown in the Comments and Responses section (Appendix G) of this document, which has been added since the draft. Elsewhere throughout this document, a line in the right margin indicates a change made since the draft document circulation.

What happens after this?

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

Printing this document: To save paper, this document has been set up for two-sided printing (to print the front and back of a page). Blank pages occur where needed throughout the document to maintain proper layout of the chapters and appendices.

<p>For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Department of Transportation, Attn: Gail Miller, District 6, 2015 E. Shields Avenue, Suite 100, Fresno, CA 93726; or contact the Caltrans District 10 Public Affairs Office at (209) 948-7977, or use the California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice) or 711.</p>
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SCH No. 2010112073
EA# 10-0L3300
Project No. 10 0000 0100
10-STA-99-PM R21.9/R23.1
10-STA-219-PM 0.0/0.3

Reconstruct the interchange at State Route 219 (Kiernan Avenue) along State Route 99
(PM R21.9/R23.1) and from 0.8 mile south of State Route 219 (Kiernan Avenue) to
0.4 mile north of State Route 219 (Kiernan Avenue) (PM 0.0/0.3)

**INITIAL STUDY
WITH MITIGATED NEGATIVE DECLARATION/
ENVIRONMENTAL ASSESSMENT WITH
FINDING OF NO SIGNIFICANT IMPACT**

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

THE STATE OF CALIFORNIA
Department of Transportation

Date of Approval

Kirsten Helton, Acting Office Chief
Central Region Environmental North
California Department of Transportation

**California Department of Transportation
Finding of No Significant Impact**

FOR

*State Route 99/State Route 219 (Kiernan Avenue)
Interchange Reconstruction Project*

The California Department of Transportation (Caltrans) has determined that Alternative 1 (compact diamond interchange) will have no significant impact on the human environment. This Finding of No Significant Impact is based on the attached Environmental Assessment, which has been independently evaluated by Caltrans and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. The Environmental Assessment provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. Caltrans takes full responsibility for the accuracy, scope, and content of the Environmental Assessment and incorporated technical reports.

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

Date

Kirsten Helton, Acting Office Chief
Central Region Environmental North
California Department of Transportation

Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to rebuild the existing State Route 99/State Route 219 (Kiernan Avenue) interchange, including the overcrossing, on- and off-ramps, and certain roadway segments within the interchange limits.

Determination

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

The project would have no effect on land use and planning, cultural resources, hydrology, coastal zones, mineral resources, geology and soils, utility services, public services, emergency services, environmental justice, parks and recreational services, wild and scenic rivers, or agricultural resources.

In addition, the project would have no significant effect on the following: aesthetics and visual resources, air quality, biological resources, hazards and hazardous materials, water quality, population and housing, relocations, and transportation and traffic.

The 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 southern property line of the residential properties that border Kiernan Court and would wrap around to the north along the eastern property line of the residential properties that border Sisk Road.
- The effects to the Pleistocene formations consisting of the Riverbank and Modesto formations would be mitigated by implementation of a Paleontological Mitigation Plan that includes monitoring and a Paleontological Monitoring Report.

Kirsten Helton, Acting Office Chief
Central Region Environmental North
California Department of Transportation

Date

Summary

The California Department of Transportation (Caltrans) proposes to rebuild the existing State Route 99/State Route 219 (Kiernan Avenue) interchange in the community of Salida in Stanislaus County. The project would include rebuilding the overcrossing, on- and off-ramps, and certain roadway segments within the interchange limits. On- and off-ramps would be widened to accommodate greater traffic volumes entering and exiting the mainline. The four-lane overcrossing would be widened to accommodate future traffic making turns or passing through the interchange. The proposed improvements would add four additional travel lanes (eight lanes total) to State Route 219 (Kiernan Avenue) between Salida Boulevard and Sisk Road, including the elevated overcrossing. Work would also change the existing diamond interchange ramps to and from State Route 99.

Three alternatives have been considered: two build alternatives (Alternatives 1 and 2) and a no-build alternative.

Build Alternatives

The proposed build alternatives would widen the State Route 99/State Route 219 (Kiernan Avenue) interchange to eight lanes by adding two lanes in each direction (eastbound and westbound) from Salida Boulevard to Sisk Road. In addition, the existing diamond interchange would become a compact diamond (Alternative 1) or a hybrid diamond/loop (Alternative 2), altering the on- and off-ramps in both directions. Alternative 1 has been selected as the preferred alternative.

The existing Kiernan Avenue overcrossing of State Route 99 would be replaced and elevated to achieve standard vertical clearance over State Route 99. For both build alternatives, an auxiliary lane would be added to both the northbound and southbound lanes of State Route 99 from Kiernan Avenue to Pelandale Avenue. The State Route 99/State Route 219 (Kiernan Avenue) interchange would conform to the existing four-lane roadways at Salida Boulevard and Sisk Road.

Changes to turn-lane approaches would be made at Salida Boulevard and Sisk Road where they intersect Kiernan Avenue. In addition, pedestrian/bicycle facilities, drainage improvements/basins, and landscaping would be included in both build alternatives.

No-Build Alternative

The no-build alternative would retain the existing Kiernan Avenue interchange in its current configuration. The existing interchange can accommodate current traffic flow, but with increased growth in the area, the interchange vehicle capacity would begin to decline as traffic in the future increases.

If the no-build alternative were selected, a number of environmental conditions would decline when compared with the build alternatives. Traffic levels-of-service would degrade to unacceptable levels, resulting in severe congestion and gridlock. Along with congested conditions, air quality could potentially exceed the federal and state standards for various emissions.

Table S.1 Summary of Major Potential Impacts from all Alternatives

Potential Impact		Alternative 1	Alternative 2	No-Build Alternative
Relocation	Business displacements	3 industrial businesses and 1 office building	4 industrial businesses and 1 commercial business	None
	Housing displacements	2 single-family homes	3 single-family homes	None
	Utility service relocation	Impacts from relocations	Impacts from relocations	None
Traffic and Transportation/ Pedestrian and Bicycle Facilities		None	None	Levels-of-service will continue to degrade
Water Quality and Storm Water Runoff		Short-term water-quality impacts from construction	Short-term water-quality impacts from construction	None
Paleontology		Potential for encountering paleontological resources	Potential for encountering paleontological resources	None
Air Quality		Short-term construction-related impacts	Short-term construction-related impacts	Long-term air quality will degrade with continued congestion
Noise and Vibration		Increase in ambient noise levels	Increase in ambient noise levels	None
Construction		Short-term construction impacts	Short-term construction impacts	None

Alternative 1 (the preferred alternative) would require permits, reviews and approvals required for project construction. These include an Encroachment Permit from Caltrans and Stanislaus County and a Water Discharge Permit and Section 401 Water Quality Certification from the Central Valley Regional Water Quality Control Board.

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Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans), in cooperation with the Stanislaus County Department of Public Works, proposes to rebuild the State Route 99/State Route 219 (Kiernan Avenue) interchange between Salida Boulevard and Sisk Road in northern Stanislaus County (see Figure 1-1 and Figure 1-2).

The proposed improvements would rebuild the State Route 99/State Route 219 (Kiernan Avenue) interchange, add four additional travel lanes to State Route 219 (Kiernan Avenue) within the project limits, and change the existing interchange on- and off-ramps to and from State Route 99. An auxiliary lane would be added in both directions on State Route 99 between State Route 219 (Kiernan Avenue) and Pelandale Avenue. This project is included in the 2010 Federal Statewide Transportation Improvement Program and is included in the Stanislaus Council of Government's 2011 Regional Transportation Plan (approved July 2010). Funding is proposed from a variety of sources that include the Regional Surface Transportation Program and local public facility fees generated by ongoing development.

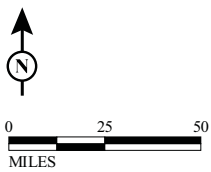
The proposed project involves an existing interchange on State Route 219 (Kiernan Avenue) at State Route 99 (mainline freeway). The State Route 99/State Route 219 (Kiernan Avenue) interchange within the project limits is currently a four-lane highway (two lanes in each direction) from Salida Boulevard to Sisk Road. State Route 99 is a six-lane freeway (three lanes in each direction) throughout the project limits. State Route 99 is part of the California freeway and expressway system stretching almost the entire length of the Central Valley.

1.2 Purpose and Need

1.2.1 Purpose

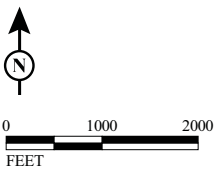
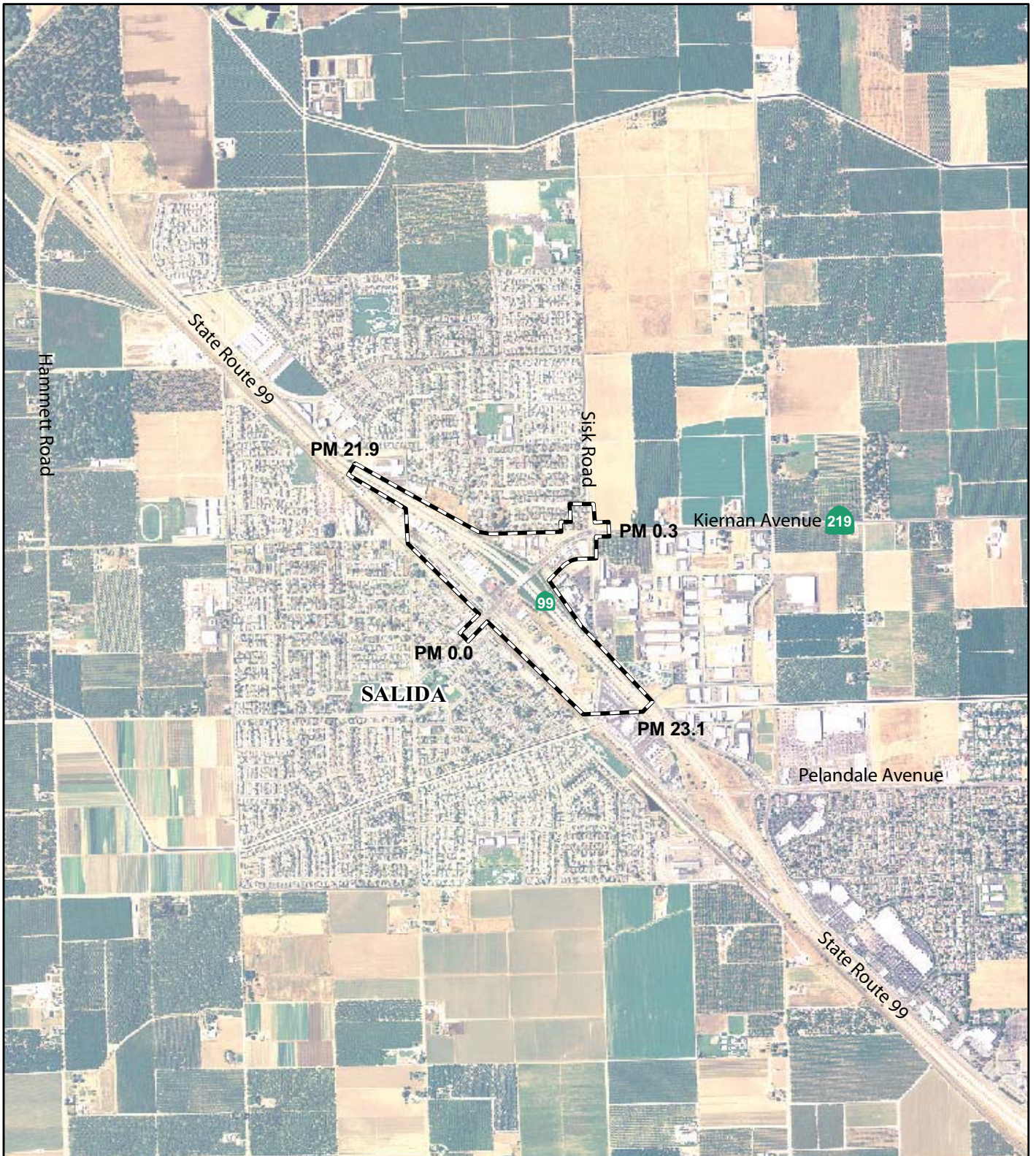
The purpose of the project is to:

- Reduce delay and to avoid traffic backup in the State Route 99/State Route 219 (Kiernan Avenue) interchange area.
- Improve traffic operations and reduce traffic congestion at the State Route 99/State Route 219 (Kiernan Avenue) interchange.



SOURCE: U.S. Census Bureau Tiger 2K (2002)

Figure 1-1
Project Vicinity Map
EA # 10-0L330
10-STA-99-PM R21.9/R23.1
10-STA-219-PM 0.0/0.3




LEGEND
 Project Location

Figure 1-2
Project Location Map
EA # 10-0L330
10-STA-99-PM R21.9/R23.1
10-STA-219-PM 0.0/0.3

1.2.2 Need

The project is needed for the following reasons:


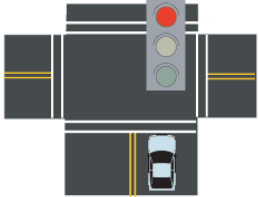

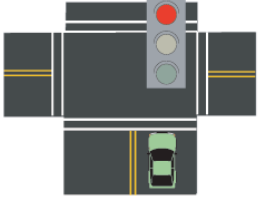

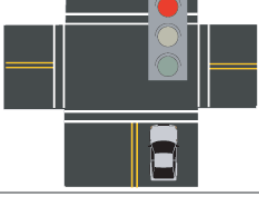

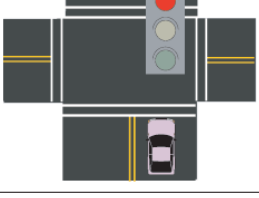

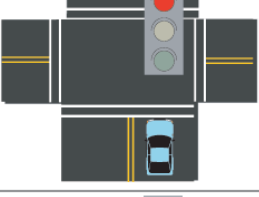

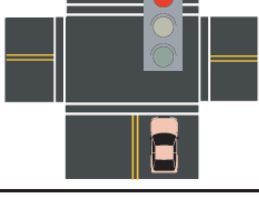
Existing and Projected Traffic Congestion and Level-of-Service

The traffic analysis prepared for the project identified that the State Route 219 (Kiernan Avenue) at Sisk Road intersection, northeast of the project interchange, currently operates at level-of-service E during the afternoon peak hour (see Figure 1-3 for an explanation of level-of-service). Additionally, the northbound State Route 99 off-ramp to State Route 219 (Kiernan Avenue) operates at level-of-service E. The project is needed to improve the existing level-of-service at these two intersections to acceptable levels.

The delays in the peak-travel directions under existing conditions stem from regional growth in the county on State Route 99. This regional growth is reflected in anticipated land-use patterns projected in the Stanislaus County General Plan and Stanislaus Council of Government's Regional Transportation Plan. Additionally, current land uses have led to periods of high traffic volumes and deterioration of peak-hour traffic operations, including vehicle backup that extends across multiple intersections. At this time, vehicles back up into nearby intersections at the State Route 99 (southbound ramps)/State Route 219 (Kiernan Avenue) intersection; the State Route 99 (northbound ramps)/State Route 219 (Kiernan Avenue) intersection; and the State Route 219 (Kiernan Ave)/Sisk Road intersection.

Under existing conditions, the following intersections operate at or near level-of-service F or worse during peak traffic hours: Indian Ridge Lane/Kiernan Avenue, Kiernan Court/Kiernan Avenue, and Sisk Road/Kiernan Avenue. By 2015, the traffic analysis shows that, without improvement, all existing intersections within the study area are expected to operate at or near level-of-service F (see Figure 1-4). The project is needed to reduce delay and to avoid traffic backup into nearby intersections.

As a result of the current and projected growth mentioned above, total traffic volumes on the State Route 99/State Route 219 (Kiernan Avenue) interchange off-ramps are projected to increase by about 1,500 vehicles in both the morning and afternoon peak hours by 2035. Vehicles lining up on the ramps would back up onto State Route 99 in both directions. Traffic operations would continue to decline into 2035 if no changes occur to the intersections (see Figure 1-5). The project is needed to create additional traffic capacity that works with growth forecasts and traffic projections.

Level of Service	Delay per Vehicle (seconds)
	 ≤ 10
	 11-20
	 21-35
	 36-55
	 56-80
	 >80

Factors Affecting LOS of Signalized Intersections

Traffic Signal Conditions:

- Signal Coordination
- Cycle Length
- Protected left turn
- Timing
- Pre-timed or traffic activated signal
- Etc.

Geometric Conditions:

- Left- and right-turn lanes
- Number of lanes
- Etc.

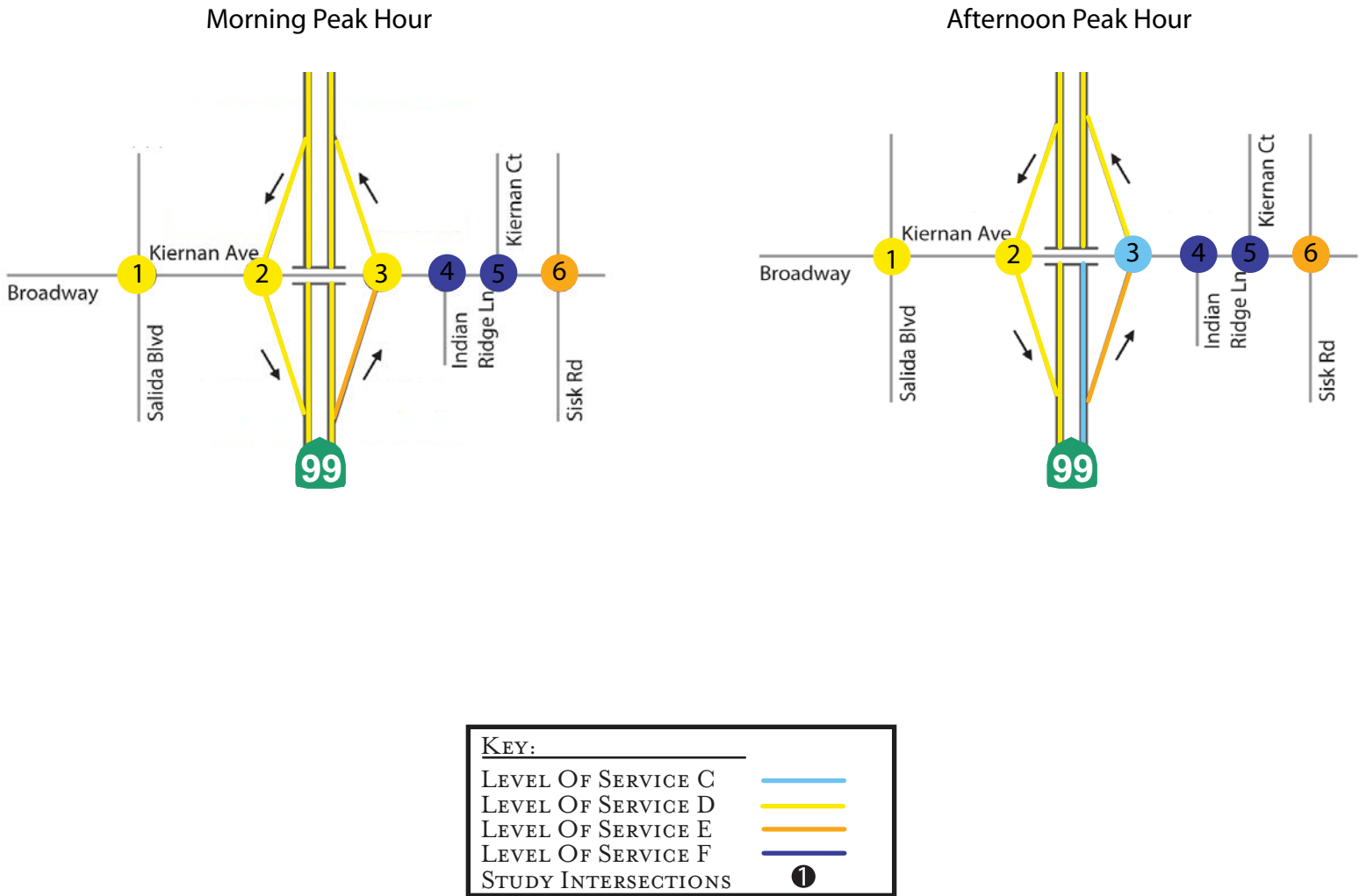
Traffic Conditions:

- Percent of truck traffic
- Number of pedestrians
- Etc.

SOURCE: California Department of Transportation

Figure 1-3
Levels of Service For Signalized Intersections

EA # 10-0L330
10-STA-99-PM R21.9/R23.1
10-STA-219-PM 0.0/0.3



SOURCE: SR 99/Kiernan Ave Interchange
Traffic Operations Report
(2009)

Figure 1-4
Levels of Service Existing Conditions
EA # 10-0L330
10-STA-99-PM R21.9/R23.1
10-STA-219-PM 0.0/0.3

Improve Traffic Operations

As discussed in the previous section, the project is needed to improve the existing level-of-service to acceptable levels and to reduce delay and avoid traffic backing up into nearby intersections.

Additionally, the level-of-service within the weaving (merging) section on State Route 99 between Pelandale Avenue and State Route 219 (Kiernan Avenue) is less than level-of-service D for both directions due to the existing lack of adequate spacing between these interchanges (see below, Existing Nonstandard Features within the Project Limits). The level-of-service within this weaving section contributes to adverse levels-of-service at the interchanges. The auxiliary lanes between the interchanges would improve traffic weaving (merging) onto State Route 99.

Current Deficiencies

Traffic congestion at the State Route 99/State Route 219 (Kiernan Avenue) interchange is a result of the short intersection spacing on State Route 219 (Kiernan Avenue). Another factor is that the roadway does not have enough room to hold the high number of vehicles turning onto and exiting from State Route 99 during peak traffic hours. The traffic congestion that currently occurs during peak hours would continue to rise with the area's expected growth increase.

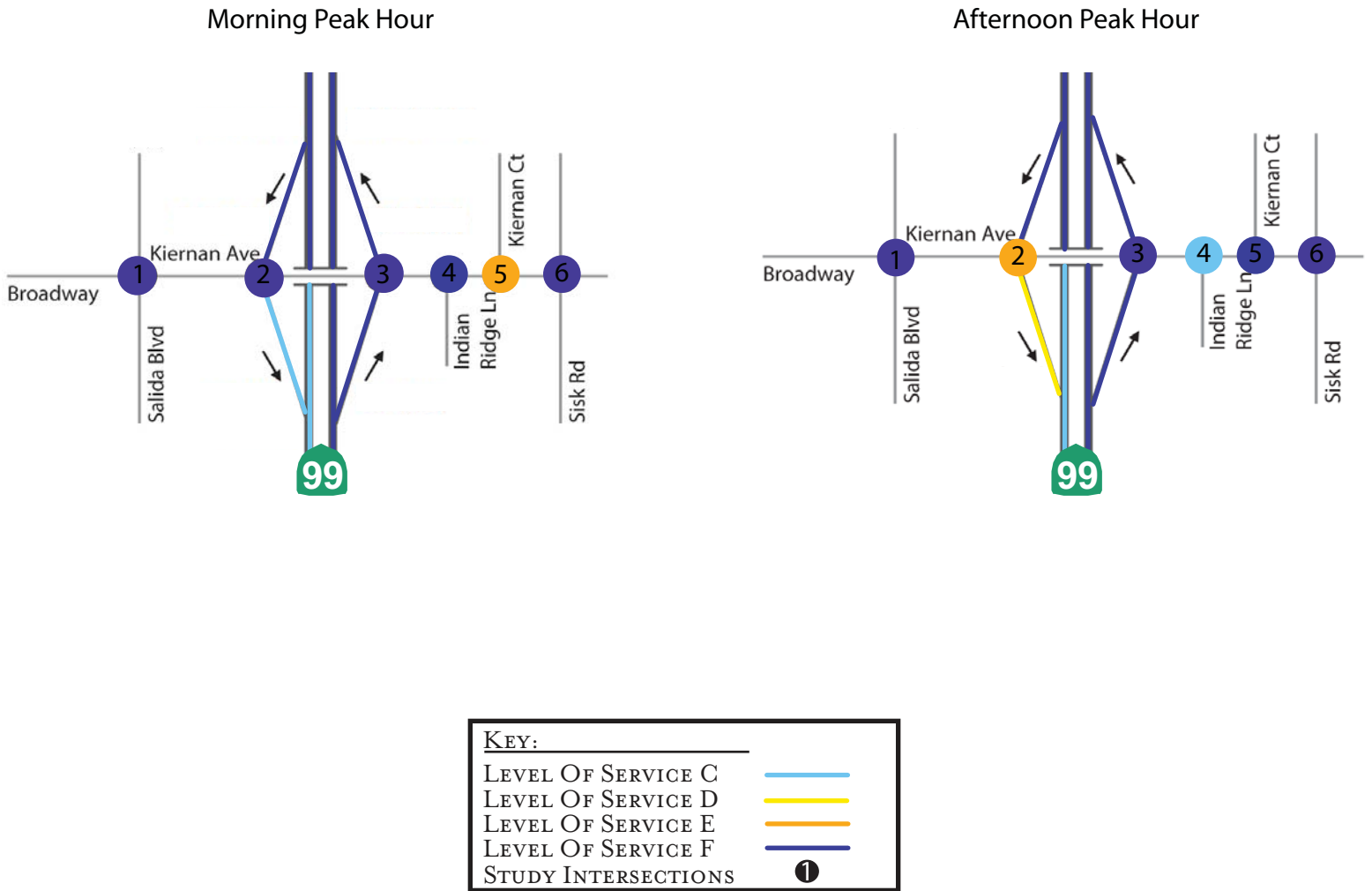
Existing Nonstandard Features within the Project Limits

State Route 99

- Nonstandard interchange spacing between Pelandale Avenue intersection and State Route 219 (Kiernan Avenue) intersection
- Nonstandard vertical clearance at the State Route 219 (Kiernan Avenue) bridge

Local Intersections

- Nonstandard number of curb ramps at ramp intersections
- Nonstandard intersection-to-ramp spacing at State Route 219 (Kiernan Avenue) and Salida Boulevard



SOURCE: SR 99/Kiernan Ave Interchange
Traffic Operations Report
(2009)

Figure 1-5
Levels of Service - No Build Alternative Year 2035
EA # 10-0L330
10-STA-99-PM R21.9/R23.1
10-STA-219-PM 0.0/0.3

1.3 Alternatives

This section describes the proposed action and the Build Alternatives that have been developed by Caltrans to address the project’s purpose and need, while avoiding or minimizing environmental impacts. Major features used for comparison included project cost, level-of-service and other traffic data, and specific environmental impacts.

A number of build alternatives were considered. Two build alternatives and a no-build alternative have gone forward for evaluation in this document. The estimated cost for Alternative 1 is \$39.8 million. The estimated cost for Alternative 2 is \$62.1 million. Section 1.3.1 describes the alternatives under consideration. Section 1.3.2 describes the no-build alternative. Section 1.3.3 provides a comparison of the build alternatives. Section 1.3.4 explains why other alternatives were dropped from further consideration.

1.3.1 Build Alternatives

Common Design Features of the Build Alternatives

Both alternatives would widen State Route 219 (Kiernan Avenue) from four lanes to eight lanes by adding two lanes in each direction (eastbound and westbound) from Salida Boulevard to Sisk Road.

Kiernan Interchange

The following improvements are common to the State Route 99/State Route 219 (Kiernan Avenue) interchange improvements:

Overcrossing Structure (Bridge)—The existing State Route 219 (Kiernan Avenue) structure that crosses over State Route 99 would be widened and lengthened to accommodate the improvements at the interchange as a result of additional through and turn lanes. Improvements would include the addition of new columns in the State Route 99 median to support the widened State Route 219 (Kiernan Avenue) overcrossing structure.

Local Streets—Changes would be required for various local streets to fit interchange improvements. Specifically, Salida Boulevard north and south of State Route 219 (Kiernan Avenue) and Sisk Road north and south of State Route 219 (Kiernan

Avenue) would be changed for additional through lanes and turn lanes. Indian Ridge Lane and Kiernan Court would also be temporarily affected during construction.

Auxiliary Lane—An auxiliary lane would be added in both directions on State Route 99 between State Route 219 (Kiernan Avenue) and Pelandale Avenue.

Pedestrian and Bicycle Facilities—Where required, all existing pedestrian and bicycle facilities would be integrated into the project features to maintain non-motorized service. Within the project limits, sidewalks on both sides of State Route 219 (Kiernan Avenue) would be provided for pedestrians to cross State Route 99 at the State Route 99/State Route 219 (Kiernan Avenue) interchange.

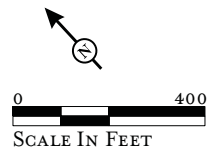
Drainage—Due to the increase in paved surfaces, drainage improvements are required to capture and treat increased stormwater runoff. Drainage improvements would include surface and subsurface drains, retention basins, and relocation of the existing State Route 99 pump station. Each new drainage-facility location would include improvements to remove roadway contaminants before the runoff is discharged into nearby streams. Runoff water ultimately drains into the Stanislaus River.

Landscaping—Landscaping would take place after the interchange improvements are completed: ice plant replaced; trees and shrubs added; irrigation system replaced. Temporary and permanent erosion control would be provided.

Unique Features of the Build Alternatives

Both Kiernan Avenue build alternatives would add two new lanes in each direction to the bridge overcrossing. The differences, however, between the build alternatives focus on the ramps and intersections.

For Alternative 1, the on- and off-ramps would be widened in both directions for additional turn lanes (see Figure 1-6). An auxiliary lane would be added in both directions on State Route 99 between State Route 219 (Kiernan Avenue) and Pelandale Avenue. State Route 219 (Kiernan Avenue) would be widened to conform to the existing roadways at Salida Boulevard and at Sisk Road. These intersections and approaches on Salida Boulevard and Sisk Road would be modified to accommodate these improvements. The west leg of State Route 219 (Kiernan Avenue) at Salida Boulevard would be widened and painted with traffic stripes for the additional left-turn lanes.



SOURCE: BASEMAP - DIGITALGLOBE AERIAL (8/2008)

-  Proposed Roadway
-  Proposed Right of Way
-  Proposed Drainages & Basins

Figure 1-6
Alternative 1 Layout
EA # 10-0L330
10-STA-99-PM R21.9/R23.1
10-STA-219-PM 0.0/0.3

Intersection spacing remains similar to current conditions. Right-of-way impacts would affect three industrial businesses and one office building. The nonstandard intersection spacing would remain, which would require the processing of a mandatory design exception, which has been approved. One sound barrier (soundwall) is included for this alternative and would be placed along the southern property lines of the residential properties that border Kiernan Court.

For Alternative 2, the existing diamond interchange would be changed to a hybrid-design diamond/loop interchange (see Figure 1-7). The southbound loop on-ramp would cross over the southbound off-ramp (typically called a “braided ramp”). The braided ramp would eliminate the non-standard distance between intersections, improve traffic flow, and reduce the time vehicles wait to pass through the intersections.

State Route 219 (Kiernan Avenue) at Salida Boulevard and Sisk Road would be widened and conformed to the existing roadways. These intersections and approaches on Salida Boulevard and Sisk Road would be changed to fit these improvements. The west leg of Broadway Avenue at Salida Boulevard would be changed to accept additional left-turn lanes. Right-of-way impacts would affect four industrial businesses and one commercial business.

***Transportation System Management and Mass Transit Alternatives,
Transportation Demand Management Alternative***

The following Transportation System Management measures would be incorporated into the build alternatives:

Traffic Operations Systems Elements

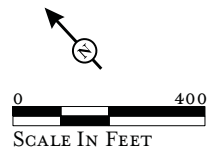
The project improvements at the State Route 99/State Route 219 (Kiernan Avenue) interchange would include changeable message signs/roadway information systems for congestion monitoring, as well as integration of the ramp-metering equipment.



Figure 1-7

Alternative 2 Layout
EA # 10-0L330
10-STA-99-PM R21.9/R23.1
10-STA-219-PM 0.0/0.3

-  **Proposed Roadway**
-  **Proposed Right of Way**
-  **Proposed Drainages & Basins**



Improved Pedestrian and Bikeway Facilities

Planned pedestrian facilities include widened walkways consisting of two 10-foot-wide sidewalks on the State Route 219 (Kiernan Avenue) overcrossing. No new bike lanes or paths are proposed; however, widened shoulders on the State Route 219 (Kiernan Avenue) overcrossing would improve bicycle use.

1.3.2 No-Build Alternative

The no-build alternative for the State Route 99/State Route 219 (Kiernan Avenue) interchange would not change the existing bridge (overcrossing structure) or ramps. The no-build alternative includes all previous improvements to the interchange including minor striping and signal modifications currently under construction. The no-build alternative for the interchange does not meet the purpose and need as identified in Section 1.2. None of the interchange improvements would occur, and vehicular mobility would be constrained. As a result of congestion, local motorists would be delayed and confined to the project vicinity, with increasing difficulty accessing the region through State Route 99. Finally, unacceptable traffic levels-of-service and congestion with the no-build alternative would minimize the opportunities to provide a balanced transportation network for the region.

1.3.3 Comparison of Alternatives

Criteria considered by Caltrans to evaluate the alternatives included project purpose and need objectives, project costs, potential environmental effects, and input from public services, public agencies, property owners, and the general public.

Each of the build alternatives is viable and meets the project purpose and need; however, the build alternatives vary in how well they improve traffic operations throughout the entire project area.

Both Alternative 1 and Alternative 2 would provide increased traffic capacity on local roadways compared to the no-build alternative and would improve levels-of-service on the State Route 99 off-ramp to State Route 219 (Kiernan Avenue) and portions of State Route 99 between Hammett Road and State Route 219 (Kiernan Avenue). The build alternatives, however, would largely have little effect on the State Route 99 mainline and ramp operations due to downstream bottlenecks on the mainline, which is level-of-service F.

Systemwide vehicle delay provides information for comparing the two build alternatives from a traffic operations standpoint. The lower the vehicle-delay hours, the more effectively the interchange and surrounding roadway systems operate.

- Alternative 1—Vehicle delay reduced to 929 hours during the morning peak period and 1,738 hours during the afternoon peak period.
- Alternative 2—Vehicle delay reduced to 145 hours during the morning peak period and 125 hours during the afternoon peak period.
- No-build alternative—Vehicle delay is 1,189 hours during the morning peak period and 2,376 during the afternoon peak period.

Except for slight differences in relocation impacts, all environmental impacts are the same for the build alternatives. Alternative 1 would not provide the standard distance between intersections and would require a mandatory design exception. Neither alternative would have impacts that cannot be mitigated through avoidance, minimization, and/or mitigation measures.

See Table 1.1 for a comparison of the alternatives and their environmental impacts.

Table 1.1 Summary of Major Potential Impacts from all Alternatives

Impact		Alternative 1	Alternative 2	No-Build Alternative
Relocation	Business displacements	3 industrial businesses and 1 office building	4 industrial businesses and 1 commercial business	None
	Housing displacements	2 single-family homes	3 single-family homes	None
	Utility-service relocation	Impacts from relocations	Impacts from relocations	None
Traffic and Transportation/ Pedestrian and Bicycle Facilities		None	None	Levels of Service will continue to degrade
Water Quality and Storm Water Runoff		Short-term water-quality impacts from construction	Short-term water-quality impacts from construction	None
Paleontology		Potential for encountering paleontological resources	Potential for encountering paleontological resources	None
Air Quality		Short-term construction- related impacts	Short-term construction- related impacts	Long-term air quality will degrade with continued congestion
Noise and Vibration		Increase in ambient noise levels	Increase in ambient noise levels	None
Construction		Short-term construction impacts	Short-term construction impacts	None

1.3.4 Identification of a Preferred Alternative

The project development team has evaluated the alternatives for environmental impacts, considered the community input and public comments, and performed a cost analysis for each alternative.

Alternative 1 (compact diamond interchange) has been selected as the preferred alternative for the State Route 99/State Route 219 (Kiernan Avenue) Interchange Reconstruction Project. Several factors were taken into consideration during the selection of the preferred alternative, including cost, year 2035 build-out, and design.

The estimated cost for Alternative 1 is \$39.8 million, while the estimated cost of Alternative 2 is \$62.1 million. Therefore, Alternative 1 would cost \$22.3 million (estimated) less than Alternative 2.

Public comments were mixed on Alternative 1. Due to the economic climate of the region, some of the public comments supported Alternative 1 because it was less expensive than Alternative 2. Alternative 1 was also supported because it required fewer right-of-way takes.

The compact diamond interchange design (Alternative 1) would have a smaller footprint and therefore would create fewer impacts to current right-of-way, compared to the larger hybrid-design diamond/loop interchange (Alternative 2). This smaller compact diamond design is also widely used in the area and is familiar to local commuters. The Alternative 2 hybrid-design diamond/loop interchange is not as commonly used compared to the compact diamond design.

1.3.5 Alternatives Considered but Eliminated from Further Discussion

The project development team studied a number of viable alternatives for the State Route 99/State Route 219 (Kiernan Avenue) interchange during the project initiation phase. Due to poor operational performance, considerable right-of-way impacts, and cost, Alternatives 3 through 7 were dropped from further analysis.

Alternative 3—Modified Compact Diamond with Southbound Loop On-ramp

The southbound exit-ramp intersection would cause severe congestion on Salida Boulevard. As a result, due to the numerous southbound vehicles turning left onto Broadway Avenue, the future level-of-service at the Broadway Avenue and Salida Boulevard intersection would be level-of-service F during morning peak-hour traffic. Alternative 3, therefore, would not meet the purpose and need of the project.

Alternative 4—Modified Compact Diamond with Southbound Loop Off-Ramp

The major problem for this alternative was the westbound traffic entering the southbound on-ramp from State Route 219 (Kiernan Avenue). Westbound vehicles not turning onto the southbound on-ramp need to travel through the Broadway Avenue and Salida Boulevard intersection, creating long delays at the Broadway Avenue and Salida Boulevard intersection and the Salida Boulevard and southbound on-ramp intersections. Because this alternative presented no advantages over other build alternatives and added right-of-way costs, Alternative 4 was determined not feasible.

Alternative 5—Hybrid Loop-Ramp Interchange

This alternative would have free-flow characteristics for all traffic movements but a higher cost than a diamond interchange, plus capacity limits due to a relatively short

100-foot-weaving (merging) section between the two loop ramps. The volume of merging traffic would be greater than 2,000 vehicles per hour and would result in level-of-service F operations in the 2035 afternoon peak hours, affecting both the mainline freeway and loop-ramp operations. Additionally, this alternative would require 9.7 acres of right-of-way, which is three times greater than the proposed build alternatives. Because this alternative presented no advantages over the build alternatives and added right-of-way costs, Alternative 5 was determined not feasible.

Alternative 6—Modified Compact Diamond with Southbound Buttonhook Ramps North of Broadway Avenue

This alternative would divert all southbound traffic from State Route 219 (Kiernan Avenue) to Salida Boulevard. As a result, it would deteriorate the level-of-service of the intersections at the southbound ramp and at Salida Boulevard, due to numerous left turns. Because of these deteriorated traffic levels-of-service, it was determined that Alternative 6 would not meet the purpose and need of the project.

Alternative 7—Modified Compact Diamond with Southbound Buttonhook Ramps South of Broadway

This alternative would build southbound buttonhook ramps south of Broadway Avenue. As a result, this alternative would reduce the merging distance between the State Route 99/State Route 219 (Kiernan Avenue) interchange and State Route 99/Pelandale Avenue interchange to 526 feet. Because this alternative presented no advantages over the build alternatives and would introduce a mandatory design exception for the reduced merging distances between the State Route 99/State Route 219 (Kiernan Avenue) interchange and the State Route 99/Pelandale Avenue interchange, Alternative 7 was determined not feasible.

1.4 Permits and Approvals Needed

Table 1.2 shows the permits, reviews, and approvals required for project construction.

Table 1.2 Permits and Approvals

Agency	Permit/Approval	Status
Stanislaus County	Encroachment Permit allows building within the county right-of-way. Contractor obtains permit prior to construction.	Stanislaus County
Central Valley Regional Water Quality Control Board	Water Discharge Permit and Section 401 Water Quality Certification. Review and approval of stormwater discharge treatments. Contractor obtains permit prior to construction.	Central Valley Regional Water Quality Control Board
Caltrans	Encroachment Permit allows building within the state right-of-way. Contractor obtains permit prior to construction.	Caltrans

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

This chapter explains the impacts that the project would have on the human, physical, and biological environments in the project area. It describes the existing environment that could be affected by the project, potential impacts from each of the alternatives, and proposed avoidance, minimization, and/or mitigation measures. Any indirect impacts are included in the general impacts analysis and discussions that follow. Related regulatory information—the laws, regulations, and governmental and regulatory agencies involved for each impact area—is provided at the beginning of each section as needed.

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

- Coastal Zone—The project area is not in a coastal zone. (Field visit on April 21, 2009)
- Cultural Resources—The project is not anticipated to have archaeological or historical built-environment resources. (Archaeological Study Report/Historic Resources Evaluation Report, June 2010)
- Geology/Soils/Seismic/Topography—The project is not located in a seismic-hazard zone, and liquefaction potential is considered low. (Geotechnical Report, October 2009)
- Hydrology and Floodplain—The project is not in a floodplain and is not anticipated to have any impacts to hydrologic resources. (Floodplain Evaluation Report, September 2010)
- Natural Communities—The project is located in an area that is a highly altered environment, and natural communities have been displaced. (Natural Environment Study, July 2010)
- Parks and Recreational Services—No parks or recreational services are present in the project area. (Field visit on April 21, 2009)

- Plant Species—Due to the absence of suitable habitat, no special-status plant species are expected to occur within the biological study area. (Natural Environment Study, July 2010)
- Threatened and Endangered Species—No threatened or endangered species are expected to occur within the biological study area. (Natural Environment Study, July 2010)
- Wetlands and Other Waters—No potential jurisdictional waters are present in the biological study area. (Natural Environment Study, July 2010)
- Wild and Scenic Rivers—No wild or scenic rivers are within or adjacent to the project area. (Field visit on April 21, 2009)

2.1 Human Environment

This section explains the impacts that the project would have on the human environment in the project area. The section describes the existing environment that could be affected by the project and the potential impacts from each alternative.

2.1.1 Land Use

This section describes existing and proposed land uses on the project site and vicinity.

2.1.1.1 Existing and Future Land Use

Stanislaus County adopted an updated General Plan in 2006 that provides a land use blueprint for long-term growth to at least 2035. The Stanislaus County General Plan provides a plan for the northern Salida area that allows substantial amounts of new residential, commercial, and office development. The Salida Community Plan, adopted August 7, 2007, is a blueprint for land use in the Salida area. Specifically, the Salida Community Plan, which is consistent with the planning uses in the Stanislaus County General Plan, foresees substantial residential and commercial growth in the northern and northeastern portions of the Salida community (see Figure 2-1).

As the community grows from development projects consistent with the recent Stanislaus County General Plan update, the demand for transportation improvement will increase. Traffic generated by future projects and growth will need to use State Route 219 (Kiernan Avenue) and State Route 99 to access travel destinations in the region.



SALIDA COMMUNITY PLAN

SALIDA, CA

Figure 2-1
Salida Community Plan Plan
 EA # 10-0L330
 10-STA-99-PM R21.9/R23.1
 10-STA-219-PM 0.0/0.3

SOURCE: County of Stanislaus General Plan

The Stanislaus Council of Governments is the regional transportation-planning agency for the county and conducts regional transportation planning for the area. The county, the Stanislaus Council of Governments, and Caltrans are working cooperatively on long-range programs to address the transportation needs of the community and region.

The projected land uses in the study area consist of residential, commercial, industrial, and planned development and uses. Future land use in the Salida community follows a regional trend that surrounds the project area with more residential and commercial development. Table 2.1 shows other proposed transportation projects in the project area.

Table 2.1 Proposed Transportation Projects

Name	Jurisdiction	Proposed Uses	Status
State Route 99/State Route 219 (Kiernan Avenue) Widening	Caltrans	Widen from 2 to 4 lanes	90% Built In construction
Pelandale Avenue/State Route 99 Interchange Widening/Reconstruction	City of Modesto	Widen from 4 to 6 lanes; replace ramps	0% Built Proposed
State Route 99/Hammett Road Interchange Widening/Reconstruction	Stanislaus County	Widen from 4 to 6 lanes; replace ramps	0% Built Proposed
State Route 219 (Kiernan Avenue) from State Route 99 to Stoddard Road	Caltrans	Widen from 4 to 6 lanes	0% Built Proposed
Sisk Road from State Route 219 (Kiernan Avenue) to Pirrone Road	Stanislaus County	Widen from 2 to 4 lanes	0% Built Proposed
Sisk Road from Pelandale Avenue to State Route 219 (Kiernan Avenue)	Stanislaus County	Widen from 2 to 4 lanes	0% Built Proposed
Stoddard Road from State Route 219(Kiernan Avenue) to Ladd Road	Stanislaus County	Widen from 2 to 4 lanes	0% Built Proposed

Another project that is in the environmental phase is the North County Corridor Project that would build about 25 miles of roadway on a new alignment to provide interregional connectivity from State Route 99 to 6 miles east of the State Route 120

and State Route 108 junction. The corridor project would likely be a four- to eight-lane controlled-access highway. Using concepts from the North County Corridor, State Route 99 to State Route 120 Project, one of the alternatives under consideration, would connect to State Route 219 (Kiernan Avenue) or another interchange within the vicinity of the Salida community, as a local road or a state route. If the North County Corridor Project connects as a state route, another design exception would be required for the nonstandard distance between the State Route 99/Hammett Road interchange and the State Route 99/State Route 219 (Kiernan Avenue) interchange.

Environmental Consequences

Land would have to be acquired for each build alternative to accommodate interchange improvements. Alternative 1 would acquire 5.5 acres of right-of-way, and Alternative 2 would acquire 11.7 acres of right-of-way. Existing land uses for these right-of-way allocations include agricultural, commercial, industrial, and residential uses. Farmland areas to be acquired during right-of-way acquisition are currently zoned for agricultural purposes, but the Stanislaus County General Plan and Salida Community Plan have designated these areas as a business park. Right-of-way relocation/compensation practices would be followed, and planned characteristics of the roadway corridor would not be altered.

No substantial impacts to land use would result from construction of the proposed project because the project is consistent with local planning for the area and would not cause land use inconsistencies. The project also would improve roadway conditions that support the current and future land use activities in the project area.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, or mitigation measures are required.

2.1.1.2 Consistency with State, Regional, and Local Plans

Affected Environment

State Route 219 (Kiernan Avenue) crosses State Route 99 to create a grade-separated interchange along State Route 99 in the community of Salida. State Route 99 is a highway that runs north to south through the Central Valley. The proposed project would widen State Route 219 (Kiernan Avenue) and would consist of improvements to the interchange to facilitate this widening. The Stanislaus County General Plan provides local land use and long-term guidance for planning in the study area. The Stanislaus Council of Governments Regional Transportation Plan addresses the near- and long-term transportation needs for the project area and prioritizes funding

requirements. Lastly, because the interchange connects with a state highway, the project would need to meet Caltrans and Federal Highway Administration guidelines.

Regional

Stanislaus Council of Governments Regional Transportation Plan—The Regional Transportation Plan is the coordinated long-range transportation plan for the region’s nine cities and the unincorporated county. The Stanislaus Council of Government’s long-range transportation plans for the region are stated within the Regional Transportation Plan. The Regional Transportation Plan includes an assessment of overall growth and economic trends in the region and provides a strategic direction for transportation capital investments.

Local

Stanislaus County General Plan—The Stanislaus County General Plan outlines the seven mandatory planning elements (land use, circulation, housing, open space, conservation, safety, and noise) outlined in Section 65300 of the California Government Code. This information provides the long-term land-use planning structure for the county.

Salida Community Plan—The Salida Community Plan, part of the Stanislaus County General Plan, is a long-term planning document that focuses on land-use planning for the Salida community.

Environmental Consequences

The proposed project is consistent with all major regional and local plans and programs.

The circulation element of the Stanislaus County General Plan includes the State Route 99/State Route 219 (Kiernan Avenue) interchange as a special study area (County of Stanislaus General Plan, 2-19). The purpose of the proposed interchange reconstruction is to support the long-term circulation-element objectives.

The general plan provides land-use planning and guidance for development of about 4,600 acres of land in the Salida area. The Salida Community Plan provides further guidance for land uses within the Salida community.

To support this planned land use, new roadways within the area must be designed to fit a variety of vehicle types, traffic volumes, speeds, and safety conditions. Improvements are specified in the Salida Community Plan for the State Route

99/State Route 219 (Kiernan Avenue) interchange (County of Stanislaus General Plan, 1-76–1-86). The proposed project is consistent with these plans.

The project is consistent with the 2011 Regional Transportation Plan and has been programmed for 2014 to 2015 construction funding.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, or mitigation measures required.

2.1.2 Growth

Regulatory Setting

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

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

Affected Environment

From 2000 to 2008, Stanislaus County experienced a population growth of 17 percent. During this period, 43 percent of the population growth was attributable to the birth rate and 7 percent was attributable to immigration.

The Central Valley has long been known for relatively affordable housing compared with much of the rest of California (California Association of Realtors 2007). For example, the median home price for Santa Clara County is 2.4 times higher than housing in Stanislaus County.

Since 2006, a significant downturn in residential construction throughout Stanislaus County has resulted in a significant number of layoffs, reduced purchase of materials and supplies, and effects to related services and suppliers of household goods.

One of the clearest indicators of the construction slowdown is building-permit activity. After cresting at 4,489 permits in 2005, the number of permits descended to 1,148 through 2007. Additionally, with a foreclosure rate at 9 percent in 2008, residential foreclosures have reached higher levels than at any time in recent history.

Despite the current economic climate, certain sectors remain strong, including agriculture, the core industry in the county. Also, with a growing skilled labor force (college degrees have increased by 13 percent since 2000), and with lower housing prices resulting in improved affordability, Stanislaus County is poised for significant growth in the future.

Environmental Consequences

Table 2.2 lists the screening factors developed to help determine the likely growth potential of the project and whether further analysis was necessary.

Table 2.2 Screening Factors

Screening Factor	Discussion
Accessibility	<p>The proposed project would provide new connections to already existing roadways only and would not increase or provide new access to other parts of the project area such as non-roadway uses/lands, extend utility infrastructure, or increase utility capacity. New roadways would be introduced to the project area, but would serve solely as access points to existing roadways. In the proposed project, effects related to accessibility would be minimal.</p>
Project type, location, and growth pressure	<p>The project area is an urban area surrounded by rural land uses. Transportation projects in urban areas surrounded by rural land uses have a higher potential to cause growth-related impacts as population density and economic activity generate higher demands for conversion of undisturbed lands to developed uses.</p> <p>The proposed project is being built to meet existing demand and projected future growth based on the Stanislaus County General Plan, Salida Community Plan, and Stanislaus Council of Governments 2011 Regional Transportation Plan. Both the Stanislaus County General Plan and the Stanislaus Council of Governments 2011 Regional Transportation Plan have not forecasted any potential growth as a result of the proposed project.</p> <p>The proposed project is responding to growth forecasts developed for these plans to ensure that circulation along State Route 99 and the roadways and segments adjacent to the proposed project would keep pace with population increases.</p>
Foreseeable growth	<p>The proposed project would not directly affect growth within the Salida community or Stanislaus County. The proposed project would generally improve regional transportation along the State Route 99 corridor and the roadways and segments adjacent to the interchange in a manner consistent with the Stanislaus County General Plan, Salida Community Plan, and Stanislaus Council of Governments 2011 Regional Transportation Plan.</p>
Growth and its impact on resources	<p>Because the growth would not occur without implementation of the planned growth projected in the Stanislaus County General Plan, the Salida Community Plan, and Stanislaus Council of Governments 2011 Regional Transportation Plan, the proposed project would not induce or encourage growth. As such, no growth-inducing impacts are anticipated.</p>

Based on the results of the screening factors above, the proposed project would not induce growth, and therefore no further analysis is required.

Avoidance, Minimization, and/or Mitigation Measures

The proposed project and its relative cumulative projects would not stimulate unplanned residential or related commercial growth. It is not foreseeable that project-related growth would put pressure on or cause impacts to the environmental resources of concern. No avoidance, minimization, and/or mitigation measures are proposed because growth impacts would be minimal.

2.1.3 Farmlands/Timberlands

Regulatory Setting

The National Environmental Policy Act and the Farmland Protection Policy Act (7 United States Code 4201-4209 and regulations 7 Code of Federal Regulations Part 658) require federal agencies, such as the Federal Highway Administration, and Caltrans as assigned, to coordinate with the Natural Resources Conservation Service if activities irreversibly convert farmland (directly or indirectly) to nonagricultural use. For purposes of the Farmland Protection Policy Act, farmland includes prime farmland, unique farmland, and land of statewide or local importance.

The California Environmental Quality Act requires the review of projects that would convert Williamson Act contract land to nonagricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to deter the early conversion of agricultural and open space lands to other uses.

Affected Environment

A Farmland Conversion Assessment was prepared in June 2010. From this assessment, the California Department of Conservation designates and maps “important farmlands” in California. The categories that are used for “important farmlands” are described below:

- Prime farmland—Land with the best combination of physical and chemical features used for the production of agricultural crops.
- Farmland of statewide importance—Land with a good combination of physical and chemical features used for the production of agricultural crops
- Unique farmland—Land of lesser-quality soils used for the production of the state’s leading agricultural crops.

- Grazing land—Land on which the existing vegetation is suited for livestock grazing.
- Urban and built-up land—Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel.
- Other land—Land that does not meet the criteria of any other category.

The existing land uses in the vicinity of the proposed project reflect both urban development and rural agriculture. According to the significant-farmlands map, the land for the project area is designated prime farmland. No timberland is near the proposed project.

Environmental Consequences

Project implementation (i.e., new interchange signals and rebuilding) would result in the conversion of about 4.5 acres (Alternative 1) or 4.4 acres (Alternative 2) of prime farmland (see Table 2.3). The actual impact to prime farmland would be the soils within the proposed new right-of-way. The farmland areas that would be affected are at the northeast and southeast corners of the State Route 219 (Kiernan Avenue)/Sisk Road intersection. The project would directly convert 4.5 acres under Alternative 1 and 4.4 acres under Alternative 2. The project would not encourage the development of the remainder of the affected parcel. That development is already planned for in the Stanislaus County General Plan and the Salida Community Plan. It is anticipated that development may occur by 2025.

Table 2.3 Farmland Conversion by Alternative

Alternatives	Total Land Converted (acres)	Prime, Statewide, and Unique Farmland (acres)	Percent of Farmland in Stanislaus County	Percent of Farmland in the State	Farmland Conversion Impact Rating
Alternative 1	4.5	4.5	0.00*	0.00*	41
Alternative 2	4.4	4.4	0.00*	0.00*	41

* less than 0.001 %

Source: June 2010 Farmland Conversion Assessment

The loss of “important farmlands” was evaluated based on the United States Department of Agriculture, Natural Resources Conservation Service Farmland Conversion Impact Rating System. Implementation of the proposed project design would affect soils designated for various crop productions, defined by the United

States Department of Agriculture, Natural Resources Conservation Service as having prime agricultural significance.

A Farmland Conversion Impact Rating Form AD-1006 was used to identify potential impacts to farmland for this project. The form requires an evaluation of issues such as the feasibility of farming the land, the relationship of the land to urban development, and the current and future use of farmland in the project area. A project scoring 160 points or more out of a possible 260 must consider alternatives that avoid or minimize farmland impacts. A score less than 160 should “be given a minimal level of consideration for protection and no additional sites be evaluated,” as stated in the Farmland Protection Policy Act of 1981, and is not considered to have an impact on farmland.

If an agency completing the form determines a rating below 60 points for any “site” or alternative for Part VI (see Appendix E, Form AD-1006), the form is not submitted to the Natural Resources Conservation Service for further scoring because the total score would not add up to the 160 points maximum score for Parts IV, V, and VI. For this project, Alternative 1 scored a 41 and Alternative 2 scored 41. Both scores are below 60 and, therefore, have not been submitted to the Natural Resources Conservation Service for further processing.

With the minor loss of agricultural lands (conversion of agricultural lands to urban uses) and a rating below 160 points out of a maximum 260 points from the Justification for Site Assessment, it is concluded that the proposed project would not substantially affect agricultural soils or productivity (see Appendix E for Farmland Conversion Impact Rating).

Avoidance, Minimization, and/or Mitigation Measures

No mitigation is required.

2.1.4 Community Impacts

2.1.4.1 Community Character and Cohesion

Regulatory Setting

The National Environmental Policy Act of 1969 (as amended) established that the federal government use all practicable means to ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 United States Code 4331[b][2]). The Federal Highway Administration in its

implementation of the National Environmental Policy Act (23 United States Code 109[h]) directs that final decisions regarding projects be made in the best overall public interest. This requires taking into account adverse environmental impacts such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

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

Affected Environment

The project site is in the community of Salida in Stanislaus County. State Route 99 passes through the project area and is part of the California freeway and expressway system stretching almost the entire length of the Central Valley. The project area consists primarily of residential and commercial uses adjacent to State Route 99. Table 2.4 includes information regarding Stanislaus County and was obtained from the U.S. Census Bureau 2000.

Table 2.4 Community Characteristics

Characteristic	Community of Salida	Stanislaus County
Total Population	12,560	446,997
Median Household Income	57,874	40,101
Median Home Value	144,500	125,300

Source: United States Census Bureau 2000

Population Characteristics

Ethnicity—The ethnic breakdown of the community of Salida and Stanislaus County displayed in Table 2.5 is from data obtained from the U.S. Census Bureau 2000.

Table 2.5 Ethnicity Breakdown

Study Area	White		Black or African American		American Indian/Alaskan Native		Asian		Native Hawaiian/Other Pacific Islander		Hispanic		Other	
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
Community of Salida	8,628	69	424	3	161	1	595	5	31	<1	1,964	16	757	6
Stanislaus County	309,901	69	11,521	3	5,676	1	18,848	4	1,529	<1	75,187	17	24,335	5

Source: United States Census Bureau 2000

According to Table 2.5, the community of Salida has a white population of 69 percent, the same percentage as the county. The Black or African American population for the community of Salida is 3 percent, the same percentage as the county. There is 5 percent Asian population residing in the community of Salida compared to 4 percent for the county. The Hispanic population is comparable in the community of Salida at 16 percent compared to 17 percent for the county. The 69 percent white and 31 percent minority in community of Salida is also comparable to the county.

Age—The number of residents over 55 years old in Stanislaus County was 79,820 (12 percent) and 1,324 (7 percent) in the community of Salida. The number of residents under 18 years old in Stanislaus County was 139,222 (21 percent) and 4,522 (24 percent) in the community of Salida.

Education—The population of residents in Stanislaus County 25 years old and older was 264,578. Of these, 29.6 percent do not have a high school diploma or similar educational degree. About 26.0 percent have a high school education, 23.6 percent have attended some college, 6.6 percent have an associate’s degree, 9.6 percent have a bachelor’s (college) degree, and 4.4 percent have a graduate or professional degree.

Population and Housing—In 2000, population density in Stanislaus County was 295 persons per square mile. The state population density in 2000 was 220 persons per square mile. In 2008, the Stanislaus County population was 526,047, a gain of about 16 percent from 2000 when the population was 451,029 (California Department of Finance 2009). The county is expected to grow an average of 2.03 percent per year to about 950,000 residents by 2035 (2010 Stanislaus Council of Governments Regional Transportation Plan).

The population of the Salida community is 12,560 and comprises approximately 2.8 percent of Stanislaus County's population of 446,997 people (United States Census 2000). The total number of households in the community of Salida is 3,617, with an average household size of 3.44 people per residence. The total number of households within Stanislaus County is 145,146, with an average household size of 3.03 people per residence (United States Census 2000). The United States Census Bureau defines a household as a group of people, related or otherwise, living together in a dwelling unit.

The community of Salida is in an area with a high concentration of single-family households compared to the county. Historically, single-family homes have a lower household size than multi-family residential units (apartments or condominium complexes).

Neighborhoods/Communities

The proposed project is located between two neighborhood districts. The neighborhood boundaries are based on being east or west of State Route 99, the primary physical feature dividing the community. Both of these neighborhoods are surrounded by agricultural land uses in all directions. Dwellings consist primarily of single-family households of approximately the same median age. Some commercial and light-industrial uses are found primarily along major roadways.

Historically, indicators of strong community cohesion are long average-residency tenures; households of two or more people; large percentages of home ownership; large percentages of single-family homes; large percentages of elderly, and abundant community activities.

The community of Salida is a relatively young community with most of the housing growth having occurred within the last 15 years. The largest group of households consists of single-family homeowners below the age of 55. Overall, despite the residents' relatively young age, factors such as single-family homeownership, household size, and community facilities, the Salida neighborhoods are viewed as cohesive units with strong community orientation.

Housing

The community of Salida has a total of 3,740 housing units while the county has 150,807. In Salida, 123 units are unoccupied, and 5,661 units are unoccupied in the county. The owner-occupied housing units total 3,146 (86 percent), and renter-occupied units total 471 (13 percent). In the county, 89,886 (62 percent) housing units

are owner-occupied and 55,260 (38 percent) are renter-occupied (United States Census, 2000). The majority of Salida homeowners have lived in their homes for less than 15 years (67 percent) compared with 36 percent in Stanislaus County. The ratio is consistent with development patterns in the community of Salida, which has experienced much of its population growth within the past 15 years.

Environmental Consequences

Population Characteristics

The project is intended to accommodate the long-range population planning for the region. The Stanislaus County General Plan, Salida Community Plan, and Stanislaus Council of Governments Regional Transportation Plan include the proposed project as an element needed to accommodate regional population forecasts.

Neighborhoods/Communities

No impacts to neighborhoods/communities are anticipated.

Housing

Land to be acquired to accommodate the proposed project would require full property acquisitions of two single-family homes under Alternative 1 and three single-family homes under Alternative 2. Except for one unit built in the 1960s, the residences were built in the late 1980s.

Despite the acquisitions and relocations, the proposed project is not expected to negatively affect the existing neighborhoods or communities in the project area. Because State Route 99 and State Route 219 (Kiernan Avenue) currently exist, area neighborhoods are well established and would remain unchanged with the project. The current neighborhood units would retain their current cohesiveness and would not be divided or split by project features. Additionally, the project would not separate residences from community facilities, increase urbanization, or decrease public access. Therefore, impacts to the community's cohesion or character are not anticipated.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, or mitigation measures are required. A few business and residential units surrounding the existing Kiernan Avenue interchange would be affected by the project. (The relocation section of this report discusses any potential impacts to these residential units and businesses.)

2.1.4.2 Relocations

Regulatory Setting

Caltrans' Relocation Assistance Program is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended) and Title 49 Code of Federal Regulations, Part 24. The purpose of the Relocation Assistance Program is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. 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 United States Code 2000d, et seq.). See Appendix B for a copy of Caltrans' Title VI Policy Statement.

Affected Environment

A Relocation Impact Memorandum and Relocation Impact Statement were completed for this project in September 2010. The State Route 99/State Route 219 (Kiernan Avenue) interchange area consists primarily of commercial and industrial uses with some single-family residences in the area. Commercial uses include retail, fast-food restaurants, and storage. Industrial uses include warehousing and manufacturing. Single-family residences consist of three- and four-bedroom homes primarily built in or after 1987.

Environmental Consequences

For Alternative 1, a total of two single-family homes would be acquired for the proposed rebuilding of the State Route 99/State Route 219 (Kiernan Avenue) interchange. The homes are on the edge of a residential neighborhood. For Alternative 2, a total of three single-family homes would be acquired for the proposed project. Two of the homes are on the edge of a residential neighborhood of similar homes, and one is in a semi-industrial area. The residences are all one-story single-family homes 30 to 60 years old. The residences appear to be rentals, based on differing street and owner mailing addresses included in the parcel information.

For Alternative 1, as many as three industrial businesses and one office building would be moved for the proposed project. Under Alternative 2, up to four industrial businesses and one commercial business would be moved. Also under Alternative 2,

up to 256 personal-property moves from a mini-storage would be required. None of the businesses appear to rely on foot traffic or drive-by customers to be successful. It is anticipated that a new location in the general area would not affect the amount of money these businesses make.

Various information sources, including NationalRelocation.com, Realfacts.com, the U.S. Census Bureau, and the Modesto Bee indicate a 4 percent vacancy rate for the community. A review of local listings and advertising sources, including the Multiple Listing Service, revealed that there are an adequate number of single-family residences for rent or purchase in the community that are equal to or better than the properties from which the families moved. Also, based on a review of available office, commercial, and industrial properties in the Salida and surrounding north Stanislaus County area, a sufficient supply appears to exist of suitable replacement sites for sale or lease.

The number of available properties within the market area exceeds the amount needed to relocate the affected properties. Therefore, there are adequate resources currently available within or near the project area to facilitate relocations. The special needs of each displacement are not known at this time, but would be determined prior to negotiations for acquisition.

All persons who are moving because of the proposed project would be contacted by a Relocation Agent to ensure that eligible displaced residents receive their full relocation benefits, including advisory assistance, and that all activities would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Relocation resources would be available to all displaced residents free of discrimination. Tenant occupants of properties to be acquired are contacted soon after the first written offer to purchase and also are given a detailed explanation of Caltrans' Relocation Program Property Acquisition Policies Act of 1970, as amended. Caltrans would provide relocation advisory assistance to any person, business, farm, or non-profit organization displaced as a result of acquisition of real property for public use.

Avoidance, Minimization, and/or Mitigation Measures

The following measures would be required to address property displacements and relocations associated with the proposed project.

- A relocation agent would contact all displaced people. The agent would ensure that eligible displaced residents receive their full relocation benefits such as

advisory assistance, and that all activities will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Relocation resources shall be available, free of discrimination, to all displaced residents.

- The Uniform Relocation Assistance and Real Property Acquisitions Policies Act (Uniform Act) of 1970 (Public Law 91-646, 84 Stat. 1894) mandates that payments be made available to eligible residents, businesses, and nonprofit organizations displaced or affected by projects. The Uniform Act provides for equitable land acquisition policies.
- Where acquisition is unavoidable, the provisions of the Uniform Act and the 1987 Amendments as implemented by the Uniform Relocation Assistance and Real Property Acquisition Regulations for federal and federally assisted programs adopted by the Department of Transportation, March 2, 1989, would be followed. An independent appraisal of the affected property would be obtained, and an offer for the full appraisal would be made.

2.1.4.3 Environmental Justice

Regulatory Setting

All projects involving a federal action (funding, permit, or land exchange) must comply with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, signed by President Bill Clinton on February 11, 1994. This executive order directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based on the Department of Health and Human Services poverty guidelines. For 2009, this was \$22,050 for a family of four.

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

Affected Environment

The following analysis provides a comparison of measures that evaluate environmental justice:

- Ethnicity
- Percentage of population below poverty level
- Median household income

The proposed project would result in residential, non-residential industrial and commercial business displacements, which consist of up to three single-family homes, four industrial businesses, and one commercial business; therefore, property relocations are required. Race and ethnicity are presented in Table 2.5. Poverty-level characteristics of the community around the proposed project are listed in Table 2.6.

Table 2.6 Minority and Poverty Status of the Kiernan Avenue Area (Salida Community) and Stanislaus County

Study Area	Minority Population Percentage	Poverty Percentage	Median Household Income per Year
Salida Community	31%	7%	\$67,874
Stanislaus County	31%	16%	\$40,101

Source: United States Census 2000

Ethnic composition of the Salida community is 69 percent white and 31 percent minority populations. Stanislaus County and the Salida community have identical ethnic populations.

The percentage of people living below the federal poverty level in the State Route 99/State Route 219 (Kiernan Avenue) interchange area is 7 percent, while Stanislaus County is 16 percent.

A field review of the proposed project area, including the residences that would be relocated, found that most of the residences in the area are in fair to good condition.

Local newspapers were identified to determine if minority populations are present in the study area. Local newspapers such as the *Mundo Hispano*, *Vida En El Val*, *Portuguese American Chronicle*, and others have a strong presence in the Salida area.

The racial and economic makeup around the proposed project vicinity is mostly non-minority populations. Most residents live above the federal poverty level. Compared to the county, the number of minorities in the project area is about the same, but fewer residents live below the federal poverty level.

No minority or low-income populations that would be adversely affected by the proposed project have been identified, as determined above. Therefore, this project is not subject to the provisions of Executive Order 12898.

Environmental Consequences

No environmental consequences were identified.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation is required.

2.1.5 Utilities/Emergency Services

Affected Environment

The City of Modesto supplies water to the Salida community area. Numerous private wells also serve the community.

About 26 percent of the water supplied to the system originates from wells, with the remainder being treated surface water supplied by the City of Modesto. The City of Modesto Water Operations Division supplies drinking water to residents in Modesto, Empire, Salida, Waterford, Hickman, Grayson, Del Rio, parts of Ceres and Turlock, and county areas adjacent to the city system. For many years, Modesto's water customers received all of their water from wells. To continue delivering clean, dependable drinking water to customers, the city partnered with the Modesto Irrigation District in the early 1990s and in 1995 acquired the Del Este Water Company. Together, the city and irrigation district consolidated resources to build a 30-acre plant at Modesto Reservoir to treat surface water from the Tuolumne River.

Wastewater collection and treatment are provided by the Salida Sanitary District. The Regional Wastewater Control Facility is in Salida on Pirrone Road. The district treats wastewater using an intermittent-cycle extended-aeration system. Organisms that naturally live in the wastewater are allowed to increase in number through extended aeration in specially designed holding tanks. These organisms decompose the complex organic substances in the wastewater.

American Telephone and Telegraph Company provides telephone service in the community of Salida. Communications that include a mix of fiber optics, copper cable, and their supporting facilities are routed underground in public utility easements following the street alignments.

Electric and natural gas services are interwoven into the proposed project area and are provided by the Pacific Gas and Electric Company. Electric and gas facilities are routed above and below ground as needed in public utility easements. Of particular note is the natural gas distribution pipeline that extends through the project area.

The Salida Fire Protection District provides fire protection, paramedic emergency medical service, rescue, and response to hazardous materials incidents to the community of Salida. Both career and volunteer personnel are currently quartered in two modern stations. Station 1 is at East Broadway and Salida Boulevard in Salida, and Station 2 is at Tully and Ladd roads in the Del Rio area. Station 1 is within the project study area and would be affected by both build alternatives.

The Stanislaus County Sheriff's Department and California Highway Patrol provide police protection services. The Sheriff's Department patrols the county in six geographical sectors. There is a sub-station in each of these sectors, and a patrol lieutenant is assigned to each of these command sectors. The central command sector has two sub-stations, one in the community of Empire and another in the city of Hughson, which contracts with the Sheriff's Department for law enforcement services. The California Highway Patrol Central Division provides law enforcement services for California State Highways for the project area. The nearest California Highway Patrol area office is in the city of Modesto.

Environmental Consequences

Utility relocations would be required as a result of the proposed project. The American Telephone and Telegraph Company has underground facilities that would be affected by the project. The Pacific Gas and Electric Company has a gas-distribution pipeline that would be affected by the project. The Modesto Irrigation District has aboveground distribution facilities that would be affected by the project. The City of Modesto has a 12-inch water main that would be affected by the project. The Pacific Gas and Electric gas pipe, City of Modesto water pipe, and the American Telephone and Telegraph Company line are contained in a conduit structure that crosses State Route 99 within the existing Broadway Bridge.

Utility relocations are minor, occurring at the same time highway improvements are built and would create minimal customer disruption within the area surrounding the proposed project.

Emergency services would not be disrupted as a result of the proposed project. Temporary lane closures, expected during the build phase, would result in delays but

are not expected to disrupt emergency services. Once the project is complete, congestion would lessen, and traffic level-of-service would improve, benefiting emergency services response times.

Avoidance, Minimization, and/or Mitigation Measures

A number of utilities for water, wastewater, storm drainage, electric and natural gas services, and other services are in the project area. Construction of the proposed project may require the relocation of utilities that would be affected by the project. These relocations should not present any unusual situations and are considered routine for roadway construction projects. The following minimization measures would reduce impacts to utilities and emergency services:

- The project would be designed to minimize conflicts with utilities in the project area.
- The project would relocate those utilities made difficult to reach for maintenance or access purposes as a result of the project.
- The contractor would be required to notify utility users of any short-term, limited interruptions of service.
- If unexpected underground utilities were encountered, the contractor would work with the utility provider to develop plans to address the utility conflict, protect the utility if needed, and limit service interruptions.
- The contractor would circulate construction schedules and traffic control information to county emergency-service providers at least one to two weeks before any road closures.
- The Traffic Management Plan would address redirecting emergency services during temporary lane closures.

2.1.6 Traffic and Transportation/Pedestrian and Bicycle Facilities

Regulatory Setting

Caltrans, as assigned by Federal Highway Administration, directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 Code of Federal Regulations 652). Caltrans 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

Stanislaus County has seen rapid growth in the past several years. For the State Route 99/State Route 219 (Kiernan Avenue) interchange, this has meant an increase in the number of vehicles. The increase in traffic volumes has caused congestion in the interchange and surrounding intersections during peak-hour traffic. These conditions would become worse with continued regional growth and planned local development if roadways stay in current conditions. A Traffic Operations Report was prepared for this project in June 2010. This section is based on the findings of that report.

Accident History

Caltrans provided accident data for State Route 99 through the study corridor and the interchange as shown in Table 2.7 below. The data shows that a total of 154 accidents were reported on the State Route 99 mainline from April 1, 2006 to March 31, 2009. The accident rates are expressed in the number of accidents per million-vehicle-miles for the mainline and million-vehicles for intersections and ramps. The total accident rates within the project area on the State Route 99 northbound and southbound off-ramps and the State Route 219 (Kiernan Avenue)/Sisk Road intersection are higher than the statewide average for similar facilities. Building auxiliary lanes on the mainline between the State Route 99/Pelandale Avenue interchange and the State Route 99/State Route 219 (Kiernan Avenue) interchange would improve vehicle movements for exiting and entering traffic.

The Kiernan Avenue/Sisk Road intersection would be widened to provide more room for future traffic demand, reducing congestion and providing better traffic flow at the intersection. Table 2.7 shows a majority of accidents are non-fatal and/or non-fatal + injury. With the improved traffic flow and operation, the project should reduce the incidents of accidents due to reduced congestion and improved levels of service.

Table 2.7 Accident History

Facility	Number of Accidents			Accident Rate (accidents per million-vehicle-miles)					
	Total	Fatal	Fatal + Injury	Actual			State Average		
				Fatality	Fatal + Injury	Total	Fatality	Fatal + Injury	Total
State Route 99 (post mile R21.96 to R23.119)	154	0	45	0.000	0.31	1.07	0.009	0.28	0.88
Northbound Off-ramp to Broadway/State Route 219	10	0	2	0.000	0.35	1.73	0.002	0.31	1.00
Southbound On-ramp from Broadway/State Route 219	2	0	0	0.000	0.000	0.35	0.001	0.19	0.60
Northbound On-ramp from Broadway/State Route 219	2	0	0	0.000	0.000	0.29	0.001	0.19	0.60
Southbound Off-ramp to Broadway/State Route 219	7	0	1	0.000	0.16	1.13	0.002	0.31	1.00
State Route 219/Sisk Road	34	0	10	0.000	0.33	1.13	0.002	0.19	0.55

Note: Shading denotes locations that exceed the statewide average.
Source: Caltrans District 10 Traffic Accident and Surveillance Analysis System data between April 1, 2006 and March 31, 2009 for State Route 99 mainline and ramps and State Route 219.

Intersection Operations

Under the no-build alternative in 2015, several intersections are anticipated to operate at unacceptable levels-of-service (level-of-service E or worse) during the morning and/or afternoon peak hour (see Table 2.8). These conditions are worse at several intersections under the no-build alternative in 2035 (see Table 2.9).

State Route 99 Mainline and Ramp Operations

Each mainline segment, ramp junction, and weaving (merging) section on State Route 99 was analyzed based on the design year (2035) volumes and lane configurations shown in the Traffic Operations Analysis Report (Tables 2.11 and 2.12). In all scenarios, State Route 99 crossing the Stanislaus River into San Joaquin County would be three lanes in each direction. South of the Stanislaus River Bridge, State Route 99, with the exception of auxiliary lanes at two locations, would be four lanes.

An auxiliary lane would be built in the northbound direction between Pelandale Avenue and State Route 219 (Kiernan Avenue) as part of the State Route 99/Pelandale Avenue interchange project. This auxiliary lane was assumed to be in place under all alternatives, including the no-build alternative, and would be accommodated by widening State Route 99 to the outside. The auxiliary lane would

start from the single-lane northbound on-ramp at Pelandale Avenue and end at the State Route 219 (Kiernan Avenue) northbound off-ramp via a two-lane exit. The auxiliary lane would feed into the mandatory exit lane of the two-lane exit.

Under Alternative 1 of the proposed project, an auxiliary lane would be built on the same segment in the southbound direction to handle the shortened distance for merging. The southbound auxiliary lane would fit the design by widening State Route 99 to the outside. The auxiliary lane would start from the single-lane southbound on-ramp at State Route 219 (Kiernan Avenue) and end at the Pelandale Avenue southbound off-ramp via a mandatory single-lane exit. Under Alternative 2, the State Route 219 (Kiernan Avenue) southbound on-ramp would shift north, increasing the weaving distance to the Pelandale Avenue off-ramp, eliminating the need for an auxiliary lane.

Public Transportation and Pedestrian and Bikeway Facilities

Passenger bus service is provided within the project area at the State Route 99/Kiernan Avenue interchange by Stanislaus Regional Transit and Modesto Area Express.

Stanislaus Regional Transit, run by Stanislaus County, operates inter-city and inter-county fixed-route bus services and serves the cities of Modesto, Riverbank, Oakdale, Turlock, Patterson, Grayson, Westley, Newman, Gustine, and Merced. Within the project area, it operates the Waterford/Modesto Runabout service.

The runabout service combines both fixed stop and curb-to-curb service, allowing passengers to schedule a pick up location or board the bus at a designated stop without calling ahead. Kiernan Avenue forms the northern border for the runabout service area.

Modesto Area Express, run by the City of Modesto, operates local and inter-city bus services 358 days a year and serves the cities of Modesto, Ceres, Salida, and Empire. The route alternates between the Kiernan Avenue loop and the Salida-Pelandale loop.

Designated bus stops are located on the south side of Kiernan Avenue between Indian Ridge Lane and Kiernan Court and on Sisk Road south of the Kiernan Avenue/Sisk Road intersection.

There are no bicycle facilities on State Route 219 (Kiernan Avenue).

The pedestrian network in the study area consists primarily of limited sidewalks and crosswalks. Between the State Route 219 (Kiernan Avenue)/Sisk Road intersection and State Route 219 (Kiernan Avenue)/Salida Boulevard intersection, a sidewalk is provided on the south side of State Route 219 (Kiernan Avenue). A sidewalk on the north side of State Route 219 (Kiernan Avenue) crosses over State Route 99 from just east of the State Route 99 northbound ramps to the State Route 99 southbound ramps. Crosswalks and curb ramps are provided at both ramp terminal intersections.

Recent improvements to the State Route 219 (Kiernan Avenue)/Salida Boulevard intersection installed crosswalks and curb ramps on all legs of the intersection. Crosswalks are also provided on all four legs of the State Route 219 (Kiernan Avenue)/Sisk Road intersection. Ramps and sidewalks, however, are provided on only the west side of the intersection along Salida Boulevard.

Environmental Consequences

The following discussion compares the potential effects of constructing the build alternatives with the no-build alternative. Since both build alternatives (modified compact diamond and hybrid (Type L-1 and Type L-6)) have similar results, they are presented in the discussion below as “the build alternatives,” except where specifically referenced.

Impacts to Intersection Operations

At the 2035 build-out, as shown in Table 2.9, each of the build alternatives would reduce systemwide number of hours of delay compared to the no-build alternative. Fewer hours of delay mean improved traffic operations and reduced travel time through the interchange. Under both build alternatives, all intersections with signals would improve to acceptable levels (level-of-service D or better) except for the Indian Ridge Lane/State Route 219 (Kiernan Avenue) and Kiernan Court/State Route 219 (Kiernan Avenue) intersections, which would continue to operate unacceptably under both the no-build and build alternatives. Delays show notable improvement in the 2015 analysis with the build alternatives, but deteriorate somewhat by 2035 as a result of projected traffic increases (see Table 2.8).

Table 2.8 Intersection Analyses for 2015

Intersection	Traffic Control	Peak Hour	No-Build Alt.	Alt. 1	Alt. 2
			LOS	LOS	LOS
Salida Boulevard/State Route 219 (Kiernan Avenue)	Signal	Morning	D	B	C
		Afternoon	F	C	C
State Route 99 southbound ramps/State Route 219 (Kiernan Avenue)	Signal ¹	Morning	F	C	2a = A 2b = B
		Afternoon	F	C	2a = A 2b = A
State Route 99 northbound ramps/State Route 219 (Kiernan Avenue)	Signal ¹	Morning	F	B	B
		Afternoon	C	B	B
Indian Ridge Lane/Kiernan Avenue	SSSC ²	Morning	A (E)	A (F)	A (E)
		Afternoon	A (D)	A (C)	A (C)
Kiernan Court/State Route 219 (Kiernan Avenue)	SSSC ²	Morning	A (C)	A (A)	A (A)
		Afternoon	C (F)	A (B)	A (C)
Sisk Road/State Route 219 (Kiernan Avenue)	Signal ¹	Morning	D	C	C
		Afternoon	F	D	D
Systemwide Vehicle Hours of Delay ⁴		Morning	299	74	82
		Afternoon	599	105	107
<p>Notes: Results based on SimTraffic simulation of 10 runs.</p> <ol style="list-style-type: none"> 1. Signalized intersection level-of-service based on weighted-average control delay per vehicle, according to the <i>2000 Highway Capacity Manual</i>. 2. Side-street stop intersection level-of-service based on weighted-average control delay per vehicle and worst approach control delay per vehicle, according to the <i>2000 Highway Capacity Manual</i> in the notation: average (worst approach). 3. Under Alternative 2, the southbound ramps are split into two intersections. The off-ramp intersection (2a) is presented first followed by the on-ramp intersection (2b). 4. The vehicle delay was computed by adding up each intersection's vehicle delay that is computed by multiplying the demand volume by the intersection delay (measured in vehicle-hours). <p>Source: Fehr & Peers, 2010.</p>					

Table 2.9 Intersection Analyses for 2035

Intersection	Traffic Control	Peak Hour	No-Build Alt.	Alt. 1	Alt. 2
			LOS	LOS	LOS
Salida Boulevard/State Route 219 (Kiernan Avenue)	Signal	Morning	F	C	C
		Afternoon	F	C	C
State Route 99 southbound ramps/State Route 219 (Kiernan Avenue)	Signal ¹	Morning	F	C	2a = B 2b = B ³
		Afternoon	E	B	2a = A 2b = A ³
State Route 99 northbound ramps/State Route 219 (Kiernan Avenue)	Signal ¹	Morning	F	C	C
		Afternoon	F	B	C
Indian Ridge Lane/State Route 219 (Kiernan Avenue)	SSSC ²	Morning	B (F)	E (F)	E (F)
		Afternoon	A (C)	A (D)	A (F)
Kiernan Court/State Route 219 (Kiernan Avenue)	SSSC ²	Morning	A (F)	A (A)	A (A)
		Afternoon	F (F)	A (C)	A (E)
Sisk Road/State Route 219 (Kiernan Avenue)	Signal ¹	Morning	E	C	C
		Afternoon	F	C	C
Systemwide Vehicle Hours of Delay ⁴		Morning	929	145	150
		Afternoon	1,738	125	138
<p>Notes: Results based on SimTraffic simulation of 10 runs.</p> <ol style="list-style-type: none"> 1. Signalized intersection level-of-service based on weighted-average control delay per vehicle, according to the <i>2000 Highway Capacity Manual</i>. 2. Side-street stop intersection level-of-service based on weighted-average control delay per vehicle and worst approach control delay per vehicle, according to the <i>2000 Highway Capacity Manual</i> in the notation: average (worst approach). 3. Under Alternative 2, the southbound ramps are split into two intersections. The off-ramp intersection (2a) is presented first followed by the on-ramp intersection (2b). 4. The vehicle delay was computed by adding up each intersection's vehicle delay that is computed by multiplying the demand volume by the intersection delay (measured in vehicle-hours). <p>Source: State Route 219/State Route 99 Interchange Reconstruction Project Traffic Operations Report, 2010.</p>					

Impacts to State Route 99 Mainline and Ramp Operations

Each mainline segment, ramp junction, and weaving (merging) section on State Route 99 was analyzed based on 2015 and 2035 volumes and lane configurations. Tables 2.10, 2.11, 2.12, and 2.13 show that the proposed project would have no effect on the mainline operations due to the queuing (vehicle backup) caused by insufficient mainline capacity. Some ramp operations would be improved in the southbound direction in both the morning and afternoon peak hours.

Table 2.10 Morning Peak-Hour Traffic on State Route 99 Mainline and Ramp Intersection for 2015

Location	Number of Lanes	Section Type	No-Build Alt.	Alt. 1	Alt. 2
			LOS ^{1,2}	LOS ^{1,2}	LOS ^{1,2}
Between Pelandale Avenue and State Route 219 (Kiernan Avenue) (northbound)	3 + Aux	Weave	E	E	E
Off-ramp to State Route 219 (Kiernan Avenue) ² (northbound)	1/2	Weave	E	E	E
On-ramp from State Route 219 (Kiernan Avenue) (northbound)	1	Merge	E	E	E
Between Kiernan Avenue and Hammett Road (northbound)	4	Mainline	D	D	D
Between Hammett Road and State Route 219 (Kiernan Avenue) (southbound)	2	Mainline	F³	D	D
Off-ramp to State Route 219 (Kiernan Avenue) (southbound)	1	Diverge	F³	D	D
On-ramp from State Route 219 (Kiernan Avenue) ⁴ (southbound)	1	Merge	E	C	C
Between State Route 219 (Kiernan Avenue) and Pelandale Avenue ⁴ (southbound)	3/ 3 + Aux	Mainline/Weave	D	C	C

Note: **Shaded cells** represent mainline segments that are backed up due to downstream bottlenecks not captured by the HCM analysis, resulting in level-of-service F operations. **Bold** denotes level-of-service E or F operations.

1. Level-of-service.
2. Density is in passenger cars per mile per lane.
3. This section is anticipated to be backed up as a result of vehicles backed up from the southbound off-ramp intersection.
4. This section is a basic segment under no-build conditions and a weaving section under build conditions.

Source: State Route 219/State Route 99 Interchange Reconstruction Project Traffic Operations Report, 2010.

Table 2.11 Morning Peak-Hour Traffic on State Route 99 Mainline and Ramp Intersection for 2035

Location	Number of Lanes	Section Type	No-Build Alt.	Alt. 1	Alt. 2
			LOS ^{1, 2}	LOS ^{1, 2}	LOS ^{1, 2}
Between Pelandale Avenue and Kiernan Avenue (northbound)	4 + Aux	Weave	F	F	F
Off-ramp to Kiernan Avenue ² (northbound)	1/2	Weave	F	F	F
On-ramp from Kiernan Avenue (northbound)	1	Merge	F	F	F
Between Kiernan Avenue and Hammett Road (northbound)	4	Mainline	F	F	F
Between Hammett Road and Kiernan Avenue (southbound)	4	Mainline	F³	C	C
Off-ramp to Kiernan Avenue (southbound)	1	Diverge	F³	C	C
On-ramp from Kiernan Avenue ⁴ (southbound)	1	Merge	C	B	C
Between Kiernan Avenue and Pelandale Avenue ⁴ (southbound)	4/ 4 + Aux	Mainline/Weave	C	B	C

Note: **Shaded cells** represent mainline segments that are backed up due to downstream bottlenecks not captured by the HCM analysis, resulting in level-of-service F operations. **Bold** denotes level-of-service E or F operations.

1. Level-of-service.
2. Density is in passenger cars per mile per lane.
3. This section is anticipated to be congested as a result of vehicles backed up from the southbound off-ramp intersection.
4. This section is a basic segment under no-build conditions and a weaving section under build conditions.

Source: State Route 219/State Route 99 Interchange Reconstruction Project Traffic Operations Report, 2010.

Table 2.12 Afternoon Peak-Hour Traffic on State Route 99 Mainline and Ramp Intersection for 2015

Location	Number of Lanes	Section Type	No-Build Alt.	Alt. 1	Alt. 2
			LOS ^{1,2}	LOS ^{1,2}	LOS ^{1,2}
Between Pelandale Avenue and Kiernan Avenue (northbound)	3 + Aux	Weave	E	E	E
Off-ramp to Kiernan Avenue ² (Northbound)	1/2	Weave	E	E	E
On-ramp from Kiernan Avenue (northbound)	1	Merge	D	D	D
Between Kiernan Avenue and Hammett Road (northbound)	3	Mainline	F	F	F
Between Hammett Road and Kiernan Avenue (southbound)	3	Mainline	F³	D	D
Off-ramp to Kiernan Avenue (southbound)	1	Diverge	F³	D	D
On-ramp from Kiernan Avenue ⁴ (southbound)	1	Merge/ Weave	E	C	C
Between Kiernan and Pelandale Avenue ³ (southbound)	3/ 3 + Aux	Mainline/ Weave	D	C	C

Note: **Shaded cells** represent mainline segments that are backed up due to downstream bottlenecks not captured by the HCM analysis, resulting in level-of-service F operations. **Bold** denotes level-of-service E or F operations.

1. Level-of-service.
2. Density is in passenger cars per mile per lane.
3. This section is anticipated to be congested as a result of vehicles backed up from the southbound off-ramp intersection.
4. This section is a basic segment under no-build conditions and a weaving section under build conditions.

Source: Fehr & Peers, 2010.

Table 2.13 Afternoon Peak-Hour Traffic on State Route 99 Mainline and Ramp Intersection for 2035

Location	Number of Lanes	Section Type	No-Build Alt.	Alt. 1	Alt. 2
			LOS ^{1, 2}	LOS ^{1, 2}	LOS ^{1, 2}
Between Pelandale Avenue and Kiernan Avenue (northbound)	4 + Aux	Weave	F	F	F
Off-ramp to Kiernan Avenue ² (Northbound)	1/2	Weave	F	F	F
On-ramp from Kiernan Avenue (northbound)	1	Merge	F	F	F
Between Kiernan Avenue and Hammett Road (northbound)	4	Mainline	F	F	F
Between Hammett Road and Kiernan Avenue (southbound)	4	Mainline	F³	C	C
Off-ramp to Kiernan Avenue (southbound)	1	Diverge	F³	C	C
On-ramp from Kiernan Avenue ⁴ (southbound)	1	Merge/ Weave	D	D	D
Between Kiernan and Pelandale Avenue ³ (southbound)	4/ 4 + Aux	Mainline/ Weave	C	D	C

Note: **Shaded cells** represent mainline segments that are backed up due to downstream bottlenecks not captured by the HCM analysis, resulting in level-of-service F operations. **Bold** denotes level-of-service E or F operations.

1. Level-of-service.
2. Density is in passenger cars per mile per lane.
3. This section is anticipated to be backed up as a result of vehicles backed up from the southbound off-ramp intersection.
4. This section is a basic segment under no-build conditions and a weaving section under build conditions.

Source: Fehr & Peers, 2010.

Impacts to Public Transportation

Public transportation within the Salida area would not be greatly affected during the build phase of the project. Bus routes along State Route 99 and State Route 219 (Kiernan Avenue) would have minor delays. Once construction is complete, the proposed project is expected to improve traffic flow.

The proposed project would not affect transit-dependent persons. While there are residents in the Salida Community area who do not or cannot drive a vehicle, these needs are met by friends, relatives or by other means, including a fixed bus route, dial-a-ride, specialized dial-a-ride, fixed intercity bus routes, fixed interregional bus routes, and intercity and commuter rail service. Within the Salida community and Modesto area, there are also numerous taxi companies that offer service 24 hours a day. Ultimately, since public transportation systems would not be greatly affected by the project, any transit-dependent population would, likewise, not be affected.

Impacts to Pedestrian and Bikeway Facilities

Both build alternatives would provide pedestrian/bikeway facilities that are consistent with the Stanislaus County's planned future pedestrian/bikeway network. Based on the Stanislaus County Street Design Guidelines, arterials should provide a minimum 8-foot-wide detached sidewalk/bike path on each side of the roadway.

Avoidance, Minimization, and/or Mitigation Measures

The project would implement the following measures to reduce construction-related traffic impacts:

- The contractor would be required to prepare and implement a traffic management plan that would identify the locations of temporary detours and signage to facilitate local traffic patterns and through-traffic requirements.
- The project special provisions of the highway contract would require that emergency service providers (i.e., law enforcement, fire protection, and ambulance services) be given adequate advance notice of any street closures during the construction phases of the proposed project.
- Construction activities would be coordinated to avoid blocking or limiting access to homes and businesses to the extent possible. Residents and business owners would be notified in advance about potential access or parking problems before construction activities begin.
- Any interchange, ramp, or road closures required during construction would, to the extent possible, be limited to nighttime hours to reduce effects on businesses in the study area. Alternative 2 would provide temporary southbound ramp relocations north and south of Kiernan Avenue during construction.

- The traffic management plan would be prepared to address short-term disruptions in existing circulation patterns during construction; for example, the traffic management plan would identify the locations of temporary detours or temporary roads to facilitate local traffic circulation and through-traffic requirements.

2.1.7 Visual/Aesthetics

Regulatory Setting

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

Likewise, the California Environmental Quality Act establishes that it is the state's policy 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 prepared in June 2010 to assess visual impacts. The project area is in Stanislaus County about 65 feet above sea level on a floodplain just south of the Stanislaus River and 8 miles east of the San Joaquin River.

About 90 miles west is the San Francisco Bay area. The beach at Santa Cruz is about 115 miles southwest. To the east about 50 miles is Mother Lode country in the Sierra Nevada foothills. Farther east is the Sierra Nevada Mountain Range and Yosemite National Park.

Project-area terrain is typical of this region: relatively flat with few distinct landforms such as rolling hills, mountains, or low lying valleys. Stanislaus County is in the heart of the San Joaquin Valley, one of the nation's largest agricultural areas. Dairy products, almonds, apricots, melons, tomatoes, wine grapes, peaches, walnuts, and poultry products are some of the county's top products.

The community of Salida lies south of Stockton on State Route 99 between the city of Manteca and the city of Modesto. State Route 219 (Kiernan Avenue), aligned northeast to southwest, passes over State Route 99. The project is in a commercial area within Salida. Although most of the land around Salida is agricultural, the land adjacent to the project area is mostly for businesses and residences.

Along State Route 219 (Kiernan Avenue), east of Sisk Road, the land is mostly used for agriculture. From Sisk Road west, however, along State Route 219 (Kiernan Avenue) to Salida Boulevard, the land use is mostly commercial and industrial. Developed areas in the vicinity include commercial businesses, light industrial, residences, and roadways.

The Visual Impact Assessment included a field review of distinct landscapes surrounding each part of the proposed project. The analysis was consistent with the Federal Highway Administration *Visual Impact Assessment for Highway Projects*. As part of the visual impact assessment, the following observation points were used to evaluate visual quality:

- Observation Point 1—The State Route 99 southbound off-ramp at the State Route 219 (Kiernan Avenue) overcrossing
- Observation Point 2—The intersection of State Route 219 (Kiernan Avenue) and Salida Boulevard
- Observation Point 3—Along State Route 99 near State Route 219 (Kiernan Avenue)
- Observation Point 4—The intersection of State Route 219 (Kiernan Avenue) and Sisk Road

Environmental Consequences

Views of State Route 219 (Kiernan Avenue)

Visual quality was evaluated on a scale from 1 to 7 (very low to very high). The evaluation assesses the differences between the existing conditions and those changes due to proposed roadway improvements. As noted in Table 2.14, both build alternatives have an average visual quality rating that is slightly lower than the existing condition.

Table 2.14 Evaluation of Visual Quality on State Route 219 (Kiernan Avenue)

Observation Point	Rating for Existing Avenue	Alternative 1 Rating	Alternative 2 Rating
1	2.70	2.70	2.70
2	2.70	2.50	2.36
3	2.38	2.35	2.32
4	2.57	2.05	2.05
Total:	10.35	9.60	9.43
Average:	2.58	2.40	2.35

For both build alternatives, local residents would experience a minimal decline in the surrounding visual environment as a result of the proposed project. The loss in visual quality would be minor and is mainly due to the addition of travel lanes to an existing roadway and the changes to freeway ramps.

Alternative 2 would have the most noticeable change to the visual environment. The existing diamond interchange would be changed to a hybrid diamond/loop interchange, altering the on- and off-ramps in both directions. Due to the existing urban character of the area, however, it would not change the overall visual environment of this portion of the Salida community.

Views from State Route 219 (Kiernan Avenue) toward Adjacent Views

Table 2.15 evaluates the views from Kiernan Avenue of the nearby setting after the proposed roadway improvements are built. Visual quality was evaluated on a scale from 1 to 7 (very low to very high).

Table 2.15 Evaluation of the Visual Quality of Adjacent Settings as seen from Kiernan Avenue

Observation Point	Rating for Existing Avenue	Alternative 1 Rating	Alternative 2 Rating
1	2.44	2.27	2.22
2	2.05	2.22	2.00
3	2.28	2.08	2.30
4	2.0	1.99	2.05
Total:	8.77	8.56	8.57
Average:	2.2	2.14	2.14

Although building the project would degrade the view from some locations, travelers on State Route 99 and State Route 219 (Kiernan Avenue) would experience a small

change in the visual environment as a result of the proposed project. The views from the road to adjacent areas would remain unchanged from current conditions.

Alternative 2 would have the most noticeable change to the visual environment. Although the existing diamond interchange would be changed to a hybrid diamond/loop interchange, altering the shape and size of the on- and off-ramps in both directions, the change would not alter the overall visual environment of this portion of the Salida community. Like Alternative 1, the view would be changed due to roadway improvements, but impacts would be low to minimal.

Street lights would be proposed in specific locations as part of the interchange improvements. With the existing light sources currently within the project area, new street lighting would not change an otherwise illuminated and urbanized environment. While the street lighting is not expected to generate a substantial amount of glare, for Alternative 2 possible additional lighting added to the new ramps may create a slight increase in night-time glare conditions for residents adjacent to the proposed freeway on- and off-ramps.

Rebuilding the State Route 99/State Route 219 (Kiernan Avenue) interchange would have a negligible impact on the visual environment within the project area. Visual impacts related to the proposed project are minor because the interchange already exists and is presently in use. Rebuilding the interchange would include landscaping to enhance local aesthetics. See Figures 2-2a to 2-2c for visual simulations.

Avoidance, Minimization, and/or Mitigation Measures

Overall impacts to “views of the road” result in some decline to the surrounding visual environment as a result of the proposed project. Changes to the view as a result of the project alternatives would marginally degrade all observation points. Overall, however, the proposed project would not dramatically change the view. The following measures would help reduce visual impacts:

- Architectural detailing and/or surface treatments consistent with the surrounding community should be incorporated into the new bridge design.
- Artistic soundwall design should be used to break up the built environment and enhance the driving experience. Soundwall design should be compatible with the surrounding area and meet community goals.

- Soundwalls should be designed to discourage or prevent graffiti. Some examples of anti-graffiti soundwall design may include rough-textured finishes or uneven surfaces, graffiti-resistant coatings, and vine plantings of a type that would attach to walls.
- Replacement planting would include the replacement of removed landscaping.
- Areas affected or disturbed by construction would be replanted with a standard replacement landscape and irrigation systems.

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SOURCE: Visual Impact Assessment Kiernan Avenue State Route 219/State Route 99 Interchange Reconstruction Project, June 2010.

Figure 2-2a
Visual Simulation Existing Conditions
EA # 10-0L330
10-STA-99-PM R21.9/R23.1
10-STA-219-PM 0.0/0.3

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SOURCE: Visual Impact Assessment Kiernan Avenue State Route 219/State Route 99 Interchange Reconstruction Project, June 2010.

Figure 2-2b
Visual Simulation Alternative 1
EA # 10-0L330
10-STA-99-PM R21.9/R23.1
10-STA-219-PM 0.0/0.3

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SOURCE: Visual Impact Assessment Kiernan Avenue State Route 219/State Route 99 Interchange Reconstruction Project, June 2010.

Figure 2-2c
Visual Simulation Alternative 2
EA # 10-0L330
10-STA-99-PM R21.9/R23.1
10-STA-219-PM 0.0/0.3

2.2 Physical Environment

2.2.1 Water Quality and Storm Water Runoff

Regulatory Setting

Section 401 of the Clean Water Act requires water quality certification from the State Water Resources Control Board or from a Regional Water Quality Control Board when a project requires a Clean Water Act Section 404 permit. Section 404 of the Clean Water Act requires a permit from the United States Army Corps of Engineers 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 the State Water Regional Control Board and nine Regional Water Quality Control Boards. The State Water Regional Control Board and Regional Water Quality Control Board also regulate other waste discharges onto land within California through the issuance of waste discharge requirements under authority of the Porter-Cologne Water Quality Act.

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

Affected Environment

A Draft Water Quality Assessment Report was completed for the project in October 2010. In addition, a Stormwater Data Report (June 2010) and Preliminary Drainage Report (February 2010) were prepared by the project engineer. The results of these reports are summarized in the following section.

The project area is in the San Joaquin River Basin. The Stanislaus River, which flows approximately 2 miles northwest of the project site and would not be directly affected by the project, is one of the largest rivers to join with the San Joaquin River on its way to the Sacramento-San Joaquin River Delta. The proposed project is within the Modesto groundwater subbasin that lies between the Stanislaus River to the north, the Tuolumne River to the south, the San Joaquin River to the west, and the Sierra Nevada foothills to the east. The surface area of the subbasin is 247,000 acres.

There are four known aquifers (underground water sources) in the Modesto groundwater subbasin. The cities of Modesto, Oakdale, and Riverbank and the communities of Salida, Empire, and Waterford use this groundwater to supply their residents. Groundwater in the Modesto subbasin is for the most part of good quality. Locally, some problem pollutants include totally dissolved solids, nitrates, radionuclides, dibromochloropropane, and volatile organic compounds. In addition to these pollutants, localized areas of human-made contamination such as gasoline and solvents are present.

The portion of the Stanislaus River nearest the proposed project is currently on the Clean Water Act (section 303[d]) list of Water Quality Limited Segments and therefore does not currently meet state water-quality standards. Diazinon, pesticides, and mercury are known pollutants exceeding current standards for the river.

Environmental Consequences

Short-Term (Temporary) Water Quality Impacts

During construction, the State Route 99/State Route 219 (Kiernan Avenue) interchange project has potential to produce temporary water quality impacts caused by grading activities and vegetation removal, which increase erosion (movement of soils into water bodies). Stormwater runoff from the proposed project may transport pollutants to nearby water resources, such as storm drains, if best management practices are not properly used. Generally, as the disturbed-soil areas increase, the potential for temporary water quality impacts also increases. Alternative 1 has an estimated disturbed-soil area of approximately 21 acres. Alternative 2 has an estimated disturbed-soil area of approximately 26 acres.

Fueling or maintenance of construction vehicles would also occur within the proposed project during construction, resulting in a risk of accidental spills or releases of fuels, oils, or other potentially toxic materials. An accidental release of these materials may pose a threat to water quality if contaminants enter storm drains, open

channels, or areas where water can pool. The affects from an accidental release depends on the amount and type of material spilled.

Long-Term (Permanent) Water Quality Impacts

Potential long-term water quality impacts are due to changes in stormwater drainage. Because the project would result in a permanent increase of impervious surfaces (surfaces water cannot penetrate), it would also result in a permanent increase in runoff and increased pollution. The primary pollutants would be sediments, oil by-products, and metals. These substances are washed off the highway surface by rainfall and become runoff. Runoff in large enough amounts occurs only during heavy storms that in turn cause the pollutants to be greatly diluted. These storms cause some high flows in the drainage systems, further diluting the pollutants as they are carried from the source.

Caltrans uses a statewide Storm Water Management Plan. The Storm Water Management Plan addresses Caltrans runoff impacts on water quality standards, develops a level of pollutant quantities that a body of water can receive while still meeting water quality standards (total maximum daily load), and watershed planning. The Storm Water Management Plan would also be used to characterize runoff from Caltrans roadways and storm-drain systems owned or operated by Caltrans and aid Caltrans in determining appropriate and adequate best management practices.

The proposed project design would incorporate permanent erosion control elements: primarily permanent vegetation to ensure that stormwater runoff does not cause soil erosion. Use of the project-specific long-term mitigation measures, design best management practices, and if necessary, treatment best management practices, would also reduce or avoid impacts on water quality.

It should be noted that, due to the lack of surface water resources in the immediate project area, long-term water quality impacts have the potential to occur only at nearby storm drains.

Drainage

The offsite drainage design for the proposed project is based on the procedures presented in the Highway Design Manual, Sixth Edition, California Department of Transportation and guidelines received from Caltrans District 10 Hydraulics Division. There are some existing offsite or cross-culvert facilities within the limits of the project, mostly crossing or contained in the local streets and State Route 219 (Kiernan Avenue). The project would not have a significant effect on the hydrologic or

hydraulic conditions of any offsite drainage facilities owned by Caltrans or any other agency.

New pavement drainage inlets would be placed at necessary locations to eliminate concentrated flow from crossing the roadway. Without proper drainage design, there are a number of locations where sheet flow is possible: at the ends of median curbs along sloped pavement; at locations of sloped reversals; and at locations where inlet capacity is insufficient.

The project includes construction along the outside shoulder of all ramps to make room for pavement widening. The widening would require modifications to the adjacent cut or fill slopes. Modifications to the cut slopes include re-grading the slopes or the placement of retaining walls. Changes to the nearby fill slopes would include building retaining walls or widening the fill slopes. Retaining walls would be designed to capture and convey runoff from the slopes above the walls to drains at the bottom of the walls. Retaining walls made of fill would have inlets along the tops of the walls at the edge of the roadway shoulders.

There are two forms of underdrains on this project. First, underdrains along the edge of the State Route 99 pavement would intercept groundwater before the water enters the structural section of the pavement, followed by delivering the intercepted water to the stormwater pump station. Second, the underdrains built along State Route 219 (Kiernan Avenue) and other local roads would act as discharge points for stormwater runoff. These underdrains are meant to hold a certain volume of runoff in pipes and surrounding absorption zone, allowing the runoff to seep into the ground through holes in the pipes.

The project site is also within the Modesto Irrigation District, a major water supplier in the Modesto groundwater subbasin. The Modesto Irrigation District is a public utility that supplies surface water, groundwater, and electrical service to agricultural and municipal customers throughout its 101,700-acre service area. The Modesto Irrigation District has both irrigation wells and drainage pumping wells. The Modesto Irrigation District owns and maintains lateral canal number 6 that flows through the southern portion of the project area.

With the loss of water storage capacity in the existing retention basins and the increase in impervious (pavement) area, both Alternatives 1 and 2 would add additional retention basins to offset the loss in volume (amount of water stored), providing additional volume for the increased pavement area. With an adequate

margin of error, the retention basins would have the capacity to hold two 10-year, 24-hour storms and are sized for the ultimate build-out condition using one 10-year, 24-hour storm.

Under Alternative 1, one existing retention basin would be removed, one existing retention basin would be modified, and two additional retention basins would be built (for a total of three retention basins). For Alternative 2, one existing retention basin would be removed, one existing retention basin would be modified, and four additional retention basins would be built (for a total of five retention basins).

The existing highway stormwater pump station would be demolished as part of the proposed project. The pump station would be replaced with a new pump station just north of the existing pump station. The existing storage box would remain, with the existing box extended to connect to the new pump station.

Avoidance, Minimization, and/or Mitigation Measures

With the following avoidance, minimization, and proposed mitigation measures incorporated, the proposed project would have minimal effect on water quality:

- Preparation and use of construction-site best management practices in compliance with the provisions of Caltrans' Statewide National Pollutant Discharge Elimination System permit and any subsequent permit as it relates to construction activities for the project. This would include submission of a notice of construction to the Regional Water Quality Control Board at least 30 days before the start of construction; preparation and implementation of a Stormwater Pollution Prevention Plan; and submission of a notice of construction completion to the Regional Water Quality Control Board upon completion of construction and stabilization of the project site.
- Consideration and incorporation of design pollution prevention and treatment control best management practices for the project, in accordance with the procedures outlined in the Stormwater Quality Handbooks, Project Planning and Design Guide would be followed. This would include coordination with the Regional Water Quality Control Board with respect to feasibility, maintenance, and monitoring of treatment control best management practices as set forth in the Caltrans' Statewide Stormwater Management Plan.
- Identify all potential locations of concentrated flow and provide proper pavement drainage design to reduce concentrated flow to the accepted maximum of 0.1 cubic feet per second.

- Where existing fill slopes are changed, all existing drains or swales that are affected should be relocated, extended, or altered as necessary to accommodate drainage.
- Where affected, the existing underdrains would be rerouted or relocated to be next to the changed edge of pavement. Any reconstruction of underdrains would be to current Caltrans standards.
- Additional retention basins are required to offset the loss in volume (amount of water stored) and provide additional volume for the increased pavement area. Alternative 1 would remove one existing retention basin, modify a second existing retention basin, and build two additional retention basins (for a total of three retention basins). Alternative 2 would remove one existing retention basin, modify a second existing retention basin and build four new retention basins (for a total of five retention basins). With an adequate margin of error, the retention basins would have the capacity to hold two 10-year, 24-hour storms and are sized for the ultimate build-out condition using one 10-year, 24-hour storm.
- The existing pump station should be replaced with a new pump station to be located just north of the existing pump station. The existing storage box would remain, with the existing box extended to connect to the new pump station. The new pump station would discharge to the same 30-inch storm drain that serves the existing pump station. The new pump station peak discharge would be limited to the existing peak discharge of 3,500 gallons per minute, with a total dynamic head of 25 feet. There are two pumps with this capacity, plus a low flow pump with capacity of 300 gallons per minute. In the new pump station, the low-flow or groundwater pump would be in a nearby structure with a separate wet well.

2.2.2 Paleontology

Regulatory Setting

Paleontology is the study of life in past geologic times based on fossil plants and animals. A number of federal statutes 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 United States Code 431-433]; Federal-Aid Highway Act of 1935 [20 United States Code 78]). Under California law, the California Environmental Quality Act, the California Administrative Code, Title 14, Section 4306 and subsections, and Public Resources Code Section 5097.5 protect paleontological resources.

Affected Environment

A Paleontological Identification and Evaluation Report was prepared in March 2010. The ground in the project area is mainly flat due to natural topography and current and historic agricultural land uses. The project lies in the north-central portion of the San Joaquin Valley, a large structural trough situated between the Coast Ranges and the Sierra Nevada Mountain Range. At this location, the San Joaquin Valley is filled with marine and alluvial sediments deposited by the Stanislaus River. These deposits have in the past produced important fossils.

The project area is underlain by two paleontologically sensitive Pleistocene formations consisting of the Riverbank and Modesto formations. In the past, vertebrate (animals with backbones) and invertebrate (animals without backbones) fossils have been found in both the Riverbank and Modesto formations in the project vicinity.

A field survey of the project area, which included visual inspection of areas with exposures that might reasonably be predicted to contain fossils, documented the presence of any previously unrecorded fossil sites. Although no fossils were reported within the project area, the presence of fossils in sediments of the Riverbank and Modesto formations elsewhere in the vicinity suggests a high potential for fossil remains to be uncovered by project excavations.

Recovered fossil remains could provide a more comprehensive view of the diversity of animal and plant life that once existed in Stanislaus County and could result in a more accurate reconstruction of the geologic and paleobiologic history of the San Joaquin Valley.

Environmental Consequences

This project would modify or excavate three retention basins for Alternative 1 and five retention basins for Alternative 2. Potential impacts on paleontological resources resulting from construction of the project would primarily involve terrain modification. The entire area of potential disturbance has been mapped on the Late Pleistocene Modesto Formation, and any excavation into original soils would affect these Late Pleistocene deposits, potentially disturbing paleontologically sensitive strata and affecting paleontological resources. Excavation work includes all digging for traffic signs, lighting, utility relocation, retention basins, water pipes, pump station relocation, and vegetation clearing. Excavation for roadway reconstruction is not anticipated to go deeper than 2 to 3 feet and may only affect artificial fill beneath the

current road. If there is no artificial fill beneath the road, this work has the potential to encounter the Modesto Formation.

There is also the potential for excavation to affect the deeper Middle Pleistocene Riverbank Formation during excavation for 30-foot-deep traffic signals and 60-foot-deep piles. The Riverbank Formation may also be encountered during excavation for the center-bridge pier. Excavation for the 7-foot-deep center-bridge pier would take place in portions of the area of potential disturbance where 20 feet was previously cut for the construction of State Route 99, leading to possible impacts of undisturbed Middle Pleistocene layers.

Table 2.16 contains general excavation parameters for project ground disturbance.

Table 2.16 General Excavation Parameters

Improvement	Excavation Depth	Width/Area	Formation
Roadway Reconstruction	Maximum of 3 feet	Not specified	Artificial fill, possibly Modesto Formation
Abutments	5 feet	165 feet by 8 feet	Modesto Formation
Traffic Signage	5 feet	2-foot-wide trench	Modesto Formation
Center-Bridge Pier	7 feet (~27 feet below original ground surface)	14 feet by 16 feet	Modesto Formation, possibly Riverbank Formation
Lighting	6 feet	2-foot-wide trench	Modesto Formation
Utility Relocation	8 feet	10-foot-wide trench	Modesto Formation
Basin Water Pipes	8 feet	10 feet	Modesto Formation
Retention Basins	10 feet	Not specified	Modesto Formation
Pump Station Relocation	12 feet	900 square feet	Modesto Formation.
Traffic Signals	30 feet	3-foot-wide trench	Modesto Formation, possibly Riverbank Formation
Piles	60 feet	14-inch diameter	Modesto Formation, possibly Riverbank Formation

Avoidance, Minimization, and/or Mitigation Measures

Because the proposed project would affect paleontologically sensitive strata that are potentially of scientific significance, a Paleontological Mitigation Plan would be developed and implemented. The implementation of the Paleontological Mitigation Plan before construction would reduce potential adverse impacts to paleontological

resources that would otherwise result from construction. This Paleontological Mitigation Plan should be synthesized from outlines and guidelines provided by Caltrans and the Society of Vertebrate Paleontology and be specifically tailored to the resources and sedimentary formations encountered by the project. The Society of Vertebrate Paleontology and the University of California Museum of Paleontology at University of California Berkeley would be consulted to ensure that the full range of potential scientific research domains are adequately addressed.

In areas determined to have a high potential for paleontological resources, the Paleontological Mitigation Plan should include the following:

- A preliminary survey and surface salvage would be done prior to construction.
- A qualified principal paleontologist would be present at pre-grading meetings to consult with grading and excavation contractors.
- Monitoring and salvage would be done during excavation. A paleontological monitor, under the direction of the qualified principal paleontologist, would be on-site at all times during original grading involving sensitive geologic formations to inspect road cuts for fossils.
- Preparation, such as screen washing to recover small specimens (if applicable), would be done. Specimen preparation to a point of stabilization, including identification, cataloging, curation, and storage of specimens would also be carried out.
- A final report would be done to document outlines the mitigation of any finds and their significance. The report would be deposited in a scientific institution with any paleontological collections.

The Paleontological Mitigation Plan would assist Caltrans in complying with environmental laws and regulations requiring mitigation of impacts on paleontological macrofossil resources if found within the project.

2.2.3 Hazardous Waste or 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 main federal laws regulating hazardous wastes and materials are the Resource Conservation and Recovery Act of 1976 and the Comprehensive Environmental Response, Compensation and Liability Act of 1980. The purpose of the Comprehensive Environmental Response, Compensation and Liability Act, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. The Resource Conservation and Recovery Act provides for “cradle to grave” regulation of hazardous wastes. Other federal laws include the following:

- Community Environmental Response Facilitation Act of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety and Health Act
- 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 mainly 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 disturbed during project construction is vital.

Affected Environment

A Phase 1 Initial Site Assessment was completed for the project in December 2004. A subsequent 2010 memorandum (including review and records search) was conducted to update and supplement the 2004 Initial Site Assessment, as needed. The purpose of this study was to determine whether the improvement activities associated with the

proposed project could be affected by any recorded or visible hazardous waste problems within and adjacent to the interchange right-of-way, and to recommend any additional Initial Site Assessment work, as appropriate.

The following was done:

- Performed a governmental records search to obtain a listing of properties or known incidents shown on federal and state databases for hazardous waste sites within the project area.
- Conducted a site visit to identify any visible exterior areas of potential contamination that might affect the proposed project.
- Examined soils, geotechnical, and groundwater data.

Physical Site Inspection

The physical site inspection did not reveal any evidence of spills or hazardous waste contamination within the project limits. Several uses are potentially associated with hazardous wastes or materials within the project area. A gas station is present but no evidence of hazardous spills or contamination was found.

Several issues that may warrant additional testing or study were found, including thermoplastic striping and cylindrical transformers. A portion of the proposed project may also require additional testing for potential hazards and include lands used for agricultural production. Additional studies for asbestos building materials may be needed on portions of buildings constructed before 1969. The status of the historic-era underground storage tank at the intersection of Kiernan Avenue and Sisk Road should also be determined.

Database and Regulatory Reviews

A search of environmental regulatory databases in 2004 and a subsequent update in 2010 were conducted for the proposed project and surrounding properties to determine whether documentation exists related to environmental incidents at the project site or surrounding properties.

The properties identified in the search were evaluated with respect to their potential to adversely affect the project. Three main criteria were used to evaluate whether the sites warranted further consideration: (1) proximity to the proposed project (less than 200 meters from edge of existing right-of-way); (2) groundwater flow from a site to the proposed project; and (3) surface-water flow or stormwater runoff from a site to the proposed project.

No national priority list or proposed national priority list, emergency response notification system, or record of decision, Toxic Substance Control Act, or superfund sites with consent agreement were identified within a 1-mile radius of the project.

One site in the 1-mile radius of the project has a record for an underground storage tank that is inactive but still onsite. Table 2.17 contains information from the database search.

Table 2.17 Hazardous Materials Databases

Address	Description
4648 Kiernan Avenue	This site is listed in a database used to track inactive underground storage tanks. Status—open but inactive.

Source: 2004 Initial Site Assessment and 2010 updated records search

An Asbestos and Lead-containing Paint Survey Report was completed in January 2011. It included a survey of the State Route 219 (Kiernan Avenue) Bridge for suspect asbestos-containing materials and lead-containing paint, collection of bulk samples, and submission of samples to laboratories for analysis. An Aerially-Deposited Lead Survey Report was also completed in January 2011. It included a survey of the interchange ramps and structures for aerially deposited lead, collection of bulk samples, and submission of samples to laboratories for analysis.

Environmental Consequences

A number of buildings built prior to 1969 occur within the existing and proposed right-of-way. Due to the age of these structures, there is a potential for presence of asbestos-containing materials and lead-based paint.

Surveys for asbestos-containing materials and lead-based paint were conducted in January 2011 for the State Route 219 (Kiernan Avenue) Bridge structure. Crysotile asbestos was detected in nonfriable asbestos sheet packing used as barrier rail shims on the bridge. National Emissions Standards for Hazardous Air Pollutants Regulations do not require that Category 1 (nonfriable/nonhazardous) materials such as nonfriable asbestos sheet packing be disposed of as hazardous waste. However, California Occupational Safety and Health Administration standards require that a licensed asbestos contractor perform the removal of any of these materials required during the bridge modification. Lead-based paint was also detected in sampling on

the bridge; however, these paints were below the threshold that require disposal as hazardous materials. California Occupational Safety and Health Administration standards require that a licensed lead contractor perform the removal of any of these materials required during the bridge modification.

A portion of the properties to be acquired extend through lands used for agricultural production, specifically at the State Route 219 (Kiernan Avenue)/Sisk Road intersection. Pesticides, fertilizers, and insecticides may be present within the soils.

In addition to the above land use sites, portions of the properties to be acquired also extend through lands used for light-industrial purposes. Light-industrial businesses include petroleum-products distribution, commercial recycling, and a diversion resources site. No spills or other evidence of hazardous waste contamination were seen within the project right-of-way.

Commercial land uses seen within the project limits include a petroleum distribution company (permitted to build a gas station), a car wash, and a fast-food restaurant. No spill or evidence of hazardous waste contamination was found. Acquisition of one of the petroleum distribution company (permitted to build a gas station) properties would be required for the proposed project. The full extent of the acquisition (partial or full) will not be known until the final design is complete for the preferred alternative (Alternative 1) in the year 2011.

Observations of potentially hazardous materials within the project limits included thermoplastic striping (roadway lines) and cylindrical transformers. Thermoplastic striping was observed along the traffic lanes of State Route 99 and State Route 219 (Kiernan Avenue). Cylindrical transformers were observed along the north side of State Route 219 (Kiernan Avenue) between State Route 99 and Kiernan Court. Cylindrical transformers could contain polychlorinated biphenyls and would need to be handled in conjunction with the appropriate standards and procedures for removal. No spills or other evidence of hazardous-waste contamination were observed.

Testing for aerially-deposited lead was done in January 2011. Waste classifications are evaluated based on the 90% Upper Confidence Limit of the lead content for the relevant excavation depths; this has historically been considered sufficient to satisfy a good faith effort by the Environmental Protection Agency. Risk assessment characterization is based on the 95% Upper Confidence Limit of the lead content in the waste for the relevant depths; this is in accordance with the Risk Assessment Guide for Superfund Volume 1 Documentation for Exposure Assessment. Based on

the testing for the proposed project, the first 1 foot of soil along the northbound on-ramp would be classified as hazardous waste. However, this soil would qualify as a Type Y-1 in accordance with the Department of Toxic Substances Control Act Variance and may be used safely onsite by placing the excavated soil under clean fill or pavement. Underlying soil below a depth of 1 foot would be classified as non-hazardous and may be reused onsite. All other testing from the remaining ramps and structures indicated results below the hazardous materials thresholds.

Review of agency databases did not identify any sites with potential to affect the project.

Other than those noted above during the site study of the project area, environmental areas of concern were not readily identified or apparent based on the scope of work performed in this project. Phase I Environmental Site Assessment findings, environmental conditions, or issues of concern, other than noted above, were not identified or indicated.

Avoidance, Minimization, and/or Mitigation Measures

- A Lead Compliance Plan is required regardless of the levels of lead in the soil. As noted above, the soils found on the northbound on-ramp from zero to 1 foot are classified as hazardous materials; however, they qualify for the Type Y-1 variance under the Department of Toxic Substances Control Act and may be encapsulated onsite under clean fill or pavement.
- Demolition of buildings built prior to 1969 would require an assessment of asbestos-containing building materials and lead-based paint. An asbestos investigation should be performed by an inspector certified by the Asbestos Hazardous Emergency Response Act under Toxic Substance Control Act Title II. Lead-based paint surveys should be conducted by an inspector certified by the California Occupational Safety and Health Administration under State of California rules and regulations. These surveys would be conducted by Caltrans Right-of-Way during acquisition and/or prior to building demolition. Asbestos-containing building materials and lead-based paint should be surveyed and abated (as needed) by using a contractor certified to perform such work.
- Reconstruction of the State Route 99/State Route 219 (Kiernan Avenue) Bridge would require the removal of asbestos-containing sheet-packing and the disturbance of lead-based paint. In the January 2011 surveys, it was determined that these materials would not need to be disposed of as hazardous waste.

However, a California Occupational Safety and Health Administration licensed asbestos and lead abatement contractor would be required to remove these materials prior to disposal into the landfill.

- Past land use studies suggest the potential for hazardous chemical contamination from organochlorine pesticides, organophosphorous pesticides, chlorinated herbicides, and heavy metals other than lead. These potential contaminants may be present within the properties to be acquired for right-of-way. Consequently, additional studies for these contaminants should be done on selected properties within the project area to minimize future liability. A risk assessment of the potential hazards (pesticides and heavy metal contamination) should be conducted during the design phase on properties to be acquired throughout the project area and along the railroad right-of-way.
- Acquisition of one of the petroleum distribution company (permitted to build a gas station) properties would be required for the proposed project. The full extent of the acquisition (partial or full) will not be known until the final design is complete for the preferred alternative (Alternative 1) in the year 2011. As part of the relocation assistance for the property, transportation of petroleum, petroleum by-products, petroleum equipment, and similar materials would be required. Permits from the California Department of Toxic Substances Control would be required before transporting these materials to another site.
- Cylindrical transformers are located within project right-of-way limits and may need to be relocated during the course of the project. These transformers could contain polychlorinated biphenyls that are known to be harmful to humans and the environment. The transformers would need to be handled using the appropriate standards and procedures for their removal. The proper utility company would be notified.
- Thermoplastic striping (roadway paint) removal activity would be conducted in compliance with all applicable laws and regulations such as the guidelines by the California Occupational Office of Safety and Health, San Joaquin Valley Unified Air Pollution Control District, and applicable best management practices. Standard special provisions would be used for removal of the traffic stripe.
- Prior to the start of any construction activities, including grading or ground disturbance, it is recommended that the presence or absence of the historic-era

underground storage tank at 4648 Kiernan Avenue be determined to avoid accidental rupture of the tank during earth-moving activities.

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: carbon monoxide, nitrogen dioxide, ozone, particulate matter, lead, and sulfur dioxide.

Under the 1990 Clean Air Act Amendments, the United States Department of Transportation cannot fund, authorize, or approve federal actions to support programs or projects that are not first found to conform to a state implementation plan for achieving the goals of the Clean Air Act. Conformity with the Clean Air Act takes place at the regional level and 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 in a region over a period of about 20 years. Based on the projects included in the regional transportation plan, an air quality model is used to determine whether or not those projects would conform to emission budgets or other tests showing that attainment requirements of the Clean Air Act are met.

If the conformity analysis is successful, the regional planning organization, such as the San Joaquin Valley Air Pollution Control District and the appropriate federal agencies, such as the Federal Highway Administration, determines if the regional transportation plan is in conformity with the state plan for achieving the goals of the Clean Air Act. Otherwise, the projects in the regional transportation plan must be changed until conformity is attained. If the design and scope of the proposed transportation projects are the same as described in the regional transportation plan,

then the proposed project meets regional conformity requirements for purposes of project-level analysis.

Conformity at the project level also requires “hot-spot” analysis if an area is “non-attainment” or “maintenance” area for carbon monoxide and/or particulate matter. A region is a “non-attainment” area if at one or more of the monitoring stations carbon dioxide or particulate-matter levels are too high. Areas that were previously designated as non-attainment areas but have recently met the standard are called “maintenance” areas.

In general, projects must not cause the carbon monoxide standard to be violated, and in non-attainment areas the 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 project vicinity, the project must include measures to reduce or eliminate the existing violation(s).

Affected Environment

An Air Quality Assessment Report and Air Quality Conformity Analysis Report were completed for the project in July 2010.

Meteorology

A region’s topographic features (flat land, mountains) have a direct correlation with air pollution flow and therefore are used to determine the boundary of air basins. The proposed project is in the San Joaquin Valley air basin that covers about 25,000 square miles and includes Fresno, Kings, Madera, Merced, San Joaquin, Stanislaus and Tulare counties and the western portion of Kern County. The San Joaquin Valley air basin boundaries are the Sierra Nevada Mountain Range in the east (8,000 to 14,000 feet in elevation), the Coast Ranges in the west (averaging 3,000 feet in elevation), and the Tehachapi Mountains in the south (6,000 to 8,000 feet in elevation).

The San Joaquin Valley is basically flat with a slight downward tilt to the northwest. The valley opens to the sea at the Carquinez Straits where the San Joaquin-Sacramento Delta empties into San Francisco Bay. An aerial view of the San Joaquin Valley air basin would resemble a bowl opening only to the north. These topographic features restrict air movement through and out of the basin.

Although marine air generally flows into the basin from the San Joaquin River Delta, the Coast Ranges hinder wind access into the San Joaquin Valley air basin from the

west. The Tehachapi Mountains prevent southerly passage of airflow, and the high Sierra Nevada Mountain Range is a significant barrier to the east. These topographic features result in weak airflow blocked vertically by high barometric pressure over the San Joaquin Valley air basin. As a result, the San Joaquin Valley air basin is highly susceptible to pollutant accumulation over time. Most of the surrounding mountains are above the normal 1,500- to 3,000-foot elevation of summer inversion layers.

The State Route 99/State Route 219 (Kiernan Avenue) Interchange Reconstruction Project was included in the regional emissions analysis done by the Stanislaus Council of Governments for the conforming 2011 Regional Transportation Plan. The project's design concept and scope have not changed significantly from what was analyzed in the Regional Transportation Plan. This analysis found that the Regional Transportation Plan and the individual projects contained in the plan are conforming projects. The projects would have air quality impacts consistent with those identified in the state plans for achieving the national ambient air quality standards.

Air Pollution Constituents

Pursuant to the federal Clean Air Act of 1970, the U.S. Environmental Protection Agency established national ambient air quality standards. The national ambient air quality standards were established for major pollutants termed "criteria" pollutants. Criteria pollutants are defined as those pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The national ambient air quality standard is two tiered: first, protect public health; and second, prevent degradation of the environment (e.g., impairment of visibility, damage to vegetation and property).

The criteria pollutants are ozone, carbon monoxide, suspended particulate matter (10 microns or less; and 2.5 microns or less), nitrogen dioxide, sulfur dioxide, and lead. The Environmental Protection Agency established national air quality standards for ground-level ozone and for fine particulate matter (particulate matter 2.5 microns or less in diameter) in 1997. The primary standards for these pollutants and the health effects from exposure to the criteria pollutants are found in Table 2.18.

Table 2.18 Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	State Standard	Federal Standard	Health and Atmospheric Effects	Typical Sources
Ozone (O ₃) ^a	1 hour 8 hours	0.09 <u>ppm</u> 0.070 <u>ppm</u>	– ^b 0.075 <u>ppm</u>	High concentrations irritate lungs. Long-term exposure may cause lung tissue damage. Long-term exposure damages plant materials and reduces crop productivity. Precursor organic compounds include a number of known toxic air contaminants.	Low-altitude ozone is almost entirely formed from reactive organic gases (ROG) and nitrogen oxides (NO _x) in the presence of sunlight and heat. Major sources include motor vehicles and other mobile sources, solvent evaporation, and industrial and other combustion processes. Biologically-produced ROG may also contribute.
Carbon Monoxide (CO)	1 hour 8 hours 8 hours (Lake Tahoe)	20 <u>ppm</u> 9.0 <u>ppm</u> ^c 6 <u>ppm</u>	35 <u>ppm</u> 9 <u>ppm</u> –	Asphyxiant. CO interferes with the transfer of oxygen to the blood and deprives sensitive tissues of oxygen.	Combustion sources, especially gasoline-powered engines and motor vehicles. CO is the traditional signature pollutant for on-road mobile sources at the local and neighborhood scale.
Respirable Particulate Matter (PM ₁₀) ^a	24 hours Annual	50 <u>µg/m³</u> 20 <u>µg/m³</u>	150 <u>µg/m³</u> –	Irritates eyes and respiratory tract. Decreases lung capacity. Associated with increased cancer and mortality. Contributes to haze and reduced visibility. Includes some toxic air contaminants. Many aerosol and solid compounds are part of PM ₁₀ .	Dust- and fume-producing industrial and agricultural operations; combustion smoke; atmospheric chemical reactions; construction and other dust-producing activities; unpaved road dust and re-entrained paved road dust; natural sources (wind-blown dust, ocean spray).
Fine Particulate Matter (PM _{2.5}) ^a	24 hours Annual	– 12 <u>µg/m³</u>	35 <u>µg/m³</u> 15 <u>µg/m³</u>	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and produces surface soiling. Most diesel exhaust particulate matter (a toxic air contaminant) is in the PM _{2.5} size range. Many aerosol and solid compounds are part of PM 2.5.	Combustion including motor vehicles, other mobile sources, and industrial activities; residential and agricultural burning; also formed through atmospheric chemical (including photochemical) reactions involving other pollutants including NO _x , sulfur oxides (SO _x), ammonia, and ROG.
Nitrogen Dioxide (NO ₂)	1 hour Annual	0.18 <u>ppm</u> 0.030 <u>ppm</u>	– 0.053 <u>ppm</u>	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown. Contributes to acid rain.	Motor vehicles and other mobile sources; refineries; industrial operations.

Pollutant	Averaging Time	State Standard	Federal Standard	Health and Atmospheric Effects	Typical Sources
Sulfur Dioxide (SO ₂)	1 hour 3 hours 24 hours Annual	0.25 ppm – 0.04 ppm –	– 0.5 ppm 0.14 ppm 0.030 ppm	Irritates respiratory tract; injures lung tissue. Can yellow plant leaves. Destructive to marble, iron, steel. Contributes to acid rain. Limits visibility.	Fuel combustion (especially coal and high-sulfur oil), chemical plants, sulfur recovery plants, metal processing.
Lead (Pb) ^d	Monthly Quarterly	1.5 µg/m ³ –	– 1.5 µg/m ³	Disturbs gastrointestinal system. Causes anemia, kidney disease, and neuromuscular and neurological dysfunction. Also considered a toxic air contaminant.	Primary: lead-based industrial process like battery production and smelters. Past: lead paint, leaded gasoline. Moderate to high levels of aerially deposited lead from gasoline may still be present in soils along major roads, and can be a problem if large amounts of soil are disturbed.

Sources: California Air Resources Board Ambient Air Quality Standards chart, 02/16/2010 (<http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>)

Sonoma-Marín Area Rail Transit Draft Air Pollutant Standards and Effects table, November 2005, page 3-52.

U.S. EPA and California Air Resources Board air toxics websites, 05/17/2006

Notes: ppm = parts per million; µg/m³ = micrograms per cubic meter

^a Annual PM10 NAAQS revoked October 2006; was 50 µg/m³. 24-hr. PM2.5 NAAQS tightened October 2006; was 65 µg/m³.

^b [12/22/2006 Federal court decision](#) may affect applicability of Federal 1-hour ozone standard. Prior to 6/2005, the 1-hour standard was 0.12 ppm. Case is still in litigation.

^c Rounding to an integer value is not allowed for the state 8-hour CO standard. A violation occurs at or above 9.05 ppm.

^d The ARB has identified lead, vinyl chloride, and the particulate matter fraction of diesel exhaust as toxic air contaminants. Diesel exhaust particulate matter is part of PM10 and, in larger proportion, PM2.5. Both the ARB and U.S. EPA have identified various organic compounds that are precursors to ozone and PM2.5 as toxic air contaminants. There is no threshold level of exposure for adverse health effects determined for toxic air contaminants, and control measures may apply at ambient concentrations below any criteria levels specified for these pollutants or the general categories of pollutants to which they belong.

Air quality monitoring stations are located throughout the nation and maintained by the local air districts and state air quality-regulating agencies. Data collected at permanent monitoring stations are used by the Environmental Protection Agency to identify regions as attainment or non-attainment, depending on whether the regions met the requirements stated in the primary national ambient air quality standards.

Non-attainment areas have additional restrictions as required by the Environmental Protection Agency. In addition, different classifications of attainment, such as marginal, moderate, serious, severe, and extreme are used to classify each air basin in the state on a pollutant-by-pollutant basis. The classifications are used as a foundation to create air quality management strategies to improve air quality and comply with

the national ambient air quality standards. The San Joaquin Valley air basin’s attainment status for each of the criteria pollutants is listed in Table 2.19.

Table 2.19 Attainment Status of Criteria Pollutants in the San Joaquin Valley Air Basin

Pollutant	Federal Standards	State Standards
Ozone - 1 hour	No Federal Standard	Non-attainment
Ozone - 8 hour	Non-attainment/Extreme ^a	Non-attainment
PM ₁₀	Attainment/Maintenance ^b	Non-attainment
PM _{2.5}	Non-attainment ^c	Non-attainment
CO – Modesto Urbanized Area	Attainment/ Maintenance	Attainment/Unclassified
NO ₂	Attainment/Unclassified	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment
Lead	*No Designation	Attainment
Hydrogen Sulfide	*No Federal Standard	Unclassified
Sulfates	*No Federal Standard	Attainment
Visibility Reducing Particles	*No Federal Standard	Unclassified

^a The San Joaquin Valley was reclassified from a Serious non-attainment area for the 8-hour ozone standard to Extreme effective June 4, 2010.

^b On September 25, 2008, EPA redesignated the San Joaquin Valley to attainment for the PM₁₀ National Ambient Air Quality Standard (NAAQS) and approved the PM₁₀ Maintenance Plan.

^c The San Joaquin Valley is designated non-attainment for the 1997 PM_{2.5} federal standards. EPA designations for the 2006 PM_{2.5} standards will be finalized in December 2009. The district has determined, as of the 2004-06 PM_{2.5} data, that the San Joaquin Valley has attained the 1997 24-Hour PM_{2.5} standard.

Source: San Joaquin Valley Air Pollution Control District, 2010. www.valleyair.org. July.

Local Air Quality

The project is within the jurisdiction of the San Joaquin Valley Unified Air Pollution Control District responsible for monitoring air quality at several locations within the San Joaquin Valley. The closest multi-pollutant monitoring site that has data available for most pollutants is in the city of Modesto. The city’s air quality trends represent the ambient air quality in the project area.

The two pollutants known to exceed the state standards in the project area are regional pollutants. Ozone and particulate matter 10 microns are regional emissions and are not determined by proximity to individual sources, but show a relative uniformity over a region. Thus, the data shown in Table 2.18 for these pollutants provide a good characterization of levels of these pollutants within the project site. The pollutants monitored are carbon monoxide, ozone, particulate matter less than 10 microns, particulate matter less than 2.5 microns, and nitrogen dioxide. Table 2.20

summarizes exceedances of state and federal standards at this monitoring site from 2007 through 2009.

The data shows that the monitor did not exceed state or federal particulate matter 10 microns 24-hour standards during the three-year period. The pollutant concentrations exceeded the federal particulate matter 2.5 microns 24-hour standard (98th percentile), as well as state particulate matter 2.5 microns annual standard, during the three-year period. Eight-hour ozone levels exceeded both state and federal standards in the years 2007, 2008 and 2009.

Table 2.20 shows that carbon monoxide and nitrogen dioxide levels are well below relevant state and federal standards. There are no sulfur dioxide monitors within the project area.

Table 2.20 Local Air-Quality Levels

Pollutant	Standard	2007	2008	2009
Carbon Monoxide				
Maximum 1-hour concentration (parts per million)		6.9	3.7	ND
Number of days exceeded:	State: > 20 parts per million	0	0	ND
	Federal: > 35 parts per million	0	0	ND
Maximum 8-hour concentration (parts per million)		3.16	1.94	2.41
Number of days exceeded:	State: > 9 parts per million	0	0	0
	Federal: > 9 parts per million	0	0	0
Ozone				
Maximum 1-hour concentration (parts per million)		0.100	0.127	0.112
Number of days exceeded:	State: > 0.09 parts per million	1	10	1
Maximum 8-hour concentration (parts per million)		0.097	0.081	0.106
Number of days exceeded:	State: > 0.07 parts per million	10	24	14
	Federal: > 0.08 parts per million	4	18	7
Coarse Particulates – Particulate Matter of 10 microns or less				
Maximum 24-hour concentration (micrograms per cubic meter)		83.0	111.1	65.6
Number of days exceeded:	State: > 50 micrograms per cubic meter	37.7	ND	36.4
	Federal: > 150 micrograms per cubic meter	0	0	0
Annual arithmetic average concentration (micrograms per cubic meter)		32	32	32
Exceeded for the year:	State: > 20 micrograms per cubic meter	Yes	Yes	Yes
	Federal: > 50 micrograms per cubic meter	No	No	No
Fine Particulates – Particulate Matter of 2.5 microns or less				
Maximum 24-hour concentration (micrograms per cubic meter)		64.0	88.3	59.3
98 th Percentile 24-hour concentration (micrograms per cubic meter)		57.4	53.9	54.5
Exceeded 98 th Percentile ¹ :	Federal: > 35 micrograms per cubic meter	Yes	Yes	Yes
State Annual Standard Design Value (micrograms per cubic meter)		16	16	16
Exceeded for the year:	State: > 12 micrograms per cubic meter	Yes	Yes	Yes
National Annual Standard Designation Value (micrograms per cubic meter)		14.6	15.3	14.7
Exceeded for the year:	Federal: > 15 micrograms per cubic meter	No	No	No
Nitrogen Dioxide				
Maximum 1-hour concentration (parts per million)		0.053	0.063	0.058
Number of days exceeded:	State: > 0.25 parts per million	0	0	0

Pollutant	Standard	2007	2008	2009
Annual arithmetic average concentration (parts per million)		0.012	0.012	0.012
Exceeded for the year:	Federal: > 0.053 parts per million	No	No	No
Sulfur Dioxide				
Maximum 1-hour concentration (parts per million)		No Data	No Data	No Data
Number of days exceeded:	State: > 0.25 parts per million	No Data	No Data	No Data
Maximum 3-hour concentration (parts per million)		No Data	No Data	No Data
Number of days exceeded:	Federal: > 0.5 parts per million	No Data	No Data	No Data
Maximum 24-hour concentration (parts per million)		No Data	No Data	No Data
Number of days exceeded:	State: > 0.04 parts per million	No Data	No Data	No Data
	Federal: > 0.14 parts per million	No Data	No Data	No Data
Annual arithmetic average concentration (parts per million)		No Data	No Data	No Data
Exceeded for the year:	Federal: > 0.030 parts per million	No Data	No Data	No Data

Source: ARB. <http://www.arb.ca.gov/adam/welcome.html>; EPA. <http://www.epa.gov/air/data/geosel.html>. 2010.

¹ Effective December 2006, EPA tightened the PM_{2.5} 24-hour standard from 65 to 35 µg/m³. New area designations will become effective in early 2010.

² ND = No data. There was insufficient (or no) data to determine the value. The closest SO₂ monitoring station is located in Fresno.

ppm = parts per million

µg/m³ = micrograms per cubic meter

Hot-Spot Analysis

The proposed project is within a non-attainment area for federal particulate matter 2.5-microns standards. Per 40 Code of Federal Regulations Part 93, analyses are required for conformity purposes.

Interagency consultation was completed in February 2011. With the proposed auxiliary lanes on State Route 99 and the improvements to State Route 219 (Kiernan Avenue), interagency consultation determined that the State Route 99/State Route 219 (Kiernan Avenue) Interchange Reconstruction Project is not a “Project of Air Quality Concern.” As part of this process, a public notice soliciting public comments on the project-level conformity analysis was done. Furthermore, an Air Quality Conformity Determination was issued by the Federal Highway Administration in March 2011 (Appendix F).

Mobile-Source Air Toxics

In addition to the criteria air pollutants for which there are national ambient air-quality standards, the Environmental Protection Agency also regulates air toxics. Most air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources (such as airplanes), area sources (such as dry cleaners), and stationary sources (such as factories or refineries).

Mobile-source air toxics are a subset of the 188 air toxics defined by the Clean Air Act. Mobile-source air toxics are compounds emitted from highway vehicles and non-road equipment. Some toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through an engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics also result from engine wear or from impurities in oil or gasoline.

The Environmental Protection Agency is the lead federal agency for administering the Clean Air Act and has certain responsibilities regarding the health effects of mobile-source air toxics. The Environmental Protection Agency issued a Final Rule on Controlling Emissions of Hazardous Air Pollutants from Mobile Sources (66 Federal Register 17229 [March 29, 2001]). The rule was issued under the authority in Section 202 of the Clean Air Act. In its rule, the Environmental Protection Agency examined the impacts of existing and newly announced mobile-source control programs, including the agency's reformulated gasoline program, national low-emission vehicle standards, Tier 2 motor vehicle emissions standards, gasoline sulfur-control requirements, proposed heavy-duty engine and vehicle standards, and on-highway diesel fuel sulfur-control requirements.

Evaluating the environmental and health impacts from mobile-source air toxics on a proposed highway project would involve several key elements, including emissions modeling, dispersion modeling to estimate ambient concentrations resulting from the estimated emissions, exposure modeling to estimate human exposure to the estimated concentrations, and then a final determination of health impacts based on the estimated exposure. Each of these steps is hindered by technical shortcomings or uncertain science that prevents a more complete determination of the mobile source air toxics health impacts of the proposed project.

Exposure to toxics has been a focus of a number of Environmental Protection Agency efforts. Most notably, the Environmental Protection Agency conducted the National Air Toxics Assessment to evaluate modeled estimates of human exposure applicable

to the county level. While not intended for use as a measure of or benchmark for local exposure, the modeled estimates in the National Air Toxics Assessment database best illustrate the levels of various toxics when totaled with national or state levels.

The Environmental Protection Agency is in the process of assessing the risks of various kinds of exposures to these pollutants. The Environmental Protection Agency Integrated Risk Information System is a database of effects to human health after exposure to various substances found in the environment (<http://www.epa.gov/iris>).

The following toxicity information for the six prioritized mobile-source air toxics was taken from the Integrated Risk Information System database and Weight of Evidence Characterization summaries. This information, from the Environmental Protection Agency's Integrated Risk Information System database, represents the Environmental Protection Agency's most current evaluations of the potential hazards and toxicology of these chemicals or mixtures.

- Benzene is characterized as a known human carcinogen (cancer causing).
- The potential carcinogenicity of acrolein cannot be determined because the existing data are inadequate for an assessment of human carcinogenic potential for either the oral or inhalation route of exposure.
- Formaldehyde is a probable human carcinogen, based on limited evidence in humans and sufficient evidence in animals.
- 1,3-butadiene is characterized as carcinogenic to humans by inhalation.
- Acetaldehyde is a probable human carcinogen based on increased incidence of nasal tumors in male and female rats and laryngeal (throat) tumors in male and female hamsters after inhalation exposure.
- Diesel exhaust is likely to be carcinogenic to humans by inhalation from environmental exposures. Diesel exhaust is the combination of diesel particulate matter and diesel-exhaust organic gases.
- Diesel exhaust also represents chronic respiratory effects, possibly the primary non-cancer hazard from mobile-source air toxics. Prolonged exposures to diesel exhaust may impair pulmonary (lung) function and could produce symptoms such as cough, phlegm, and chronic bronchitis. Exposure relationships have not been developed from these studies.

Because of the uncertainties outlined above, a quantitative assessment of the effects of air toxic emissions impacts on human health cannot be made at the project level. While available tools do allow reasonable prediction of relative emission changes between alternatives for larger projects, the amount of mobile-source air toxics emissions from the project alternatives and mobile-source air toxics concentrations or exposures created by each project alternative cannot be predicted with sufficient accuracy to be useful in estimating health impacts. The relevance of the unavailable or incomplete information makes it impossible to make a determination of whether any of the alternatives would have great adverse impacts on the human environment.

Environmental Consequences

Carbon Monoxide Hot-Spots

Caltrans has developed a Transportation Project-Level Carbon Monoxide Protocol for assessing carbon monoxide impacts of transportation projects. The procedures and guidelines comply with the following regulations without imposing additional requirements: Section 176(c) of the 1990 CAA Amendments, federal conformity rules, state and local adoptions of the federal conformity rules, the National Environmental Policy Act, and the California Environmental Quality Act requirements (California Code of Regulations Title 21 Section 1509.3[25]).

Two conformity requirement decision flow charts are provided in the Transportation Project-Level Carbon Monoxide Protocol. A summary discussion (as identified in Figure 1) of the Transportation Project-Level Carbon Monoxide Protocol used to determine the conformity requirements that apply to new projects is provided below:

- The proposed project is not exempt for emissions analyses or regional analysis based on the guidelines. The project is defined as regionally significant. Based on these facts, an assessment of local impacts was conducted that shows that the project does not worsen air quality because it does not significantly increase the percentage of vehicles operating in cold start mode by more than 5 percent.
- Additionally, traffic volumes on Kiernan Avenue do not change as a result of the project. The proposed project is an interchange reconstruction project that also does not increase the capacity or average daily traffic of State Route 99 (see Table 2.21). Also, there is no reduction in average speeds. The project alternatives generally increase average speeds and reduce delay.

Table 2.21 Average Daily Traffic on State Route 219 (Kiernan Avenue)

Model Year	Without Project	With Project	Project-Related Increase in ADT	Percent Increase
2015	41,129	41,129	N/A	N/A
2035	57,515	57,515	N/A	N/A

Source: State Route 99/State Route 219 Interchange Reconstruction Project Air Quality Conformity Study, July 2010.

- Furthermore, the project improves traffic flow. For uninterrupted roadway segments, higher average speeds (up to 50 miles per hour) should be regarded as an improvement in traffic flow. For intersection segments, higher average speeds and a decrease in average delay traffic should be considered an improvement in traffic flow.
- Lastly, as shown in the July 2010 Air Quality Analysis completed for the project, the project would improve the traffic flow by improving the level-of-service at key intersections in the project area. In addition, hours of systemwide delay are significantly reduced with both Alternatives 1 and 2 compared to the no-build scenario.

Based on the above criteria, the carbon dioxide Transportation Project-Level Carbon Monoxide Protocol indicates that further analysis is not necessary. Therefore, a detailed hot-spot analysis is not required.

Short-Term Construction Impacts

During construction, short-term degradation of air quality may occur due to the release of particulate emissions generated by excavation, grading, hauling, and other activities related to construction. Emissions from construction equipment also are anticipated and would include carbon monoxide, nitrogen oxides, volatile organic compounds, directly emitted particulate matter, and toxic air contaminants such as diesel exhaust particulate matter.

Construction is anticipated to be completed by 2015. The San Joaquin Valley Air Pollution Control District does not provide a model for calculating construction emissions. Construction emissions, however, were estimated for the project using the Sacramento Metropolitan Air Quality Management District’s Road Construction Emissions Model, Version 6.3.2, which can also be used for projects in the San Joaquin Valley. Construction-related emissions are presented in Table 2.22. The emissions presented below are based on the best information available at the time of calculations and assume that the schedule for all improvements is anticipated to begin

in 2013. Default equipment assumptions for the Road Construction Emissions Model were used in developing the emissions estimates. The estimates can be refined once final engineering has been completed for the project. As building the project is expected to take fewer than five years, construction-related emissions were not considered in the conformity analysis.

Table 2.22 Project Construction Emissions

Project Phases	ROG (lbs/day)	CO (lbs/day)	NO_x (lbs/day)	Total PM₁₀ (lbs/day)	Exhaust PM₁₀ (lbs/day)	Fugitive Dust PM₁₀ (lbs/day)
Grubbing/Land Clearing	3.6	15.1	29.0	6.2	1.2	5.0
Grading/Excavation	4.6	20.5	36.5	6.7	1.7	5.0
Drainage/Utilities/Sub-Grade	3.5	14.9	26.5	6.4	1.4	5.0
Paving	2.2	8.9	12.4	1.1	1.1	-
Maximum (pounds/day)	4.6	20.5	36.5	6.7	1.7	5.0
Total (tons/construction project)	0.5	2.2	3.8	0.8	0.2	0.6
Recommended thresholds	10	10	10	15	15	15

Source: State Route 99/State Route 219 Interchange Reconstruction Project Air Quality Study, July 2010.

ROG=reactive organic gases (pounds per day)

CO=carbon monoxide (pounds per day)

NO_x=nitrogen oxides (pounds per day)

PM₁₀=particulate matter, 10 micron diameter (pounds per day)

As noted in the table, construction emissions would not exceed the recommended thresholds.

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 particulate matter of 2.5 microns or less and 10 microns or less in diameter, and small amounts of carbon monoxide, sulfur dioxide, nitrogen oxides, 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 the mud dries. Particulate matter emissions of 10 microns or less would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. Particulate matter emissions of 10 microns or less would depend on soil moisture, silt content of the soil, wind speed, and the

number of equipment being operated. Larger dust particles would settle near the source, while finer particles would be dispersed over greater distances from the construction site.

Long-Term Impacts

The proposed project is locally defined as regionally important because the project would increase the number of lanes on State Route 219 (Kiernan Avenue). The project is a regionally important project in the Stanislaus Council of Governments Air Quality Conformity Analysis for the 2011 Regional Transportation Plan.

The project, however, is not considered a source for increased air pollution, meeting the conditions set forth in the above discussion.

Mobile-Source Air Toxics

The proposed project would reduce delay and either improve the level-of-service or maintain the level-of-service at the same level as without the project. For this reason, due to improved level-of-service, mobile-source air toxics are expected to be similar or lower than emissions in the study area, relative to the no-build alternative (see Table 2.23). On a regional basis, the Environmental Protection Agency’s vehicle and fuel regulations, coupled with fleet turnover, would, over time, cause substantial reductions in mobile-source air-toxics levels.

Table 2.23 Mobile-Source Air Toxics Peak-Hour Emissions

	Existing	2035 No-Build Alternative	2035 Alternative 1	2035 Alternative 2
Diesel PM	207.2 grams	121.3 grams	71.6 grams	74.9 grams
Formaldehyde	84.5 grams	65.5 grams	43.9 grams	45.9 grams
1,3-Butadiene	9.1 grams	4.2 grams	4.4 grams	4.6 grams
Benzene	52.1 grams	27.2 grams	26.3 grams	27.5 grams
Acrolein	1.9 grams	0.8 grams	0.9 grams	1.0 grams
Acetaldehyde	35.6 grams	30.0 grams	18.8 grams	19.7 grams

Source: State Route 99/State Route 219 Interchange Reconstruction Project Air Quality Study, July 2010.

Avoidance, Minimization, and/or Mitigation Measures

Construction Impacts

Compliance with Caltrans’ Dust Control Plan would minimize effects to air quality from construction emissions:

- The construction contractor, to reduce fugitive-dust emissions, would adhere to the requirements of San Joaquin Valley Air Pollution Control District Regulation VIII.
- The construction contractor should comply with Caltrans' Standard Specifications Section 7-1.01F and Section 10 of Caltrans' Standard Specifications.
- The construction contractor should comply with San Joaquin Valley Air Pollution Control District Rule 9510 and submit an air-impact assessment application if it is determined that the construction-related emissions exceed the established thresholds.
- The construction contractor should limit traffic speeds on unpaved roads to 15 miles per hour.
- The construction contractor should install sandbags or other erosion-control measures to prevent silt runoff to public roadways from sites with a slope greater than 1 percent.
- The construction contractor should install wheel washers for all exiting trucks, or wash-off all trucks and equipment leaving the site.
- The construction contractor should install windbreaks at windward side(s) of the construction area.
- The construction contractor should suspend excavation and grading activity when winds exceed 20 miles per hour. (Regardless of wind speed, an owner/operator must comply with Regulation VIII's 20 percent opacity limitation.)
- The construction contractor should limit area excavation, grading, and other construction activity at any one time.
- The construction contractor should properly and routinely maintain all construction equipment as recommended by the manufacturer manuals to control exhaust emissions.
- The construction contractor, to reduce emissions associated with idling engines, should shut down equipment not in use for extended periods.

Long-Term Impacts

There are no mitigation measures required, as the build alternatives would not result in substantial long-term air-quality impacts.

2.2.5 Noise and Vibration

Regulatory Setting

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

California Environmental Quality Act

The California Environmental Quality Act requires a strictly no-build versus build analysis to assess whether a proposed project would have a noise impact. If a proposed project is determined to have a major noise impact under the California Environmental Quality Act, then the act dictates that mitigation measures must be incorporated into the project unless such measures are not feasible. The rest of this section will focus on the National Environmental Policy Act and 23 Code of Federal Regulations 772, noise analysis. Please see Chapter 3 for further information on noise analysis under the California Environmental Quality Act.

National Environmental Policy Act and 23 Code of Federal Regulations 772

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

The regulations contain noise abatement criteria that are used to determine when a noise impact would occur. The noise abatement criteria differ depending on the type of land use under analysis. For example, the criterion for residences (67 decibels) is lower than the criterion for commercial areas (72 decibels).

Table 2.24 lists the noise abatement criteria for use in the National Environmental Policy Act and 23 Code of Federal Regulations 772 analyses. Table 2.25 shows the noise levels of typical activities.

Table 2.24 Activity Categories and Noise Abatement Criteria

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

Source: Caltrans Traffic Noise Analysis Manual, 1998

A-weighted decibels are adjusted to approximate the way humans perceive sound. Equivalent Continuous Noise Level is the steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual time-varying levels over 1 hour.

Table 2.25 Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Jet Fly-over at 300m (1000 ft)	110	Rock Band
Gas Lawn Mower at 1 m (3 ft)	100	
Diesel Truck at 15 m (50 ft), at 80 km (50 mph)	90	Food Blender at 1 m (3 ft)
Noisy Urban Area, Daytime	80	Garbage Disposal at 1 m (3 ft)
Gas Lawn Mower, 30 m (100 ft) Commercial Area	70	Vacuum Cleaner at 3 m (10 ft)
Heavy Traffic at 90 m (300 ft)	60	Normal Speech at 1 m (3 ft)
Quiet Urban Daytime	50	Large Business Office
Quiet Urban Nighttime	40	Dishwasher Next Room
Quiet Suburban Nighttime	30	Theater, Large Conference Room (Background)
Quiet Rural Nighttime	20	Library
	10	Bedroom at Night, Concert Hall (Background)
	0	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

In accordance with Caltrans' Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, October 1998, a noise impact occurs when the future noise level with the project results in a substantial increase in noise level (defined as a 12-decibel or more increase), or when the future noise level with the project approaches or exceeds the noise abatement criteria. Approaching the noise abatement criteria is defined as within 1 decibel of the noise abatement criteria.

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

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

Caltrans would also be required to consider the conclusions in the Noise Abatement Decision Report. The report compares the noise abatement benefits with the various social and environmental issues created by the project and the abatement.

Affected Environment

The following analysis is based on the Noise Study Report completed in March 2010 and the Noise Abatement Decision Report completed in October 2010.

The existing noise environment in the project area is dominated by traffic noise from vehicular traffic on State Route 99. Noise monitors were placed in strategic locations around the project area to obtain the existing noise levels. The results indicated that existing ambient-noise levels at modeled sensitive receptors along the project alignment range from 69.6 dBA L_{eq} to 77.6 dBA L_{eq} .

Land uses were also assessed to identify where noise impacts would potentially occur. Single-family and hotel residences in the project area were identified and classified under activity-category B, with a noise abatement criteria of 67 decibels for exterior areas. Existing commercial and industrial areas in the project area were identified as activity-category C uses with a noise abatement criterion of 72 decibels for exterior areas. For the purposes of the noise study, sensitive receptors were numbered R1 through R33. No soundwalls currently exist along the project site.

Environmental Consequences National Environmental Policy Act

Noise levels for the existing conditions, no-build alternative, build alternatives, and attenuation levels are presented in Tables 2.26 and 2.27 as prescribed under 23 Code of Federal Regulations 772 and the Traffic Noise Analysis Protocol. To meet the 20-year planning horizon required to show noise levels 20 years after construction, project noise levels were calculated for 2035.

Some noise-level increase from the corresponding existing noise level would result from operation of the completed project. Of the 33 receptor locations that were modeled in the project area, 10 receptors, by 2035, would approach or exceed the noise abatement criteria for build-alternative traffic conditions. Noise abatement measures, therefore, must be considered.

Soundwalls were studied for each affected sensitive receptor location. At each location, six soundwall heights were analyzed: 6, 8, 10, 12, 14 and 16 feet. A minimum noise reduction of 5 dBA must be achieved at the affected receivers for the proposed noise abatement measure to be considered feasible. Table 2.27 shows the soundwall heights required to achieve the 5-dBA reduction that complies with Section 3 of the noise protocol.

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

Table 2.26 Predicted Traffic Noise Levels (dBA L_{eq})

Receptor I.D.	Location	Type of Land Use	NAC	Existing Noise Level	Future (2035) No-Build Noise Levels	Alt 1 (2035) Noise Levels	Change from Existing Level	Change from No-Build Level	Alt 2 (2035) Noise Levels	Change from Existing Level	Change from No-Build Level
R1	4300 Bangs Avenue	Hotel	B(67)	64	65	65	1	0	65	1	0
R2	Hope Lane	Residential	B(67)	74 ¹	74	75	1	1	75	1	1
R3	Salida Boulevard	Residential	B(67)	69	70	71	2	1	70	1	0
R4	4730 Salida Boulevard	Hotel	B(67)	60	62	62	2	0	65	5	3
R5	4921 Sisk Road	Hotel	B(67)	60	61	61	1	0	60	0	-1
R6	4909 Sisk Road	Hotel	B(67)	63	65	64	1	-1	64	1	-1
R7	Trowbridge Lane	Residential	B(67)	64	66	68	4	2	68	4	2
R8	Trowbridge Lane	Residential	B(67)	65	65	66	1	1	66	1	1
R9	Trowbridge Lane	Residential	B(67)	65	65	65	0	0	65	0	0
R10	Trowbridge Lane	Residential	B(67)	65	65	65	0	0	65	0	0
R11	Trowbridge Lane	Residential	B(67)	65	65	66	1	1	66	1	1
R12	Tamara Way	Residential	B(67)	68	68	68	0	0	69	1	1
R13	Tamara Way	Residential	B(67)	69	69	70	1	1	70	1	1
R14	Kimberly Court	Residential	B(67)	63	63	63	0	0	63	0	0
R15	Kimberly Court	Residential	B(67)	63	64	64	1	0	64	1	0
R16	Littleton Way	Residential	B(67)	60	61	61	1	0	61	1	0
R17	Littleton Way	Residential	B(67)	60	61	61	1	0	61	1	0
R18	Littleton Way	Residential	B(67)	60	60	60	0	0	60	0	0
R19	Littleton Way	Residential	B(67)	58	58	59	1	1	58	0	0
R20	Littleton Way	Residential	B(67)	58	59	59	1	0	59	1	0
R21	Littleton Way	Residential	B(67)	61	61	61	0	0	61	0	0
R22	Littleton Way	Residential	B(67)	59	60	60	1	0	60	1	0
R23	Avante Lane	Residential	B(67)	60	61	61	1	0	61	1	0
R24	Cimarron Court	Residential	B(67)	61	61	61	0	0	61	0	0
R25	Kimberly Court	Residential	B(67)	65	65	66	1	1	66	1	1
R26	Tamara Way	Residential	B(67)	63	64	64	1	0	64	1	0
R27	Durley Drive	Residential	B(67)	61	62	62	1	0	63	2	1
R28	Trowbridge Lane	Residential	B(67)	61	62	62	1	0	62	1	0
R29	Trowbridge Lane	Residential	B(67)	60	62	62	2	0	62	2	0
R30	Trowbridge Lane	Residential	B(67)	61	63	63	2	0	63	2	0
R31	Trowbridge Lane	Residential	B(67)	62	64	65	3	1	65	3	1
R32	Aylesbury Way	Residential	B(67)	67	71	72	5	1	72	5	1
R33	Wessex Lane	Residential	B(67)	67	70	70	3	0	69	2	-1

Source: Kiernan Avenue State Route 219/State Route 99 Interchange Reconstruction Project Noise Study Report, 2010.

¹ Numbers in **bold** indicate noise levels that approach or exceed the NAC. dBA = A-weighted decibel L_{eq} = Equivalent Sound Level NAC = Noise-Abatement Criteria

Table 2.27 Summary of Abatement Information

Barrier	Height (feet)	Acoustically Feasible? Yes/No	Number of Benefited Residences	Total Reasonable Allowance (\$)	Estimated Construction Cost (\$)	Reasonable? Yes/No
Alternative 1						
SB1	6	Yes	3	105,000	290,640	No
	8	Yes	3	105,000	387,520	No
	10	Yes	3	111,000	484,400	No
	12	Yes	3	117,000	581,280	No
	14	Yes	3	117,000	678,160	No
	16	Yes	3	117,000	775,040	No
SB2	16	Yes	3	99,000	961,920	No
SB3	8	Yes	5	185,000	308,800	No
	10	Yes	10	390,000	386,000	Yes
	12	Yes	13	507,000	463,200	Yes
	14	Yes	13	507,000	540,400	No
	16	Yes	19	779,000	617,600	Yes
Alternative 2						
SB1	10	Yes	1	37,000	523,200	No
	12	Yes	1	39,000	627,840	No
	14	Yes	1	39,000	732,480	No
	16	Yes	3	117,000	837,120	No
SB2	16	Yes	3	99,000	961,920	No
SB3	8	Yes	3	111,000	308,800	No
	10	Yes	10	390,000	386,000	Yes
	12	Yes	13	507,000	463,200	Yes
	14	Yes	13	507,000	540,000	No
	16	Yes	13	533,000	617,600	No

SB=sound barrier (soundwall)

Construction Noise

Two types of short-term noise impacts would occur during project construction: noise from construction crew commutes to and from the site and noise from the construction work itself.

The noise from construction crew commutes and the transport of construction equipment and materials to the project site would incrementally raise noise levels on access roads leading to the site. Heavy equipment for grading and construction activities would be moved to the site, remain for the duration of each construction phase, and not add to the daily traffic volume in the project vicinity. A high single-event noise exposure potential at a maximum level of 87 dBA L_{max} from trucks passing within 50 feet would also exist. However, the projected construction traffic would be minimal when compared to existing traffic volumes on State Route 99 and other affected streets, meaning the project's associated long-term noise level change

would not be perceptible. Therefore, short-term construction-related worker commutes and equipment-transport noise would be less than substantial.

Noise is generated during excavation, grading, and roadway construction. Construction is performed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated and, therefore, the noise levels along the project alignment as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase.

The closest noise sensitive receptors to roadway improvement construction areas would be the residential land uses on Aylesbury Way, represented by modeled receptor locations R7, R32, and R33. These land uses are located within 50 feet of potential construction areas. Therefore, these sensitive receptor locations may be subject to short-term noise reaching 91 dBA, the maximum sound level generated by construction activities along the project alignment.

Environmental Consequences California Environmental Quality Act Noise Analysis

The noise analysis for the proposed project was prepared according to the Caltrans Traffic Noise Analysis Protocol. According to the noise analysis, 29 sensitive noise receptors were identified within the project limits.

None of the sensitive noise receptors identified for the project were predicted to have a noise increase of 12 decibels or more; therefore, construction of the proposed project would not result in a significant noise impact under the California Environmental Quality Act.

Avoidance, Minimization, and/or Noise Abatement Measures National Environmental Policy Act

The reasonableness of a soundwall was determined by comparing the estimated cost of building the soundwall against the total reasonable allowance. The total reasonable allowance was determined based on the number of benefited residences multiplied by the reasonable allowance per residence. Construction cost estimates were based on standard masonry block construction. If the estimated soundwall construction cost exceeded the total reasonable allowance, the soundwall was determined not to be

reasonable. However, if the estimated soundwall construction cost was within the total reasonable allowance, the soundwall was determined to be reasonable.

Based on completed studies, Caltrans intends to reduce noise by placing soundwalls at locations shown in Figures 2-3a, 2-3b, 2-4a, and 2-4b. Soundwall lengths and average heights are shown in Table 2.26. Preliminary design data indicate that soundwalls would reduce noise levels by 5 dBA for residences. Costs for soundwalls are shown in Table 2.27. If during final design, conditions substantially change, noise reduction efforts may not be necessary. The final decision for noise abatement would be made upon completion of the project design and the public involvement processes.

- **Alt1 SB3.** This sound barrier (soundwall) was analyzed for Alternative 1 and would be located along the southern property line of the residential properties that border Kiernan Court. This sound barrier would also wrap around to the north along the eastern property line of the residential properties and would, with implementation of the project, border Sisk Road. This sound barrier is modeled to protect the existing residential properties represented by receptors R7, R8, R31, R32, and R33.
- **Alt2 SB3.** This sound barrier (soundwall) was analyzed for Alternative 2 and would be built along the northwest project limits that borders Kiernan Court, State Route 219 (Kiernan Avenue), and Sisk Road. This sound barrier is modeled to protect the existing residential properties represented by receptors R7, R8, R32, and R33.

Secondary Impacts of Abatement Measures

Based on the analysis of the Noise Abatement Decision Report, all secondary effects of implementation, including biological impacts, water quality, visual impacts, hazardous waste, and cultural resources impacts of the recommended abatement measures were determined to be not substantial. Therefore, no adverse secondary effects are anticipated from the construction of soundwalls as part of the proposed project.



SOURCE: Kiernan Avenue/State Route 99 Interchange Reconstruction NSR, 2010

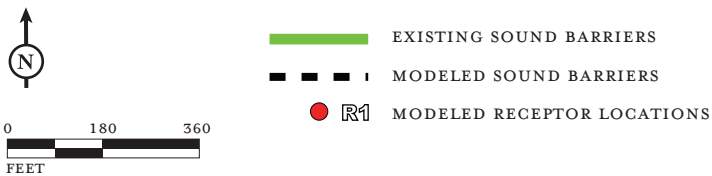
Figure 2-3a

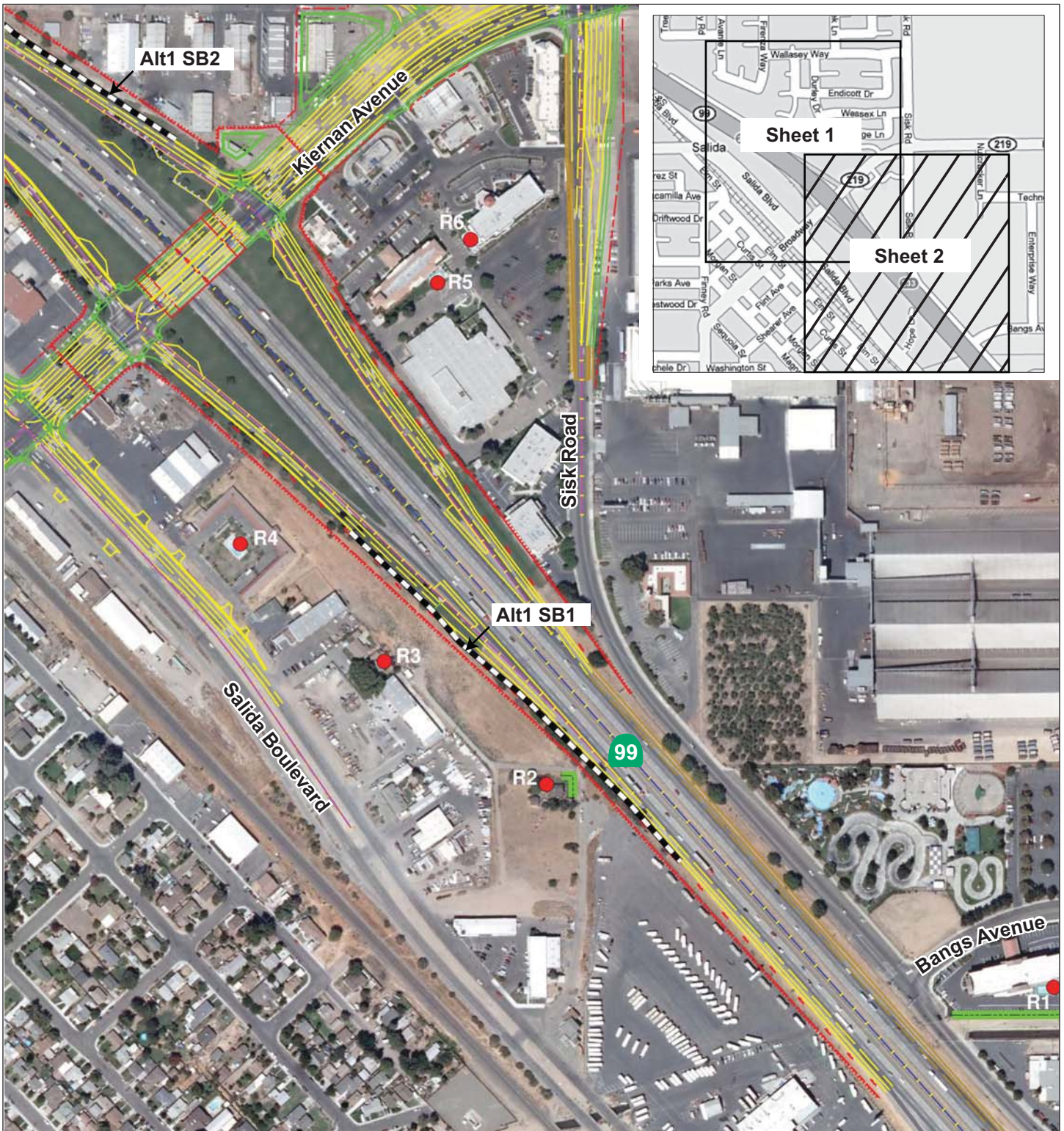
Alternative 1 Modeled Sound Barrier and Receptor Locations

EA # 10-0L330

10-STA-99-PM R21.9/R23.1

10-STA-219-PM 0.0/0.3





SOURCE: Kiernan Avenue/State Route 99 Interchange Reconstruction NSR, 2010

Figure 2-3b

Alternative 1 Modeled Sound Barrier and Receptor Locations

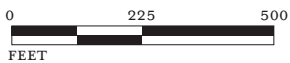
EA # 10-0L330

10-STA-99-PM R21.9/R23.1

10-STA-219-PM 0.0/0.3



- EXISTING SOUND BARRIERS
- MODELED SOUND BARRIERS
- R1 MODELED RECEPTOR LOCATIONS





SOURCE: Kiernan Avenue/State Route 99 Interchange Reconstruction NSR, 2010

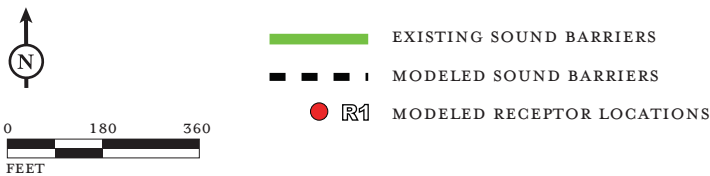
Figure 2-4a

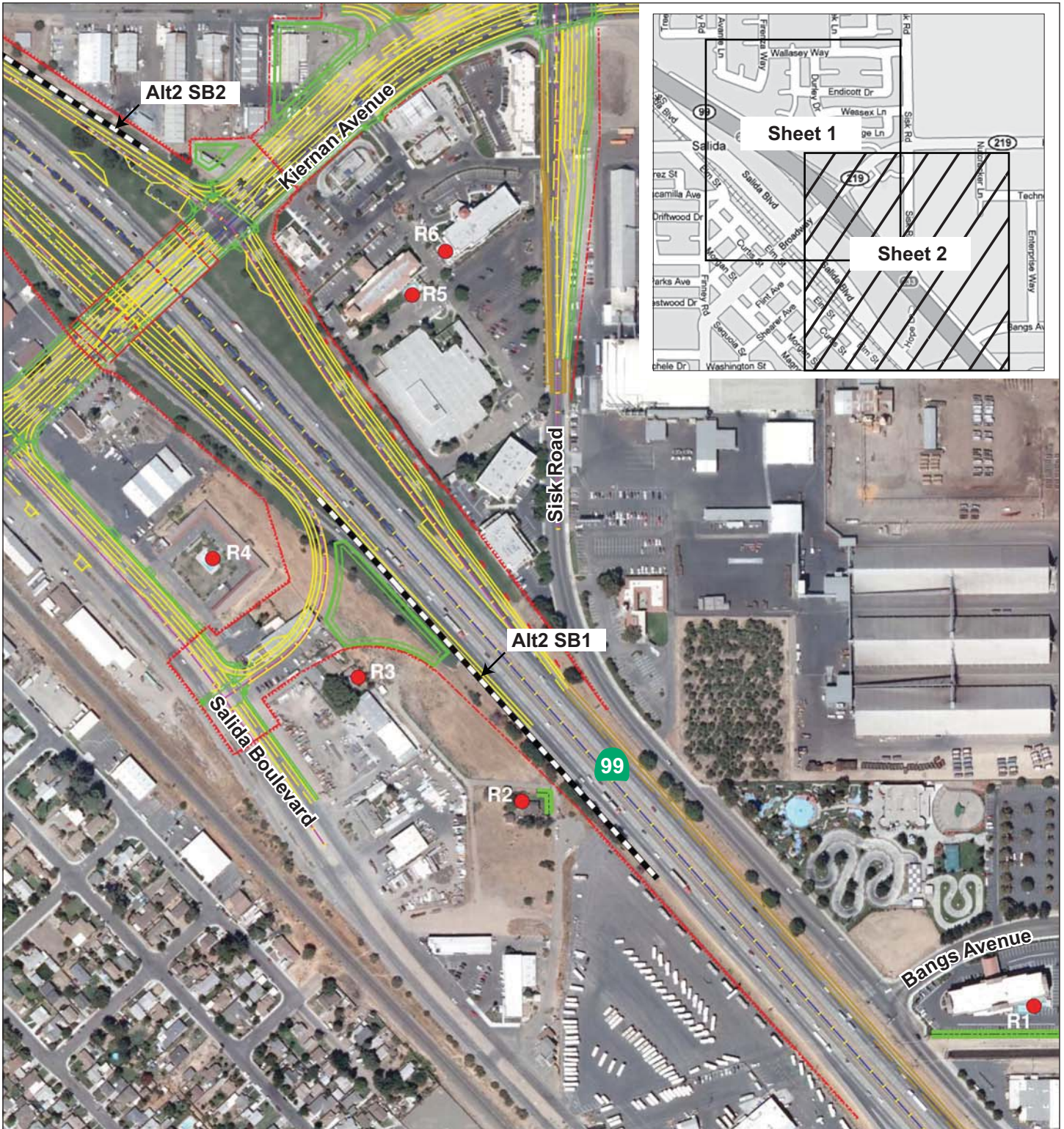
Alternative 2 Modeled Sound Barrier and Receptor Locations

EA # 10-0L330

10-STA-99-PM R21.9/R23.1

10-STA-219-PM 0.0/0.3





SOURCE: Kiernan Avenue/State Route 99 Interchange Reconstruction NSR, 2010

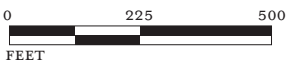
Figure 2-4b

Alternative 2 Modeled Sound Barrier and Receptor Locations

EA # 10-0L330

10-STA-99-PM R21.9/R23.1

10-STA-219-PM 0.0/0.3



- EXISTING SOUND BARRIERS
- - - - - MODELED SOUND BARRIERS
- R1 MODELED RECEPTOR LOCATIONS

Construction Noise Abatement

During construction of the project, noise from building activities may intermittently be heard in the area. Construction equipment can generate noise levels ranging from 70 to 90 decibels at a distance of 50 feet. Noise produced by construction equipment would be reduced over distance at a rate of about 6 decibels per doubling of distance.

Construction noise is regulated by Caltrans Standard Specifications Section 7-1.0011, “Sound Control Requirements,” which states that noise levels generated during building would comply with applicable local, state, and federal regulations, and that all equipment would be fitted with adequate mufflers according to the manufacturer’s specifications.

No adverse noise effects from construction are anticipated because construction would be done in accordance with Caltrans Standard Specifications Section 7-1.011 and applicable local noise standards. Construction noise would be short term, intermittent, and overshadowed by local traffic noise. Further, implementing the following measures would minimize the temporary noise effects during building activities:

- All equipment would have sound-control devices that are no less effective than those provided on the original equipment. No equipment would have an unmuffled exhaust.
- As directed by Caltrans, the contractor would implement appropriate additional noise mitigation measures, including changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources.

Avoidance, Minimization, and/or Noise Abatement Measures California Environmental Quality Act

There are no school classrooms located in the project vicinity. Therefore, the noise abatement criteria do not apply under California Environmental Quality Act impact determination.

2.3 Biological Environment

2.3.1 Animal Species

This section discusses potential impacts and permit requirements associated with wildlife listed or proposed for listing under the state or federal Endangered Species Act. Special-status animal species are discussed here, including California Department of Fish and Game fully protected species and species of special concern, and the U.S. Fish and Wildlife Service or National Oceanic and Atmospheric Fisheries Service candidate species.

Regulatory Setting

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
- Sections 4150 and 4152 of the Fish and Game Code

Affected Environment

A Natural Environment Study (Minimal Impacts) was completed for the project in November 2010.

Most of the project study area consists of disturbed/ruderal (weedy) and developed areas that generally do not provide high-quality habitat for resident wildlife species. However, some species do inhabit these communities. A small amount of agricultural land, composed of orchards and row/field crops, also exists within the biological study area. The following species are potentially present in the project study area:

Nesting Birds

The nests of all native bird species are protected under the federal Migratory Bird Treaty Act and California Fish and Game Code. The white-tailed kite (*Elanus*

leucurus) is a state fully-protected species with potential to occur in the biological study area. White-tailed kites nest and forage in various habitats associated with oak savannah, annual grasslands, and agricultural lands. White-tailed kites typically build stick nests in the tops of trees near foraging grounds. They forage for small rodents over grassland and open savanna and are commonly seen foraging along freeway medians and edges.

Bats

Some special-status bats may occur in the biological study area. Greater western mastiff bats (*Eumops perotis californicus*) and pallid bats (*Antrozous pallidus*) are both California species of special concern.

Bats are nocturnal and are found in a variety of habitats. Many species forage for insects over water, shrubs, or meadows. Some species have separate roosts for day, night, maternal and hibernation use. Other species may use the same roost for more than one purpose. Bats roost in a variety of crevices, cavities, and protected sites. Roosting sites may include bridges, buildings, caves, and trees.

Greater western mastiff bats, which feed primarily on moths, are found in broad, open areas in a variety of habitats such as deserts, floodplains, chaparral, open forests, grasslands, and agricultural areas. Roosts are high above the ground, allowing a clear drop of about 9 feet. Cliffs are the preferred roost site, though crevices in boulders and buildings are also used.

Pallid bats use a variety of habitats at low elevations. They often forage on the ground while preying on large insects and spiders. Caves, crevices, hollow trees and buildings are used for day roosts. Night roosts may be in more open sites.

Burrowing Owl

There are records of burrowing owl (*Athene cunicularia*) in Stanislaus County within 10 miles of the biological study area. Though it has no federal status, the burrowing owl is a California species of concern.

Burrowing owls occur in warmer valleys; open, dry grasslands; deserts; and scrublands that support populations of California ground squirrels. Burrowing owls nest below ground, using the abandoned burrows of other species, most commonly ground squirrel burrows, and feed on insects and small mammals.

Habitat

The agricultural land (orchard and row/field crops) in the biological study area provides foraging habitat for migratory birds. Permanent impacts would occur to the plant communities eaten by migratory birds.

Environmental Consequences

Nesting Birds

If construction occurs during the breeding season (February 28 through October 1), construction activities could directly affect nesting birds by removing trees that support active nests. Prolonged loud construction noise could also disturb nesting birds, resulting in nesting failure in trees that are not removed.

Bats

Some bats forage widely, and there is potential for bats to pass through the biological study area as they hunt. Construction activities could temporarily affect bats foraging in the biological study area. Though bats may occasionally forage in the biological study area, it is not unique or important habitat for bats. The biological study area does not provide suitable roosting habitat for bats, nor was any bat sign (feces, urine staining) present under the overcrossing. Better foraging habitat is available over nearby fields, canals, and the Stanislaus River. The project, therefore, would not affect roosting bats.

Burrowing Owl

No mammal burrows are present in the biological study area. The vegetation is mainly ornamental and unsuitable; areas free of ornamental vegetation are highly disturbed and managed for weed control. There is no habitat for, or signs of, burrowing owls in the project area. It is highly unlikely that this species would occur in the project area.

Avoidance, Minimization, and/or Mitigation Measures

Nesting Birds

- All clearing and grubbing should be done during the non-nesting season (between October 1 and February 28). If this is not possible, a qualified biologist should do a survey for nesting birds in the biological study area. The survey must take place a maximum of 14 days prior to the start of construction. If nesting birds are found within the biological study area, a setback of 100 feet from nesting areas would be established and maintained during the nesting season. This setback applies whenever construction or other ground-disturbing activities must begin during the

nesting season in the presence of nests, which are known to be occupied. Setbacks would be marked by brightly colored temporary fencing and maintained until construction is complete or the young have fledged, as determined by a qualified biologist.

Alternatively, the setback (if required) may be reduced if a qualified biologist is present to monitor the nest(s) when construction begins. If the biologist determines nesting is not affected by construction activities with the reduced setback, work can proceed. If it is determined that construction activities are adversely affecting the nesting birds with the reduced setback, all construction within 100 feet of a nest would be halted until the biologist can establish an appropriate setback.

With implementation of the minimization measures described above, such as pre-construction surveys and buffers, impacts to nesting birds would be avoided.

2.3.2 Invasive Species

Regulatory Setting

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

Affected Environment

A Natural Environment Study (Minimal Impact) was completed for the project in November 2010. Several areas within the State Route 99/State Route 219 (Kiernan Avenue) interchange are dominated by nonnative annual grasses and ruderal (weedy) forbs and are more open than nearby areas planted with ornamentals. Dominant species include rye, barley, black mustard, bromes, yellow star thistle, and wild oats.

Environmental Consequences

Vegetation in the biological study area is highly disturbed, and it is highly unlikely that project-related activities would further degrade the vegetative composition in the

biological study area. However, construction-related activities would potentially promote the distribution of invasive plant species to offsite areas through ground disturbance and movement of earth-moving equipment.

Avoidance, Minimization, and/or Mitigation Measures

To avoid the distribution of invasive species to offsite areas during project construction, contract specifications should include, at a minimum, the following measures:

- All earth-moving equipment to be used during project construction should be thoroughly cleaned before arriving on the project site.
- All seeding equipment such as hydro-seed trucks should be thoroughly rinsed at least three times prior to arriving at the project site and the beginning of seeding work.
- To avoid spreading any nonnative invasive species already existing onsite to offsite areas, all equipment should be thoroughly cleaned before leaving the site.

In compliance with Executive Order 13112 on invasive species and subsequent guidance from the Federal Highway Administration, the landscaping and erosion control included in the project would not use species listed as noxious weeds. In areas of particular sensitivity, extra precautions would be taken if invasive species were found in or adjacent to the construction areas. Precautions include the inspection and cleaning of construction equipment. Eradication strategies would be used should an invasive species be discovered.

2.4 Cumulative Impacts

Cumulative impacts result from past, present, and reasonably foreseeable future actions combined with the potential impacts of this project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from impacts that individually are minor but collectively can create substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive types of agricultural cultivation.

These land use activities can degrade habitat and species diversity through displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. Land use activities can also contribute to potential community impacts such as changes in community character, traffic patterns, housing availability, and employment.

California Environmental Quality Act Guidelines Section 15130 describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts under the California Environmental Quality Act can be found in Section 15355 of the California Environmental Quality Act Guidelines. A definition of cumulative impacts under the National Environmental Policy Act can be found in 40 Code of Federal Regulations, Section 1508.7 of the Council on Environmental Quality regulations.

Impacts to project-specific resources have been discussed throughout this chapter. Section 2.1 (Human Environment) described potential environmental impacts in land use, growth, farmlands/timberlands, community impacts, utilities, and transportation. Section 2.2 (Physical Environmental) addressed potential impacts to visual/aesthetics, cultural resources, hydrology and floodplains, water quality, geology, paleontology, hazardous materials, air quality, and noise. Section 2.3 (Biological Environment) described potential impacts to natural communities, wetlands, plant species, animal species, and invasive species.

Based on these analyses, it was determined that the following resources may be cumulatively affected by the proposed project:

- Farmlands/Timberlands
- Visual/Aesthetics
- Water Quality
- Air Quality
- Noise

Global climate change was not included in this cumulative analysis. Climate change is, by its very nature, a cumulative impact and is discussed separately in Section 2.5.

Affected Environment

Table 2.28 explains each of the above resources and the area studied for the purpose of the cumulative impact analysis.

Table 2.28 Resource Area Considered for Cumulative Impact Analysis

Resource	Area Studied
Farmlands/Timberlands	State Route 219 (Kiernan Avenue) corridor (and adjacent developments) from Salida Road to Sisk Road, as well as the State Route 99 corridor near State Route 219 (Kiernan Avenue)
Visual/Aesthetics	State Route 219 (Kiernan Avenue) corridor (and adjacent developments) from Salida Road to Sisk Road, as well as the State Route 99 corridor near State Route 219 (Kiernan Avenue)
Water Quality	Middle San Joaquin River Watershed
Air Quality	San Joaquin Valley Air Pollution Control District regulatory boundary
Noise	State Route 219 (Kiernan Avenue) corridor (and adjacent developments) from Salida Road to Sisk Road

Table 2.29 summarizes the proposed development that may contribute to cumulative impacts for the proposed project. This table includes recently built projects and reasonably foreseeable future projects that would potentially affect the same resources as the proposed project. This list was compiled from various sources, including the 2011 Regional Transportation Plan, Stanislaus County Planning Department, and local knowledge of the project area.

To be considered for inclusion into Table 2.29, projects must be “reasonably foreseeable.” Although there is no uniform established standard, projects would be considered “reasonably foreseeable” if they met the following criteria:

- Have applications pending with a government agency
- Are included in an agency’s budget or capital improvement program
- Are foreseeable future phases of existing projects

Table 2.29 Projects Evaluated for Cumulative Impact Analysis

Project	Location	Project Description	Percent Built
Hammett Road Interchange Widening/Reconstruction	Stanislaus County	Widen from 4 to 6 lanes	0% Built
State Route 219 (Kiernan Avenue) from State Route 99 to Stoddard Road	Stanislaus County	Widen from 4 to 6 lanes	0% Built
Sisk Road from State Route 219 (Kiernan Avenue) to Pirrone Road	Stanislaus County	Widen from 2 to 4 lanes	0% Built
Sisk Road from Pelandale Avenue to State Route 219 (Kiernan Avenue)	Stanislaus County	Widen from 2 to 4 lanes	0% Built
Stoddard Road from State Route 219 (Kiernan Avenue) to Ladd Road	Stanislaus County	Widen from 2 to 4 lanes	0% Built

Environmental Consequences

Farmlands/Timberlands

Developments adjacent to the proposed project from Sisk Road to Salida Boulevard, as well as the State Route 99 corridor, were used to evaluate the potential for substantial cumulative effects. The farmland impact analysis concluded that the proposed project would result in no substantial effects, under the California Environmental Quality Act, to prime farmland or farmland of statewide importance or regional importance. In addition, no impacts to any property held under a Williamson Act contract were found. As such, the proposed project would not, cumulatively, affect farmlands.

Visual/Aesthetics

Developments next to the proposed project from Sisk Road to Salida Boulevard, as well as the State Route 99 corridor, were used to evaluate the potential for substantial cumulative effects. The proposed project would not substantially degrade the total visual experience for the highway user along the route. The regional landscape currently consists of an urbanized environment with similar features to those proposed for the project. Additionally, the proposed improvements are added to an already existing interchange infrastructure. Though the existing view quality would be affected by this change, the view would not be substantially degraded by the

proposed project. With mitigation measures, the proposed project would not, cumulatively, affect visual/aesthetic resources.

Water Quality

The San Joaquin River watershed was used as the study area for the cumulative water quality impact analysis. The water quality impact analysis concluded that the proposed project would not substantially affect water quality. All projects listed in Table 2.27 have the potential to affect water quality both on a temporary basis during construction and on a permanent basis. The addition of impervious surfaces (pavement) introduced by most of those projects would increase the amount of storm-water runoff as well as introduce new sources of pollutants. The pollutants, if transported to surface water bodies, could degrade water quality. With mitigation measures, the proposed project would not, cumulatively, affect water quality.

Air Quality

Developments within the jurisdiction of the San Joaquin Valley Air Pollution Control District were studied for cumulative impacts to air quality. For particulate matter of 10 microns or less, a pollutant, a 1-mile radius around the proposed project was used as the study area. A project is not eligible for federal funds unless it is found to be in conformance with the applicable State Implementation Plan. The proposed project is included in the State Transportation Improvement Program that is considered to be in conformance with the State Implementation Plan. With mitigation measures, the proposed project would not, cumulatively, affect air quality.

Noise

Developments adjacent to the proposed project from Sisk Road to Salida Boulevard, as well as the State Route 99 corridor, were used to evaluate the potential for substantial cumulative effects. The noise impact analysis concluded that the proposed project would result in no substantial impacts, under California Environmental Quality Act, to sensitive noise receptors along the proposed project corridor after mitigation was implemented. This mitigation is primarily through the construction of new soundwalls (sound barriers) along the interchange roadway corridor or along roadways adjacent to the interchange. With mitigation measures, the proposed project would not, cumulatively, increase noise levels.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation is required.

2.5 Climate Change under the California Environmental Quality Act

Regulatory Setting

While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change, the efforts devoted to greenhouse gas emissions reduction and climate change research and policy have increased dramatically in recent years. These efforts are primarily concerned with greenhouse gas emissions related to human activities that produce carbon dioxide, methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (s, s, s, 2 –tetrafluoroethane), and HFC-152a (difluoroethane).

In 2002, with the passage of Assembly Bill 1493, California launched an innovative and proactive approach to dealing with greenhouse gas emissions and climate change at the state level. Assembly Bill 1493 requires the California Air Resources Board to develop and implement regulations to reduce automobile and light truck greenhouse gas emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009 model year; however, to enact the standards, California needed a waiver from the Environmental Protection Agency. The waiver was denied by Environmental Protection Agency in December 2007 and efforts to overturn the decision had been unsuccessful (see *California v. Environmental Protection Agency*, 9th Cir. Jul. 25, 2008, No. 08-70011).

On January 26, 2009, however, it was announced that Environmental Protection Agency would reconsider its decision regarding the denial of California's waiver. On May 18, 2009, President Barack Obama announced the enactment of a 35.5-miles-per-gallon fuel economy standard for automobiles and light-duty trucks, which will take effect in 2012. On June 30, 2009, the Environmental Protection Agency granted California the waiver. California is expected to enforce its standards for 2009 to 2011 and then look to the federal government to implement equivalent standards for 2012 to 2016. Granting of the waiver would also allow California to implement even stronger standards in the future. The state is expected to start developing new standards for the post-2016 model years later this year.

On June 1, 2005, then-Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of the executive order is to reduce California's greenhouse gas emissions to the following levels: 1) 2000 levels by 2010; 2) 1990 levels by the 2020;

and 3) 80 percent below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32, the Global Warming Solutions Act of 2006. Assembly Bill 32 set the same overall greenhouse gas emissions reduction goals while further mandating that the California Air Resources Board create a plan that includes market mechanisms and implement rules to achieve “real, quantifiable, cost-effective reductions of greenhouse gases.” Executive Order S-20-06 further directed state agencies to begin implementing Assembly Bill 32, including the recommendations made by the state’s climate action team.

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

Climate change and greenhouse gas emissions reduction are also a concern at the federal level; however, at this time, no legislation or regulations have been enacted specifically addressing greenhouse gas emissions reductions and climate change. California, in conjunction with several environmental organizations and several other states, sued to force the Environmental Protection Agency to regulate greenhouse gas as a pollutant under the Clean Air Act (*Massachusetts vs. Environmental Protection Agency et al.*, 549 U.S. 497 (2007)). The court ruled that greenhouse gas does fit within the Clean Air Act’s definition of a pollutant, and that the Environmental Protection Agency does have the authority to regulate greenhouse gas emissions. Despite the Supreme Court ruling, there are no announced federal regulations to date limiting greenhouse gas emissions.

On December 7, 2009, the Environmental Protection Agency administrator signed two distinct findings regarding greenhouse gases under Section 202(a) of the Clean Air Act:

- **Endangerment Finding:** The administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases—carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆)—in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution that threatens public health and welfare.

Although these findings did not themselves impose any requirements on industry or other entities, this action was a prerequisite to finalizing the Environmental Protection Agency's *Proposed Greenhouse Gas Emission Standards for Light-Duty Vehicles*, published on September 15, 2009¹. On May 7, 2010, the final *Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards* was published in the Federal Register².

The final combined Environmental Protection Agency and National Highway Traffic Safety Administration standards that make up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles covering model years 2012 through 2016. They require these vehicles to meet an estimated combined-average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards would cut greenhouse gas emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012 to 2016).

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

¹ <http://www.epa.gov/climatechange/endangerment.html>

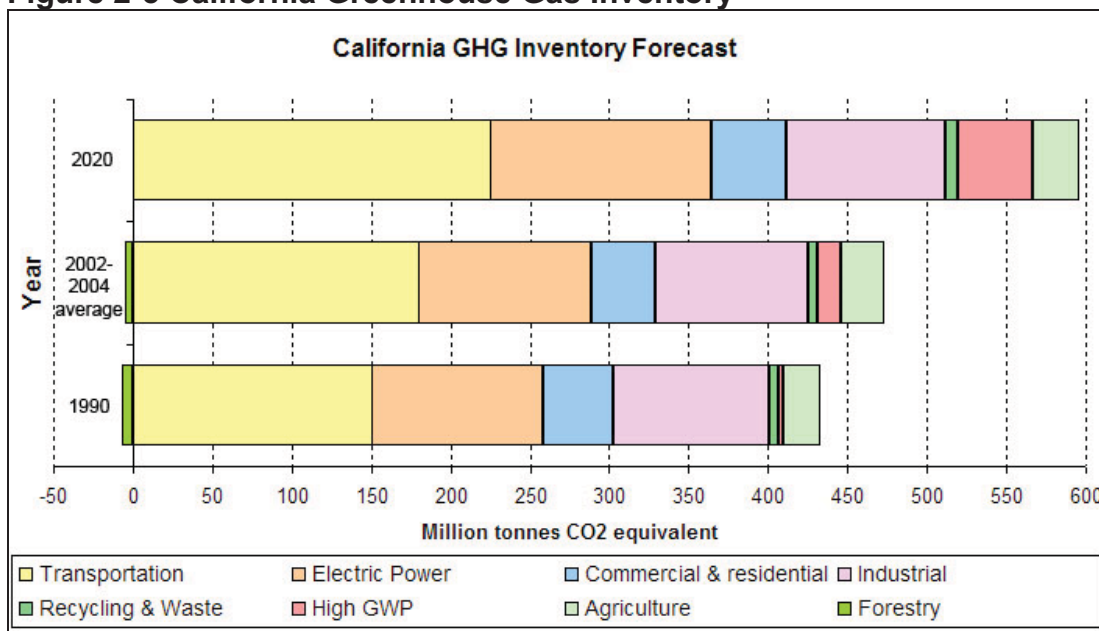
²

<http://www.regulations.gov/search/Regs/contentStreamer?objectId=0900006480a5e7f1&disposition=attachment&contentType=pdf>

As part of its supporting documentation for the draft scoping plan, the California Air Resources Board recently released an updated version of the greenhouse gas emissions inventory for California (June 26, 2008). Figure 2-5, a graph from that update, shows the total greenhouse gas emissions for California for 1990, 2002 to 2004 average emissions, and 2020 average emissions, and 2020 projected emissions if no action is taken.

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

Figure 2-5 California Greenhouse Gas Inventory



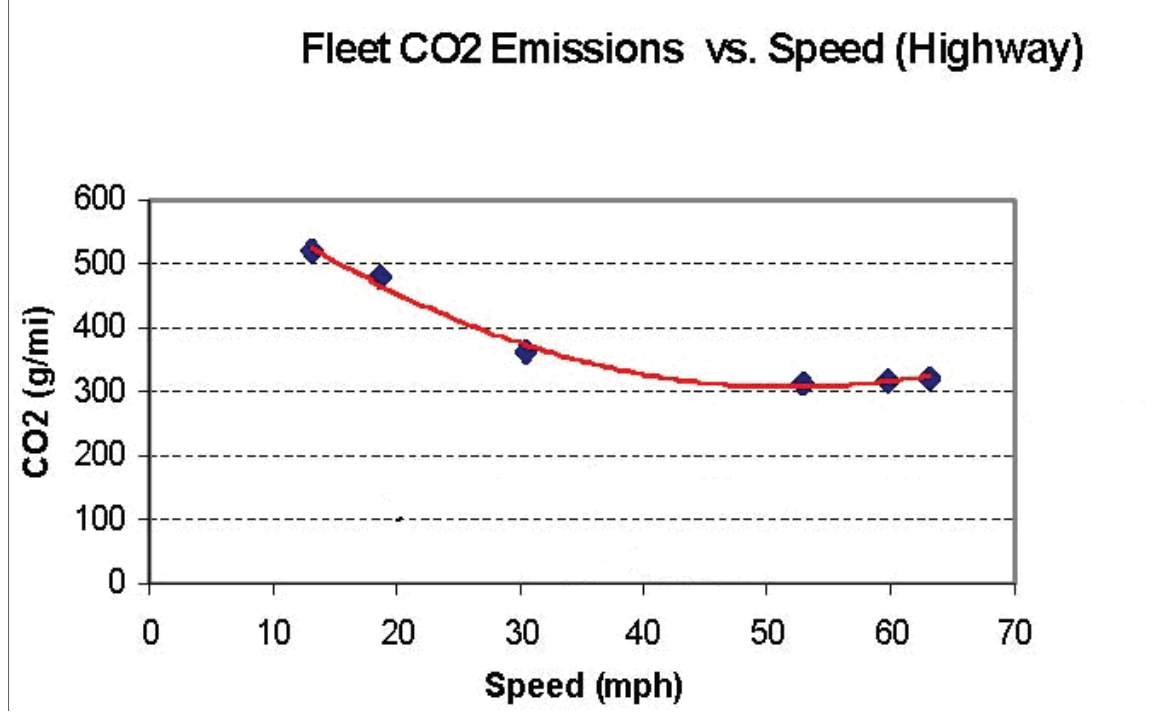
Taken from: <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>

Project Analysis

One of the main strategies in Caltrans’ Climate Action Program is to reduce greenhouse gas emissions, making 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 to 25 miles per hour) and speeds over 55 miles per hour as shown in Figure 2-6. Relieving congestion by enhancing operations and improving

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

Figure 2-6 Fleet CO2 Emissions vs. Speed (Highway)



The purpose of the project is to reduce traffic congestion and delay at the State Route 99/State Route 219 (Kiernan Avenue) interchange to accommodate existing and future travel demands. The improvements associated with the project are expected to reduce existing and future delays and extensive backing up of vehicles due to congestion, which if not addressed, would lead to inefficient fuel consumption, deteriorating air quality, and unacceptable level-of-service conditions.

The improvements proposed for traffic congestion relief include the following:

- Increase interchange capacity by widening State Route 219 (Kiernan Avenue) from four lanes to eight lanes by adding two lanes in each direction (eastbound and westbound)
- Improve traffic operations
- Add auxiliary lanes to State Route 99
- Reconfigure ramps

While there is predicted to be an increase in vehicle-miles-traveled and number of vehicles in the future when compared to existing conditions, the anticipated increase is a result of population increase in existing and planned residential and commercial development in the area. The project would improve the level-of-service at the interchange and reduce overall delay, but is not expected to increase the number of vehicles or vehicle-miles-traveled in the area compared to the future no-build alternative condition.

As shown in Tables 2.30 and 2.31, compared to the no-build alternative condition, the project is expected to result in a reduction of vehicle hours of delay, fuel consumption (Table 2.32), and carbon dioxide emissions (Table 2.33) in 2015 and 2035.

Table 2.30 Intersection Analysis—2015 Conditions

Intersection	Traffic Control	Peak Hour	No-Build Alternative		Alternative 1		Alternative 2	
			Control Delay	LOS	Control Delay	LOS	Control Delay	LOS
1. Salida Boulevard/ Kiernan Avenue	Signal ¹	AM	39	D	18	B	25	C
		PM	>100	F	24	C	24	C
2. SR-99 southbound ramps/Kiernan Avenue	Signal ¹	AM	>100	F	21	C	2a = 7 2b = 11 ³	2a = A 2b = B
		PM	>100	F	23	C	2a = 8 2b = 9 ³	2a = A 2b = A
3. SR-99 northbound ramps/Kiernan Avenue	Signal ¹	AM	>100	F	13	B	15	B
		PM	30	C	15	B	13	B
4. Indian Ridge Lane/Kiernan Avenue	SSSC ²	AM	4 (37)	A (E)	3 (52)	A (F)	3 (42)	A (E)
		PM	4 (35)	A (D)	2 (25)	A (C)	2 (24)	A (C)
5. Kiernan Court/ Kiernan Avenue	SSSC ²	AM	3 (19)	A (C)	2 (5)	A (A)	3 (9)	A (A)
		PM	24 (>100)	C (F)	3 (12)	A (B)	4 (22)	A (C)
6. Sisk Road/ Kiernan Avenue	Signal ¹	AM	52	D	28	C	31	C
		PM	>100	F	36	D	43	D
Systemwide Vehicle Hours of Delay ⁴		AM	299		74		82	
		PM	599		105		107	

Notes: Results based on SimTraffic simulation of 10 runs.

1. Signalized intersection level of service based on weighted average control delay per vehicle, according to the *2000 Highway Capacity Manual*.
2. Side-street stop intersection level of service based on weighted average control delay per vehicle and worst approach control delay per vehicle, according to the *2000 Highway Capacity Manual* in the notation: average (worst approach).
3. Under Alternative 2, the southbound ramps are split into two intersections. The off-ramp intersection (2a) is presented first followed by the on-ramp intersection (2b).
4. The vehicle delay was computed by adding up each intersection's vehicle delay, which is computed by multiplying the demand volume by the intersection delay (measured in vehicle-hours).

Source: State Route 99/Kiernan Avenue Interchange Improvements Traffic Operations Report June 2009.

Table 2.31 Intersection Analysis—2035 Conditions

Intersection	Traffic Control	Peak Hour	No-Build Alternative		Alternative 1		Alternative 2	
			Control Delay	LOS	Control Delay	LOS	Control Delay	LOS
1. Salida Boulevard/ Kiernan Avenue	Signal ¹	AM	>100	F	23	C	27	C
		PM	>100	F	28	C	25	C
2. SR-99 southbound ramps/Kiernan Avenue	Signal ¹	AM	>100	F	20	C	2a = 17 2b = 10 ³	2a = B 2b = B
		PM	63	E	19	B	2a = 7 2b = 10 ³	2a = A 2b = A
3. SR-99 northbound ramps/Kiernan Avenue	Signal ¹	AM	>100	F	21	C	26	C
		PM	98	F	19	B	30	C
4. Indian Ridge Lane/Kiernan Avenue	SSSC ²	AM	12 (>100)	B (F)	42 (>100)	E (F)	36 (>100)	E (F)
		PM	6 (21)	A (C)	2 (30)	A (D)	3 (39)	A (F)
5. Kiernan Court/ Kiernan Avenue	SSSC ²	AM	6 (84)	A (F)	2 (5)	A (A)	2 (9)	A (A)
		PM	63 (>100)	F (F)	3 (19)	A (C)	6 (50)	A (E)
6. Sisk Road/ Kiernan Avenue	Signal ¹	AM	73	E	30	C	30	C
		PM	>100	F	33	C	35	C
Systemwide Vehicle Hours of Delay ⁴		AM	929		145		150	
		PM	1,738		125		138	

Notes: Results based on SimTraffic simulation of 10 runs.

1. Signalized intersection level of service based on weighted average control delay per vehicle, according to the *2000 Highway Capacity Manual*.
2. Side-street stop intersection level of service based on weighted average control delay per vehicle and worst approach control delay per vehicle, according to the *2000 Highway Capacity Manual* in the notation: average (worst approach).
3. Under Alternative 2, the southbound ramps are split into two intersections. The off-ramp intersection (2a) is presented first followed by the on-ramp intersection (2b).
4. The vehicle delay was computed by adding up each intersection's vehicle delay, which is computed by multiplying the demand volume by the intersection delay (measured in vehicle-hours).

Source: State Route 99/Kiernan Avenue Interchange Improvements Traffic Operations Report June 2009.

Table 2.32 Fuel Consumption by Alternative

	No-Build Alternative	Alternative 1	Alternative 2
2015 Morning Peak	170.3 gallons	123.0 gallons	133.6 gallons
2015 Afternoon Peak	245.1 gallons	133.6 gallons	174.5 gallons
2035 Morning Peak	336.4 gallons	169.3 gallons	178.3 gallons
2035 Afternoon Peak	464.8 gallons	169.2 gallons	195.8 gallons

Notes: Fuel consumption is the sum of fuel consumed by all vehicles within the network, measured in gallons.

Source: Fehr & Peers. 2010.

Table 2.33 Carbon Dioxide Emissions by Alternative

	No-Build Alternative	Alternative 1	Alternative 2
2015 Morning Peak	1.52 metric tons	1.10 metric tons	1.19 metric tons
2015 Afternoon Peak	2.19 metric tons	1.19 metric tons	1.56 metric tons
2035 Morning Peak	3.01 metric tons	1.51 metric tons	1.59 metric tons
2035 Afternoon Peak	4.16 metric tons	1.51 metric tons	1.75 metric tons

Source: Fehr & Peers. 2010.

It is important to note that the carbon dioxide emission numbers are useful only for a comparison between alternatives. The numbers are not necessarily an accurate reflection of what the true carbon dioxide emissions would be because carbon dioxide emissions are dependent on other factors that are not part of the model: fuel mix (model emission rates are only for direct engine-out carbon-dioxide emissions, not a full-fuel cycle; fuel-cycle emission rates can vary dramatically depending on the amount of additives, such as ethanol, and the source of the fuel components), rate of acceleration, and the aerodynamics and efficiency of the vehicles.

CEQA Conclusion

Caltrans does not anticipate any increase in overall greenhouse gas emissions with the project when compared to the future no-build alternative. Nonetheless, Caltrans is taking further measures to help reduce energy consumption and greenhouse gas emissions. These measures are outlined in the following section. It is Caltrans’ determination that in the absence of further regulatory or scientific information

related to greenhouse gas emissions and California Environmental Quality Act significance, it is too speculative to make a determination regarding the project's direct impact and its contribution on the cumulative scale to climate change.

Construction Emissions

Construction greenhouse gas emissions include emissions from material processing, construction equipment, and idling traffic due to construction. These emissions would be produced at different levels throughout the construction phase. Emissions can be reduced through innovations in plans and specifications and by using better traffic management during construction phases. In addition, with innovations such as longer pavement life, improved traffic-management plans, and changes in materials, the greenhouse gas emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events.

Construction-related greenhouse gas emissions are expected to occur with the project. Material processing, construction equipment, and idling traffic due to construction would produce emissions. These emissions would be produced at different levels throughout the construction phase. Emissions can be reduced by using measures such as idling restrictions, plans and specifications, and better traffic management during construction phases

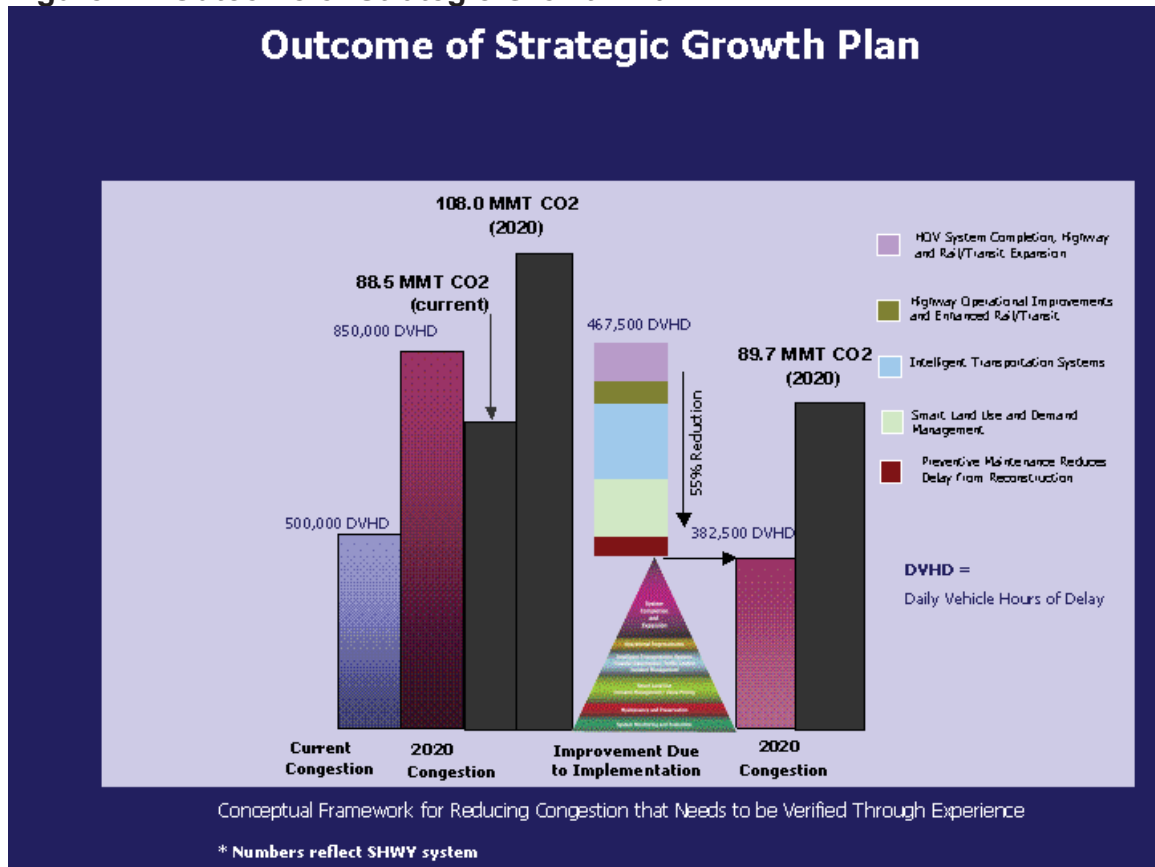
Assembly Bill 32 Compliance

Caltrans continues to be actively involved on the governor's climate action team as the Air Resources Board works to implement Assembly Bill 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 that is updated each year. Then-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. The infrastructure-improvement program includes \$107 billion in transportation funding during the next decade.

As shown Figure 2-7, the California Strategic Growth Plan targets a substantial decrease in traffic congestion below today's level and a corresponding reduction in greenhouse gas emissions. The California 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 California 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 2-7 Outcome of Strategic Growth Plan



As part of the Caltrans Climate Action Program, Caltrans is supporting efforts to reduce vehicle-miles-traveled by planning and using 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 fuel economy in new light- and heavy-duty trucks and cars. It is important to note, however, that the United States Environmental Protection Agency and Air Resources Board hold the control of the fuel economy standards.

Lastly, the use of alternative fuels is also being considered; Caltrans is participating in funding for alternative fuel research at the University of California at Davis. Table 2.34 provided below summarizes statewide efforts that Caltrans is implementing to reduce greenhouse gas emissions. For more information about each strategy, please see the Climate Action Program at Caltrans (December 2006).

To the extent that it is applicable or feasible for the project and through coordination with the project development team, the following measures would also be included in the project to reduce the greenhouse gas emissions and potential climate change impacts from the project. Sample measures:

1. Caltrans and the California Highway Patrol are working with regional agencies to use intelligent transportation systems to help manage the efficiency of the existing highway system. It is commonly referred to as electronics, communications, or information processing used alone or in combination to improve the efficiency or safety of a surface transportation system.
2. In addition, the county provides ridesharing services and park-and-ride facilities to help manage the growing demand for highway capacity.
3. Landscaping reduces surface warming and through photosynthesis decreases carbon dioxide. The project proposes planting in the intersection slopes and drainage channels; seeding in areas adjacent to frontage roads; and planting a variety of different-sized plant material and scattered skyline trees where appropriate without obstructing the view of the mountains. Caltrans has committed to planting a minimum of 40 trees. These trees would help offset any potential carbon dioxide emissions increase. Based on a formula from the Canadian Tree Foundation¹, it is anticipated that the planted trees would offset between 7 to 10 tons of carbon dioxide per year.

¹ Canadian Tree Foundation at http://www.tcf-fca.ca/publications/pdf/english_reduceco2.pdf. For rural areas, the formula is: # of trees/360 x survival rate = tones of carbon/year removed for each of 80 years.

Table 2.34 Climate Change Strategies

Strategy	Program	Partnership	Method/Process	Estimated Carbon Dioxide Savings (MMT)	
				2010	2020
Smart Land Use	IGR	Lead: Caltrans Partner: Local Governments	Review and seek to mitigate development proposals	Not Estimated	Not Estimated
	Planning Grants	Lead: Caltrans Partner: Local and regional agencies and other stakeholders	Competitive selection process	Not Estimated	Not Estimated
	Regional Plans and Blueprint Planning	Lead: Regional Agencies Partner: Caltrans	Regional plans and application process	0.975	7.8
Operational Improvements and Intelligent Trans. System (ITS) Deployment	Strategic Growth Plan	Lead: Caltrans Partner: Regions	State Intelligent Transportation System; Congestion Management Plan	.007	2.17
Mainstream Energy and greenhouse gas into Plans and Projects	Office of Policy Analysis and Research; Division of Env. Analysis	Interdepartmental effort	Policy establishment, guidelines, technical assistance	Not Estimated	Not Estimated
Educational and Information Program	Office of Policy Analysis & Research	Partner: Interdepartmental, Cal Environmental Protection Agency, California Air Resources Board, CEC	Analytical report, data collection, publication, workshops, outreach	Not Estimated	Not Estimated
Fleet Greening and 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 > 50% fly ash/slag mix	1.2 .36	3.6
Goods Movement	Office of Goods Movement	Cal Environmental Protection Agency, California Air Resources Board, BT&H, MPOs	Goods Movement Action Plan	Not Estimated	Not Estimated
Total				2.72	18.67
IGR = Intergovernmental Review		BT&H = Business Transportation & Housing			
MMT = Million miles travelled		B20 and B100 = Biodiesel fuels			
MPOs = Municipal Planning Organizations		CEC = Commission for Environmental Cooperation			

MMT: Million Metric Tons

4. The project would incorporate the use of energy efficient lighting, such as LED traffic signals. LED bulbs — or balls, in the stoplight vernacular — cost \$60 to \$70 apiece but last five to six years, compared to the one-year average lifespan of the incandescent bulbs previously used. The LED balls themselves consume 10 percent of the electricity of traditional lights, which will also help reduce the project's carbon dioxide emissions.

Adaptation Strategies

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

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

On November 14, 2008, then-Governor Schwarzenegger signed Executive Order S-13-08, directing a number of state agencies to address California's vulnerability to sea-level rise caused by climate change.

The California Resources Agency (now the Natural Resources Agency), through the interagency climate action team, was directed to coordinate with local, regional, state and federal public and private entities to develop a state Climate Adaptation Strategy. The Climate Adaptation Strategy would summarize the best known science on climate change impacts to California, assess California's vulnerability to the identified impacts and then outline solutions that can be implemented within and across state agencies to promote resiliency.

As part of its development of the Climate Adaptation Strategy, the Natural Resources Agency was directed to request the National Academy of Sciences to prepare a Sea-Level Rise Assessment Report by December 2010 to advise how California should plan for future sea-level rise. The report is to include the following:

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

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

Prior to the release of the final Sea-Level Rise Assessment Report, all state agencies that are planning to construct projects in areas vulnerable to future sea-level rise were directed to consider a range of sea-level rise scenarios for the years 2050 and 2100 in order to assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea-level rise.

However, all projects that have filed a notice of preparation, and/or are programmed for construction funding the next five years (through 2013), or are routine maintenance projects as of the date of Executive Order S-13-08 may, but are not required to, consider these planning guidelines. Sea-level rise estimates should also be used in conjunction with information regarding local uplift and subsidence, coastal erosion rates, predicted higher high-water levels, storm surge and storm wave data. The State Route 99/State Route 219 (Kiernan Avenue) interchange project was programmed for construction in 2013 and is exempt at this time from the requirement to analyze the impacts of sea-level rise as directed in Executive Order S-13-08.

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system

from increased precipitation and flooding; the increased frequency and intensity of storms and wildfires; rising temperatures; and rising sea levels.

Caltrans is an active participant in the efforts being conducted as part of then-Governor Schwarzenegger's executive order on sea-level rise and is mobilizing to respond to the National Academy of Sciences Sea-Level Rise Assessment report due for release by December 2010. Currently, Caltrans is working to assess which transportation facilities are at greatest risk from climate change effects. However, without statewide planning scenarios for relative sea-level rise and other climate change impacts, Caltrans has not been able to determine what change, if any, may be made to design standards for its transportation facilities. Once statewide planning scenarios become available, Caltrans would be able review its current design standards to determine what changes, if any, may be warranted to protect the transportation system from sea-level rise.

Chapter 3 Comments and Coordination

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process to determine the scope of environmental documentation, the level of analysis, potential impacts and mitigation measures, and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including project development team meetings, interagency coordination meetings, public meetings, and informal communication with the public, businesses, and interested parties as studies were being conducted.

This chapter summarizes the results of Caltrans' efforts to identify, address, and resolve project-related issues through early and continuing coordination.

3.1 Public Agencies

Stanislaus County—Public Works Department

The project is within the boundaries of Stanislaus County's jurisdiction. Through monthly project development team meetings, the Stanislaus County Public Works Department has consistently provided input to ensure there are minimal impacts to local residents and business owners. Coordination of traffic staging, temporary closures and detours would be provided during construction of improvements.

Stanislaus Council of Governments—Model Coordination Committee

Caltrans coordinates with this committee for air quality conformity through monthly project development team meetings.

3.2 Public Outreach

Historical Resources Consultation

On October 14, 2009, letters describing the project and maps showing the Area of Potential Effects were sent to the Native American representatives on the contact list provided by the Native American Heritage Commission. The letters requested any information or concerns they might have regarding the proposed project. No responses to the letters were received within eight weeks despite several follow-up telephone calls to each representative. A summary of these calls is presented below:

- *Ryan Garfield, Vice Chairman, Tule River Indian Tribe:* On November 20, 2009, a voice mail message was left asking Mr. Garfield to provide any information or concerns regarding cultural resources within the Area of Potential Effects. No response has been received to date.
- *Jay Johnson, Spiritual Leader, Southern Sierra Miwuk Nation:* On November 20, 2009, a voice mail message was left asking Mr. Johnson to provide any information or concerns regarding cultural resources within the Area of Potential Effects. No response has been received to date.
- *Katherine Erolinda Perez, North Valley Yokuts Tribe:* On November 20, 2009, a voice mail message was left asking Ms. Perez to provide any information or concerns regarding cultural resources within the Area of Potential Effects. No response has been received to date.
- *Anthony Brochini, Chairperson, Southern Sierra Miwuk Nation:* On November 20, 2009, a voice mail message was left asking Mr. Brochini to provide any information or concerns regarding cultural resources within the Area of Potential Effects. No response has been received to date.
- *Les James, Spiritual Leader, Southern Sierra Miwuk Nation:* On November 20, 2009, a voice mail message was left asking Mr. James to provide any information or concerns regarding cultural resources within the Area of Potential Effects. No response has been received to date.

On September 8, 2009, a letter describing the project and maps showing the proposed project were sent to the Native American Historical Commission in Sacramento asking the commission to review its Sacred Lands File for any Native American cultural resources that might be affected by the proposed project. Also requested were the names of Native Americans who might have information or concerns about the proposed project. Ms. Katy Sanchez, Native American Historical Commission Program Analyst, replied in a fax dated September 16, 2009, that a review of the Sacred Lands File did not indicate any “Native American cultural resources in the immediate project area.” Ms. Sanchez also provided a list of Native American contacts.

On September 8, 2009, a letter describing the project with maps depicting the Area of Potential Effects was sent to the McHenry Museum and Historical Association. No response to the letter was received within eight weeks, so a follow-up telephone call was made. On November 20, 2009, a voice mail message was left asking the McHenry Museum and Historical Society to contact the staff with any information or

concerns regarding cultural resources within the Area of Potential Effects. No response has been received to date.

Public Meeting—November 10, 2009

On November 10, 2009, at 5:30 p.m., Caltrans held a public information meeting at the Nick W. Blom Salida Regional Library. Approximately 88 people signed in at the door.

The meeting format included two open-house periods, one before and one after a presentation by the project manager. Upon arriving, attendees were asked to sign in to maintain an attendance record and to ensure all interested parties would be added to the project mailing list. Each attendee received a handout with an agenda, project background and purpose, project limits, and information on how to comment on the project. Attendees were encouraged to visit the information stations around the room and to view maps, graphics, and display boards. Project development team members were available at the stations to explain the displays, answer questions, and receive public input.

Below is a brief summary of the written or dictated comments received at the public information meeting:

- Concentrate on Kiernan and do it right
- Do not build a Hammett Road interchange
- Consider bicycle and pedestrian needs
- Extend Ladd Road to the State Route 99/Hammett Road interchange
- Widen State Route 99
- Avoid impacts to agricultural land
- Avoid urban sprawl
- Synchronize traffic signal lights
- Consider groundwater issues
- Design Kiernan Road interchange for the north county corridor
- Improve Kiernan Road interchange
- Widen Kiernan Avenue
- Improve Pelandale
- For State Route 99/Kiernan, select Alternative 2
- For State Route 99/Hammett, select Alternative 2
- For State Route 99/Hammett, select Alternative 3
- “No,” against it all
- Concern about impact on Salida

- Open frontage road/parking lot at American Chapman College
- Please get information onto the Web
- Make the fences at the drainage ditches brown
- Make a shared turn lane at Kiernan Alternative 2

Public Circulation Period—November 29, 2010 to December 29, 2010

The Initial Study with Proposed Mitigated Negative Declaration/Environmental Assessment was circulated for public review from November 29, 2010 to December 29, 2010. Comment letters were received on the circulated environmental document, and responses were prepared (see Appendix G).

Copies of the environmental document as well as the technical studies were available for review at the Caltrans district office at 1976 East Martin Luther King Boulevard, Stockton, California 95205 and the Nick W. Blom Salida Regional Library at 4835 Sisk Road, Salida California 95368.

Public Hearing—December 6, 2010

On December 6, 2010 at 6:00 p.m., Caltrans in cooperation with Stanislaus County held a public hearing at the Nick W. Blom Salida Regional Library. Approximately 78 people signed in at the door.

The public hearing was conducted in an open house format, with presentation of project information as well as an opportunity for questions and comments. This interactive format provided an opportunity for members of the public to review maps and other exhibits, hear an overview of the project by the project manager, and ask questions or make comments after the presentation. Attendees were encouraged to submit their comments at a comments station with blank comment sheets and pens. Attendees could also state their comments to an onsite court reporter.

Information stations with project maps, graphics, and exhibits were located around the room. The stations provided information on alternatives, traffic, environmental issues, and right-of-way. Project team members were available at each station to explain the displays, answer questions, and take comments.

See Appendix G for comments received and Caltrans responses.

Chapter 4 List of Preparers

This document was prepared by the following staff:

LSA Associates (Environmental Consulting Staff)

Richard Harlacher, Principal Biologist and Wetlands Specialist. M.S., Biology, California State Polytechnic University, Pomona; 30 years of wildlife biology and wetlands experience. Contribution: Project management and project coordination.

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Justin Howland, Assistant Environmental Planner. B.L.A., Landscape Architecture, University of Oregon, Eugene; 3 years of environmental planning and environmental science experience. Contribution: Initial Study/Environmental Assessment.

Bill Mayer, Principal Environmental Planner. B.S., Urban Planning, California State Polytechnic University, Pomona; 35 years of environmental planning experience. Contribution: Project management and project coordination.

Amberly Morgan, Assistant Environmental Planner. B.A., Environmental Studies, California State University, Sacramento; 3 years of environmental planning experience. Contribution: Floodplain Evaluation Technical Report.

Mike Trueblood, Biologist. B.S., Wildlife, Fish, and Conservation Biology; University of California, Davis; 8 years of biology experience. Contribution: Natural Environment Study.

Caltrans Staff

Allam Alhabaly, Transportation Engineer. B.S., Industrial Engineering, California State University, Fresno; 10 years of environmental technical studies experience. Contribution: Oversight review of the Noise Study Report.

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William Lawrence Dutterra, Landscape Architect. B.S., Landscape Architecture, California Polytechnic State University, San Luis Obispo; 20 years of experience in landscape architecture. Contribution: Oversight review of the Visual Impact Assessment.

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Christina Hibbard, Project Manager. M.A., Anthropology, 1998; PMP certified with the Project Management Institute, 2004. Contribution: Caltrans District 10 Project Manager.

Jose Huerta, Senior Transportation Engineer. Contribution: Provided supervision of design engineering oversight review.

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

Wendy M. Nettles, Associate Environmental Planner. M.A., Anthropology, Florida State University; B.A., Anthropology, Florida State University; 18 years of archaeology/cultural resources management experience. Contribution: Oversight review of the Archaeological Survey Report and Historic Property Survey Report.

Phyllis Sarto, Right-of-Way Agent. Contribution: Oversight review of the Draft Relocation Impact Memorandum and Draft Relocation Impact Statement.

Wuthy Seng, Transportation Engineer-Civil. Contribution: Provided design engineering oversight.

Raychel Skeen, Associate Environmental Planner. B.A., Geography, Minor in Geology, California State University, Humboldt; 16 years of environmental and land use planning experience. Contribution: Coordinated oversight review of the technical studies.

Richard C. Stewart, Engineering Geologist, P.G. B.S., Geology, California State University, Fresno; 21 years of hazardous waste and water quality experience; 4 years of paleontology/geology experience. Contribution: Oversight review of the Paleontological Initial Report/Paleontological Evaluation Report.

Philip Vallejo, Environmental Planner (Architectural History). B.A., History, California State University, Fresno; 8 years of experience in the architectural history field. Contribution: Oversight review of the Historic Resources Evaluation Report.

Charles Walbridge, Associate Environmental Planner. B.S., Biological Sciences, California State University, Fresno; 10 years of environmental planning experience. Contribution: Oversight review of the Natural Environment Study.

Appendix A California Environmental Quality Act Checklist

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

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

Appendix A • California Environmental Quality Act Checklist

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
I. AESTHETICS: Would the project:				
a) Have a substantial adverse effect on a scenic vista	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for or cause rezoning of forestland (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forestland or conversion of forestland to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forestland to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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:

Appendix A • California Environmental Quality Act Checklist

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IV. BIOLOGICAL RESOURCES: Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

V. CULTURAL RESOURCES: Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Appendix A • California Environmental Quality Act Checklist

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

VII. GREENHOUSE GAS EMISSIONS: Would the project:

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

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

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	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				

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

VIII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IX. HYDROLOGY AND WATER QUALITY: Would the project:

a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Result in inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
X. LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XI. MINERAL RESOURCES: Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XII. NOISE: Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XIII. POPULATION AND HOUSING: Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

XIV. PUBLIC SERVICES:

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XV. RECREATION:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XVI. TRANSPORTATION/TRAFFIC: Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Appendix A • California Environmental Quality Act Checklist

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Appendix B Title VI Policy Statement

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
P.O. Box 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5266
FAX (916) 654-6608
TTY 711



*Flex your power!
Be energy efficient!*

July 20, 2010

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

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

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact Charles Wahnnon, Manager, Title VI and Americans with Disabilities Act Program, California Department of Transportation, 1823 14th Street, MS-79, Sacramento, CA 95811. Phone: (916) 324-1353 or toll free 1-866-810-6346 (voice), TTY 711, fax (916) 324-1869, or via email: charles_wahnnon@dot.ca.gov.


CINDY MCKIM
Director

"Caltrans improves mobility across California"

Appendix C Summary of Relocation Benefits

California Department of Transportation Relocation Assistance Program

Relocation Assistance Advisory Services

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

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

Residential Relocation Payments Program

For more information or a brochure on the residential relocation program, please contact Gail Miller at 2015 E. Shields Avenue, Suite 100, Fresno, CA 93726.

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

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

Business and Farm Relocation Assistance Program

For more information or a brochure on the relocation of a business or farm, please contact Gail Miller at 2015 E. Shields Avenue, Suite 100, Fresno, CA 93726.

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

Additional Information

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

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

Any person, business, farm, or non-profit organization, which has been refused a relocation payment by Caltrans, or believes that the payments are inadequate, may appeal for a hearing before a hearing officer or Caltrans’ Relocation Assistance Appeals Board. No legal assistance is required; however, the displacee may choose to obtain legal counsel 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 E. Charter Way/1976 E. Dr. Martin Luther King Jr. Boulevard
Stockton, CA 95205

Appendix D Minimization and/or Mitigation Summary

Relocations

- All displacees would be contacted by a relocation agent who would ensure that eligible displaced residents receive their full relocation benefits including advisory assistance, and that all activities would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Relocation resources are available, free of discrimination, to all displaced residents.
- The Uniform Relocation Assistance and Real Property Acquisitions Policies Act (Uniform Act) of 1970 (Public Law 91-646, 84 Stat. 1894) mandates that payments be made available to eligible residents, businesses, and nonprofit organizations displaced or affected by projects. The Uniform Act provides for equitable land-acquisition policies.
- Where acquisition is unavoidable, the provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act and the 1987 Amendments as implemented by the Uniform Relocation Assistance and Real Property Acquisition Regulations for Federal and Federally Assisted Programs adopted by the Department of Transportation dated March 2, 1989 would be followed. An independent appraisal of the affected property would be obtained and an offer for the full appraisal would be made.

Utilities/Emergency Services

A number of utilities for water, wastewater, storm drainage, electric and natural gas services, and other services are in the project area. Construction of the proposed project may require the relocation of utilities that would be affected by the project. These relocations should not present any unusual circumstances and are considered routine for roadway construction projects. Minimization measures to alleviate utilities/emergency services impacts are as follows:

- The project would be designed to minimize conflicts with utilities in the project area.
- The project would relocate those utilities made difficult to reach for maintenance or access purposes as a result of the project.

- The contractor would be required to provide notification to utility users of any short-term, limited interruptions of service.
- If unexpected underground utilities were encountered, the contractor would coordinate with the utility provider to develop plans that address the utility conflict, protect the utility if needed, and limit service interruptions.
- The contractor would circulate construction schedules and traffic control information to county emergency service providers at least one to two weeks before any road closures.
- The Traffic Management Plan would address redirecting emergency services during temporary lane closures.

Traffic and Transportation/Pedestrian and Bicycle Facilities

The project would implement the following measures to reduce construction-related traffic impacts:

- The contractor would be required to prepare and implement a traffic management plan that would identify the locations of temporary detours and signage to facilitate local traffic patterns and through-traffic requirements.
- The project special provisions of the highway contract would require that emergency service providers (i.e., law enforcement, fire protection, and ambulance services) be given adequate advance notice of any street closures during the construction phases of the proposed project.
- As much as possible, construction activities would be coordinated to avoid blocking or limiting access to homes and businesses. Residents and business owners would be notified in advance about potential access or parking difficulties before construction activities begin.
- Any interchange, ramp, or road closures required during construction would, to the extent possible, be limited to nighttime hours to reduce effects on businesses in the study area. Alternative 2 would provide temporary southbound ramp relocations north and south of Kiernan Avenue during construction.

- The traffic management plan would be prepared to address short-term disruptions in existing circulation patterns during construction; for example, the traffic management plan would identify the locations of temporary detours or temporary roads to facilitate local traffic circulation and through-traffic requirements.

Visual/Aesthetics

Overall impacts to “views of the road” result in some decline to the surrounding visual environment as a result of the proposed project. Changes to the view as a result of the project alternatives would marginally degrade all observation points. Overall impacts to “views from the road” would not change the views dramatically as a result of the proposed project. Measures to alleviate visual impacts are as follows:

- Architectural detailing and/or surface treatments consistent with the surrounding community should be incorporated into new bridge design.
- Artistic soundwall design should be used to break up the built environment and enhance the driving experience. Soundwall design should fit with the surrounding area and meet community goals.
- Soundwalls should be designed to discourage graffiti. Some examples of such soundwall design include rough-textured finishes or uneven surfaces, graffiti-resistant coatings, and vine plantings of a type that would attach to walls.
- Replacement planting would include vegetation seen in the original landscaping.
- Areas affected or disturbed by construction would be replanted with standard replacement landscaping and irrigation systems.

Water Quality and Storm Water Runoff

With the following avoidance, minimization, and proposed mitigation measures incorporated into the project, there would be minimal impact to water quality:

- Preparation and use of the construction site best management practices that comply with the provisions of Caltrans’s Statewide National Pollutant Discharge Elimination System permit and any subsequent permit as it relates to building activities for the project. Best management practices would include submission of a notice of construction to the Regional Water Quality Control Board at least 30 days before the start of construction, preparation and implementation of a Stormwater Pollution Prevention Plan, and submission of a notice of construction

completion to the Regional Water Quality Control Board upon completion of construction and stabilization of the project site.

- Consideration and incorporation of design pollution prevention and treatment control best management practices for the project in accordance with the procedures outlined in the Stormwater Quality Handbooks, Project Planning and Design Guide. Best management practices would include coordination with the Regional Water Quality Control Board with respect to feasibility, maintenance, and monitoring of treatment control best management practices as set forth in the Caltrans's Statewide Stormwater Management Plan.
- Identify all potential locations of concentrated flow and provide proper pavement-drainage design to reduce concentrated flow to the accepted maximum of 0.1 cubic feet per second.
- Where existing fill slopes are modified, all existing drains or swales that are affected should be relocated, extended or modified as necessary to handle water runoff.
- Where existing underdrains are affected, the drain would be rerouted or relocated to be next to the changed edge of pavement. Any reconstruction of underdrains would be to current Caltrans standards.
- Additional retention basins are required to offset the loss in volume (amount of water stored) and provide additional volume for the increased pavement area. Alternative 1 would remove one existing retention basin, modify a second existing retention basin, and build two additional retention basins (for a total of three retention basins). Alternative 2, with an adequate margin of error, would remove one existing retention basin, modify a second existing retention basin and build four new retention basins (for a total of five retention basins) in order to have the capacity to hold two 10-year, 24-hour storms and are sized for the ultimate build-out condition using one 10-year, 24-hour storm.
- The existing pump station should be replaced with a new pump station just north of the existing pump station. The existing storage box would remain, with the existing box extended to connect to the new pump station. The new pump station would discharge to the same 30-inch storm drain that serves the existing pump station. The new pump station peak discharge would be limited to the existing peak discharge of 3,500 gallons per minute, with a total dynamic head of 25 feet.

There are two pumps with this capacity, plus a low-flow pump with a capacity of 300 gallons per minute. In the new pump station, the low-flow or groundwater pump would be in a nearby structure with a separate wet well.

Paleontology

Because the proposed project would affect paleontologically sensitive soil layers that are of potential scientific significance, a Paleontological Mitigation Plan would be developed and implemented. The implementation of the Paleontological Mitigation Plan before construction would reduce potential adverse impacts to paleontological resources. This Paleontological Mitigation Plan should be synthesized from outlines and guidelines provided by Caltrans and the Society of Vertebrate Paleontology and be specifically tailored to the resources and sedimentary formations encountered by the project. The Society of Vertebrate Paleontology and the University of California Museum of Paleontology at University of California, Berkeley would be consulted to ensure that the full range of potential scientific research domains are adequately addressed.

In areas determined to have a high potential for paleontological resources, the Paleontological Mitigation Plan should include the following:

- A preliminary survey and surface salvage prior to construction.
- A qualified principal paleontologist would be present at pre-grading meetings to consult with grading and excavation contractors.
- Monitoring and salvage should be done during excavation. A paleontological monitor, under the direction of the qualified principal paleontologist, would be present to inspect road cuts for fossils at all times during original grading involving sensitive geologic formations.
- Preparation, such as screen washing to recover small specimens (if applicable), and specimen preparation to a point of stabilization, including identification, cataloging, curation, and storage of specimens should be done.
- A final report of the mitigation should be prepared to document any finds and their significance. The report should be deposited in a scientific institution with paleontological collections.

The Paleontological Mitigation Plan would assist Caltrans in complying with environmental laws and regulations requiring mitigation of impacts on paleontological macrofossil resources if found within the project.

Hazardous Waste or Materials

- A Lead Compliance Plan is required regardless of the levels of lead in the soil. The soils found on the northbound on-ramp from zero to 1 foot are classified as hazardous materials; however, they qualify for the Type Y-1 variance under the Department of Toxic Substances Control Act and may be encapsulated onsite under clean fill or pavement.
- Demolition of buildings built prior to 1969 would require an assessment of asbestos-containing building materials and lead-based paint. An asbestos investigation should be performed by an inspector certified by the Asbestos Hazardous Emergency Response Act under Toxic Substance Control Act Title II. Lead-based paint surveys should be conducted by an inspector certified by the California Occupational Safety and Health Administration under State of California rules and regulations. These surveys would be conducted by Caltrans Right-of-Way during acquisition and/or prior to building demolition. Asbestos-containing building materials and lead-based paint should be surveyed and abated (as needed) by using a contractor certified to perform such work.
- Reconstruction of the State Route 99/State Route 219 (Kiernan Avenue) Bridge will require the removal of asbestos-containing sheet-packing and the disturbance of lead-based paint. In the January 2011 surveys, it was determined that these materials will not need to be disposed of as hazardous waste. However, a California Occupational Safety and Health Administration licensed asbestos and lead abatement contractor will be required to remove these materials prior to disposal in the landfill.
- Past land use studies suggest the potential for hazardous chemical contamination from organochlorine pesticides, organophosphorous pesticides, chlorinated herbicides, and heavy metals other than lead. These potential contaminants may be present within the properties to be acquired for right-of-way. Consequently, additional studies for these contaminants should be done on selected properties within the project area to minimize future liability. A risk assessment of the potential hazards (pesticides and heavy metal contamination) should be conducted

during the design phase on properties to be acquired throughout the project area and along the railroad right-of-way.

- Acquisition of one of the petroleum distribution company (permitted to build a gas station) properties would be required for the proposed project. The full extent of the acquisition (partial or full) will not be known until the final design is complete for the preferred alternative (Alternative 1) in the year 2011. As part of the relocation assistance for the property, transportation of petroleum, petroleum by-products, petroleum equipment, and similar materials would be required. Permits from the California Department of Toxic Substances Control would be required before transporting these materials to another site.
- Cylindrical transformers are located within project right-of-way limits and may need to be relocated during the course of the project. These transformers could contain polychlorinated biphenyls that are known to be harmful to humans and the environment. The transformers would need to be handled using the appropriate standards and procedures for their removal. The proper utility company would be notified.
- Thermoplastic striping (roadway paint) removal activity would be conducted in compliance with all applicable laws and regulations such as the guidelines by the California Occupational Office of Safety and Health, San Joaquin Valley Unified Air Pollution Control District, and applicable best management practices. Standard special provisions would be used for removal of the traffic stripe.
- Prior to the start of any construction activities, including grading or ground disturbance, it is recommended that the presence or absence of the historic-era underground storage tank at 4648 Kiernan Avenue be determined to avoid accidental rupture of the tank during earth-moving activities.

Air Quality

Construction Impacts

Compliance with Caltrans' Dust Control Plan would minimize impacts to air quality from construction emissions:

- To reduce fugitive-dust emissions, the construction contractor will adhere to the requirements of San Joaquin Valley Air Pollution Control District Regulation VIII.

- The construction contractor should comply with Caltrans' Standard Specifications Section 7-1.01F and Caltrans' Standard Specifications Section 10.
- The construction contractor should comply with San Joaquin Valley Air Pollution Control District Rule 9510 and submit an air-impact assessment application if it is determined that the construction-related emissions exceed the established thresholds.
- The construction contractor should limit traffic speeds on unpaved roads to 15 miles per hour.
- The construction contractor should install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than 1 percent.
- The construction contractor should install wheel washers for all exiting trucks, or wash all trucks and equipment leaving the site.
- The construction contractor should install windbreaks at windward side(s) of construction area.
- The construction contractor should suspend excavation and grading activity when winds exceed 20 miles per hour (regardless of wind speed, an owner/operator must comply with Regulation VIII's 20 percent opacity limitation).
- The construction contractor should limit area excavation, grading, and other construction activity at any one time.
- The construction contractor should properly and routinely maintain all construction equipment, as recommended by the manufacturer manuals, to control exhaust emissions.
- The construction contractor should shut down equipment when not in use for extended periods of time to reduce emissions associated with idling.

Long-Term Impacts

No mitigation measures are required, as the build alternatives would not result in substantial long-term air quality impacts.

Noise and Vibration

The reasonableness of a soundwall was determined by comparing the estimated cost of building the soundwall against the total reasonable allowance. The total reasonable allowance was determined based on the number of benefited residences multiplied by the reasonable allowance per residence. Construction cost estimates were based on standard masonry block construction. If the estimated soundwall construction cost exceeded the total reasonable allowance, the soundwall was determined not to be reasonable. However, if the estimated soundwall construction cost was within the total reasonable allowance, the soundwall was determined to be reasonable.

Based on the studies completed to date, Caltrans intends to reduce noise by placing soundwalls at locations shown in Figures 2-3a, 2-3b, 2-4a, and 2-4b, with respective lengths and average heights of shown in Table 2.25. Preliminary design data indicate that soundwalls would reduce noise levels by 5 dBA for residences at the cost shown in Table 2.26. If during final design, conditions have substantially changed, noise abatement may not be necessary. The final decision of the noise abatement would be made upon completion of the project design and the public involvement processes.

- **Alt1 SB3.** This sound barrier (soundwall) was analyzed for Alternative 1 and would be located along the southern property line of the residential properties that border Kiernan Court. This sound barrier would also wrap around to the north along the eastern property line of the residential properties and would, with implementation of the project, border Sisk Road. This sound barrier is modeled to protect the existing residential properties represented by receptors R7, R8, R31, R32, and R33.
- **Alt2 SB3.** This sound barrier (soundwall) was analyzed for Alternative 2 and would be built along the northwest project limit that borders Kiernan Court, State Route 219 (Kiernan Avenue), and Sisk Road. This sound barrier is modeled to protect the existing residential properties represented by receptors R7, R8, R32, and R33.

Secondary Impacts of Abatement Measures

Based on the analysis of the Noise Abatement Decision Report, all secondary effects of implementation, including biological impacts, water quality, visual impacts, hazardous waste, and cultural resources impacts of the recommended abatement measures were determined to be not substantial. Therefore, no adverse effects are

anticipated to result from the construction of soundwalls as part of the proposed project.

Construction Noise Abatement

During construction of the project, noise from building activities may intermittently be heard in the area. Construction equipment can generate noise levels ranging from 70 to 90 decibels at a distance of 50 feet. Noise produced by construction equipment would be reduced over distance at a rate of about 6 decibels per doubling of distance.

Construction noise is regulated by Caltrans Standard Specifications Section 7-1.0011, “Sound Control Requirements,” which states that noise levels generated during building would comply with applicable local, state, and federal regulations, and that all equipment would be fitted with adequate mufflers according to the manufacturer’s specifications.

No adverse noise effects from construction are anticipated because construction would be done in accordance with Caltrans Standard Specifications Section 7-1.011 and applicable local noise standards. Construction noise would be short term, intermittent, and overshadowed by local traffic noise. Further, implementing the following measures would minimize the temporary noise effects during building activities:

- All equipment would have sound-control devices that are no less effective than those provided on the original equipment. No equipment would have an unmuffled exhaust.
- As directed by Caltrans, the contractor would implement appropriate additional noise mitigation measures including changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, and installing acoustic barriers around stationary construction-noise sources.

Animal Species

Nesting Birds

- All clearing and grubbing should be done during the non-nesting season (between October 1 and February 28). If this is not possible, a qualified biologist should do a survey for nesting birds in the biological study area. The survey must take place a maximum of 14 days prior to the start of construction. If nesting birds are found within the biological study area, a setback of 100 feet from nesting areas shall be

established and maintained during the nesting season. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests which are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing and maintained until construction is complete or the young have fledged, as determined by a qualified biologist.

Alternatively, the setback (if required) may be reduced if a qualified biologist is present to monitor the nest(s) when construction begins. If the biologist determines nesting is not affected by construction activities with the reduced setback, work can proceed. If it is determined that construction activities are adversely affecting the nesting birds with the reduced setback, all construction within 100 feet of a nest shall be halted until the biologist can establish an appropriate setback.

With the implementation of the minimization measures described above (i.e., pre-construction surveys and buffers) impacts to nesting birds would be avoided.

Invasive Species

To avoid the distribution of invasive species to offsite areas during project construction, contract specifications should include, at a minimum, the following measures:

- All earth-moving equipment to be used during project construction should be thoroughly cleaned before arriving on the project site.
- All seeding equipment (i.e., hydro-seed trucks) should be thoroughly rinsed at least three times prior to arriving at the project site and the beginning of seeding work.
- To avoid spreading any nonnative invasive species already existing onsite to offsite areas, all equipment should be thoroughly cleaned before leaving the site.

In compliance with Executive Order 13112 on invasive species and subsequent guidance from the Federal Highway Administration, the landscaping and erosion control included in the project would not use species listed as noxious weeds.

In areas of particular sensitivity, extra precautions would be taken if invasive species were found in or adjacent to the construction areas. Precautions include the inspection and cleaning of construction equipment. Eradication strategies would be used should an invasive species be discovered.

Appendix E Farmland Conversion Impact Rating

U.S. Department of Agriculture						
FARMLAND CONVERSION IMPACT RATING						
PART I (To be completed by Federal Agency)			Date Of Land Evaluation Request			
Name Of Project		Federal Agency Involved				
Proposed Land Use		County And State				
PART II (To be completed by NRCS)			Date Request Received By NRCS			
Does the site contain prime, unique, statewide or local important farmland? <i>(If no, the FPPA does not apply -- do not complete additional parts of this form).</i>			Yes <input type="checkbox"/>	No <input type="checkbox"/>	Average Farm Size	
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %		Amount Of Farmland As Defined in FPPA Acres: %			
Name Of Land Evaluation System Used	Name Of Local Site Assessment System		Date Land Evaluation Returned By NRCS			
PART III (To be completed by Federal Agency)			Alternative Site Rating			
			Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly			4.5	4.4		
B. Total Acres To Be Converted Indirectly						
C. Total Acres In Site			4.5	4.4	0.0	0.0
PART IV (To be completed by NRCS) Land Evaluation Information						
A. Total Acres Prime And Unique Farmland						
B. Total Acres Statewide And Local Important Farmland						
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted						
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value						
PART V (To be completed by NRCS) Land Evaluation Criterion						
Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)			0	0	0	0
PART VI (To be completed by Federal Agency)			Maximum Points			
Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))						
1. Area In Nonurban Use			15	4	4	
2. Perimeter In Nonurban Use			10	10	10	
3. Percent Of Site Being Farmed			20	20	20	
4. Protection Provided By State And Local Government			20	0	0	
5. Distance From Urban Builtup Area			15	0	0	
6. Distance To Urban Support Services			15	0	0	
7. Size Of Present Farm Unit Compared To Average			10	0	0	
8. Creation Of Nonfarmable Farmland			10	0	0	
9. Availability Of Farm Support Services			5	4	4	
10. On-Farm Investments			20	1	1	
11. Effects Of Conversion On Farm Support Services			10	0	0	
12. Compatibility With Existing Agricultural Use			10	2	2	
TOTAL SITE ASSESSMENT POINTS			160	41	41	0
PART VII (To be completed by Federal Agency)						
Relative Value Of Farmland (From Part V)			100	0	0	0
Total Site Assessment (From Part VI above or a local site assessment)			160	41	41	0
TOTAL POINTS (Total of above 2 lines)			260	41	41	0
Site Selected:		Date Of Selection		Was A Local Site Assessment Used?		
				Yes <input type="checkbox"/> No <input type="checkbox"/>		
Reason For Selection:						

(See Instructions on reverse side)
This form was electronically produced by National Production Services Staff

Appendix F Federal Highway
Administration Conformity
Determination

Appendix G Comments and Responses

This appendix contains the comment letters submitted by public agencies and members of the public during the public circulation and comment period from November 29, 2010 to December 29, 2010 and the Public Hearing on December 6, 2010. A Caltrans response follows each comment presented.

The following individuals, agencies, or entities made comments on the Initial Study with Proposed Mitigated Negative Declaration/Environmental Assessment for the State Route 99/State Route 219 (Kiernan Avenue) Interchange Reconstruction Project (they are listed in this order in this appendix):

State Clearinghouse, California State Department (December 29, 2010)

Mike Rogers, AAI Ceramic Tile, Inc. (December 23, 2010)

Mike Beeler, Beeler Industries, Inc. (December 6, 2010)

Bruce Lish, Blue Diamond Growers (December 13, 2010)

John Street, individual (emailed December 7, 2010)

Billy Laws, individual (December 8, 2010)

Caroline Mitton, individual (emailed November 29, 2010)

Frank Ploof, individual (emailed December 22, 2010)

John T. Street, Jr., individual (December 19, 2010)

Law Offices of Brunn & Flynn representing Richard and Brenda Lowry, George W. Lowry, Inc. (December 29, 2010)

Jeff Barnes, individual (December 6, 2010)

Michelle Barnes, individual (December 6, 2010)

Tom Burns, Salida Fire District Board of Directors (December 6, 2010)

Joe Neal, individual (December 6, 2010)

Paul Rumble, individual (December 6, 2010)

Kamaljik Kaur, House of Liquor (December 6, 2010)

Craig Coker, individual (comments submitted to the Court Reporter at the Public Hearing on December 6, 2010)

Douglas Joe, individual (comments submitted to the Court Reporter at the Public Hearing on December 6, 2010)

Don Beachler, individual (comments submitted to the Court Reporter at the Public Hearing on December 6, 2010)

Marcie Powell, individual (comments submitted to the Court Reporter at the Public Hearing on December 6, 2010)

Helder Garcia, Volvo Rents Construction Equipment (comments submitted to the Court Reporter at the Public Hearing on December 6, 2010)

State Clearinghouse, State Department (December 29, 2010)



Arnold Schwarzenegger
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Cathleen Cox
Acting Director

December 29, 2010

Gail Miller
California Department of Transportation, District 6
2015 E. Shields Avenue, Suite 100
Fresno, CA 93726-5428

Subject: State Route 99/State Route 219 (Kiernan Avenue) Interchange Reconstruction Project
SCH#: 2010112073

Dear Gail Miller:

The State Clearinghouse submitted the above named Joint Document to selected state agencies for review. The review period closed on December 28, 2010, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

SCH-1

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

Sincerely,

Scott Morgan
Director, State Clearinghouse

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Response to State Clearinghouse, State Department (December 29, 2010)

Response SCH-1: The State Clearinghouse letter acknowledges that Caltrans has complied with review requirements for the draft environmental documents, pursuant to the California Environmental Quality Act.

Mike Rogers, AAI Ceramic Tile, Inc. (December 23, 2010)



AAI CERAMIC TILE, INC.
PO BOX 568, SALIDA CA 95368
Phone 209-545-1626
Toll Free 1-800-411-5132
Fax 209-545-5997
State License # 533643
www.aaitile.com

December 7, 2010

Public Outreach Coordinator
Regarding: Route 99/219 (Kiernan Avenue) Interchange
P.O. Box 773
Stockton, CA95201-0773

Caltrans Comments on above project,

My comments first will be about my personal preference of design and second safety and noise issues regarding the properties I own along Salida Blvd, Salida California.

First comment, Alternative 2 is a far superior design than alternative 1. Since I've owned property on Salida Blvd for over 25 years I've seen this community develop tremendously. If alternative 1 is chosen we will deal with the same issues the Briggsmore interchange has today within 15 years, the bridge completely full of cars, stopped in both directions and almost impassable during high peak usage.

MR-1

Second comment concerning safety and noise in regards to my properties. The addresses I own on Salida blvd are as follows: 4920,40,60,70, 5000 and 5012 Salida Blvd. Salida CA. Since I've stated above I've owned these properties for along time I've seen many freeway accidents that have occurred in front of our properties. Some that have come through the Caltrans chain link fence and one that went into one of our buildings. Fortunately this one occurred at night and no one was injured. The off ramp of either alternative 1 or 2 moves the lanes closer to my buildings especially 4920 Salida Blvd. it appears one corner of the building is extremely close to the off ramp lane. My concern is someone crashing into one of these buildings and injuring or even worse killing someone. This could be addressed now and stop a potential injury later.

MR-2

Next the sound issues, over the past twenty five years the freeway traffic has increased tremendously as you know. Increased traffic also has increased the noise levels. Moving the lanes closer to our buildings and these vehicles slowing down on the off ramp will increase our noise level in our buildings tremendously. A safety and sound barrier wall could eliminate both issues on all or most buildings. I'm still concerned about 4920 Salida Blvd. how close this building actually is to the lanes will determine if the safety sound barrier wall would work. Thank you for the opportunity to make comments.

MR-3

Sincerely,

Mike Rogers



Response to Mike Rogers, AAI Ceramic Tile, Inc. (December 23, 2010)

Response MR-1: Thank you for your comments on the project and your support of Alternative 2. However, based on several considerations, including cost and other design considerations, Alternative 1 has been selected as the preferred alternative. Alternative 1 would improve intersection, mainline and ramp levels of service and is designed to meet 2035 forecasted traffic volumes.

Response MR-2: In regard to safety, the current interchange configuration's total accident rates within the project area on the State Route 99 northbound and southbound off-ramps and the State Route 219 (Kiernan Avenue)/Sisk Road intersection are higher than the statewide average for similar facilities.

With the proposed project (both build alternatives), the auxiliary lanes on the mainline between the State Route 99/Pelandale Avenue interchange and the State Route 99/State Route 219 (Kiernan Avenue) interchange would improve vehicle movements for exiting and entering traffic. The Kiernan Avenue/Sisk Road intersection would be widened to provide more room for future traffic demand, reducing congestion and providing better traffic flow at the intersection. A majority of accidents are non-fatal and/or non-fatal + injury. With the improved traffic flow and operation, the project should reduce the incidents of accidents due to reduced congestion and improved levels-of-service.


Currently safety railing and guardrails are not present at the interchange on and off ramps as they were not determined necessary with the current configuration. A formal safety review by the District Safety Review Committee will be performed during planning, design and construction to ensure the project enhances safety for motorists and highway workers. Safety railing and guardrails would be provided in accordance with the Caltrans Highway Design Manual standards.

Response MR-3: In regard to noise, a Noise Study Report was completed in March 2010 and the Noise Abatement Decision Report was completed in October 2010. Noise abatement is provided when project-related noise impacts exceed state and federal noise criteria. Section 2.2.5 Noise and Vibration in this document summarizes and illustrates in greater detail noise and vibration impacts along with analysis on noise abatement within the project's footprint. Typically, noise abatement is provided to protect sensitive receptors such as residences, schools and churches; businesses generally do not qualify for noise abatement. Noise abatement for non-sensitive receptors must comply with a higher noise criteria threshold.

The following soundwall are proposed for the project. For Alternative 1, a 16-foot soundwall would be located along the southern property line of the residential properties bordering Kiernan Court. This soundwall would also wrap around to the north along the eastern portion of the residential property lines and, with the implementation of the project, would border Sisk Road.

A final decision on soundwalls and right-of-way programming would be determined at completion of project design and the public involvement process. Soundwall design and right-of-way programming would conform to Caltrans Highway Design Manual requirements.

Mike Beeler, Beeler Industries, Inc. (December 6, 2010)

	Route 99/219 (Kiernan Avenue) Interchange
Comment Sheet	
Name (Please print):	<u>MIKE BEELER</u> Date: <u>12-6-10</u>
Mailing address:	
Resident, Business, Organization, etc.:	<u>Beeler Industries</u>
Phone: _____	Email: _____
Comments:	
<u>THE ALT. 2-HYBRID IS THE</u>	MB-1
<u>CORRECT INTERCHANGE TO PROMOTE</u>	
<u>TRAFFIC FLOW NOW & IN THE FUTURE</u>	
<u>I WOULD HOPE THE LOCAL</u>	MB-2
<u>BUSINESS BEING TAKEN ARE PROPERLY</u>	
<u>TREATED WHERE THEY CAN CONTINUE</u>	
<u>TO SERVE THE COMMUNITY W/O LOSS.</u>	
<u>RESPECTS MIKE B.</u>	
<small>Project Hotline: (209) 464-8707, ext. 101 or toll-free (877) 464-4350 Email: Hotline@buethcommunications.com Write: Public Outreach Coordinator Route 99/219 (Kiernan Avenue) Interchange P.O. Box 773 Stockton, CA 95201-0773</small>	

Response to Mike Beeler, Beeler Industries, Inc. (December 6, 2010)

Response MB-1: Thank you for your comments on the project and your support of Alternative 2. However, based on several considerations, including cost and other design considerations, Alternative 1 has been selected as the preferred alternative.

Response MB-2: While some businesses would be displaced by the project and require relocation, the relocation process has been designed to provide just compensation to the property owners to minimize harm. In addition, it is the intent of the program to provide relocation assistance to comparable property to allow the property owners to re-establish their business in the community and continue serving the community in a financially sound manner.

All persons who are displaced because of the proposed project would be contacted by a Relocation Agent to ensure that eligible displaced residents receive their full relocation benefits, including advisory assistance, and that all activities would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Relocation resources would be available to all displaced residents free of discrimination (Appendix C, Summary of Relocation Benefits).

Tenant occupants of properties to be acquired are contacted soon after the first written offer to purchase and also are given a detailed explanation of Caltrans' Relocation Program Property Acquisition Policies Act of 1970, as amended. Caltrans would provide relocation advisory assistance to any person, business, farm, or non-profit organization displaced as a result of acquisition of real property for public use.

Bruce Lish, Blue Diamond Growers (December 13, 2010)



December 13, 2010

Central Sierra Environmental Analysis Branch
California Department of Transportation
Attention: Ms. Gail Miller
2015 East Shields Avenue, Suite 100
Fresno, California 93726

Dear Ms. Miller,

Blue Diamond Growers is open to working with all agencies involved in the reconstruction and upgrades proposed to Kiernan Avenue and Sisk Road, adjacent to our almond processing plant. We understand the proposed plans are not completed to a detailed design level and would ask that you review the following items in order to limit the amount of land required for the upgrades and allow our business to operate without interruption during the construction phase.

1. The information about traffic flow presented to us suggests low enough volume to consider eliminating the right hand turn lane from Sisk to Kiernan and avoid relocation of our percolation pond.

BD-1

2. The water well shown on the plans belongs to the City of Modesto and not Blue Diamond Growers. It appears as though the “pump head” is outside of the construction area but the large storage vessel and main line is in the way. Blue Diamond would be open to negotiations for additional land to allow you to pivot the large storage tank and save the expense of further costs to the project. Again, eliminating the right hand turn lane from Sisk would lessen this issue and costs.

BD-2

3. We would ask that the concrete sidewalk be extended from the proposed location at Sisk and Kiernan to Nutcracker lane. It appears to be “within” the State project area on the maps

BD-3

4. Our operating hours are 24 hours per day and from 5-7 days per week. It is imperative that Access to our plant is available 24/7. We have access points at Nutcracker for trucks. Employees, visitors and our retail grower store customers enter from Sisk road

BD-4

5. There are a few Modesto Irrigation District manhole covers inside the project area that do not appear on the plans. Please contact Darrell Nelson to gain access to our site and view these items

BD-5

Respectively submitted,

Bruce Lish
General Manager
Blue Diamond Growers
(916) 446-8420
blish@bdgrowers.com

cc: Darrell Nelson
Plant Manager – Salida
(209) 545-6214
dnelson@bdgrowers.com

Response to Bruce Lish, Blue Diamond Growers (December 13, 2010)

Response BD-1: Thank you for your comments on the project. Future traffic models (2015 and 2025) were performed and analyzed for the intersection at Sisk Road and Kiernan Avenue. The right-hand turn lane from Sisk Road to Kiernan Avenue is required to improve the intersection's level-of-service to meet the County's standard. If the right turn lane is not constructed in the future, the intersection would experience increased congestion and the level-of-service would decline to an unacceptable level.

Response BD-2: During design, the engineer would identify all utilities (pump heads) and their respected owners/operators. Any land negotiations would be performed under the Uniform Relocation Assistance and Real Property Acquisitions Policies Act (Uniform Act) of 1970 (Public Law 91-646, 84 Stat. 1894). As stated in Response BD-1, the right-hand turn lane from Sisk Road to Kiernan Avenue is a necessary lane to improve the intersection's level-of-service.

Response BD-3: Both build alternatives would provide pedestrian/bikeway facilities that are consistent with Stanislaus County's planned future pedestrian/bikeway network. Based on the Stanislaus County Street Design Guidelines, arterials should provide a minimum 8-foot-wide detached sidewalk/bike path on each side of the roadway. Sidewalks would end at the Sisk Road/State Route 219 (Kiernan Avenue) intersection. There would be no sidewalks along State Route 219 (Kiernan Avenue) to Nutcracker Lane.

Response BD-4: A Traffic Management Plan is required to identify the locations of temporary detours and signage to facilitate the local traffic patterns and through-traffic requirements. The plan would consider the operations at Blue Diamond Growers and would seek to avoid or minimize disruption to the extent practicable.

Response BD-5: The project team would contact Darrell Nelson about the additional manhole covers.

John Street, individual (emailed December 7, 2010)

Good day Gentlemen,

I am contacting you today, to see if I can get in writing that my property (parcel numbers 135-041-010-000 and 135-041-011-000) physical address is 4573 Hope Lane, Salida Ca 95368, is safe and not included in either plan.

JS-1

I know that we had addressed this and you assured me that my house and land is secure.

Also we had discussed an option for a sound wall or guard rail system.
At this time i would prefer the guard rail.

JS-2

Thank you for your time.

John Street

Response to John Street, individual (emailed December 7, 2010)

Response JS-1: Thank you for your comments on the project. For both build alternatives, the design at this time shows that the State Route 99 auxiliary lane can be constructed within the existing freeway right-of-way. No right-of-way take from your parcel is foreseen at this time.

Response JS-2: The proposed project (both build alternatives) would be designed to meet Caltrans and Federal Highway Administration design standards for safe operation and the safety of residents/business surrounding the proposed project. During the design phase, engineers would assess the need for a safety railing/guardrail at that location. It should be noted that noise abatement (soundwalls) was identified in the Noise Study Report, and was further considered in the Noise Abatement Decision Report. The final decision for noise abatement would be made at completion of project design and the public involvement process. Your comments regarding a preference for safety railing/guardrail will be considered.

Billy Laws, individual (December 8, 2010)



Route 99/219 (Kiernan Avenue) Interchange

Comment Sheet

Name (Please print): Billy Laws Date: 12/8/10

Mailing address:

Resident, Business, Organization, etc.: Resident

Phone:

Email:

Comments: My house is in the Clarendon Wood complex and is just west of lots 10 & 11 which will be demolished as part of the expansion. I'm very concerned that the empty lots will become a dumping ground and an eyesore the same as Sisk & Wessex where the homes were demolished as part of the first expansion. I also want to ensure that there is an attractive sound wall on the east & south boundaries of my property. I suggest a park be developed on lots 10 & 11 with someone responsible for maintenance & upkeep.

BL-1

BL-2

Project Hotline: (209) 464-8707, ext. 101 or toll-free (877) 464-4350
Email: Hotline@buethecommunications.com
Write: Public Outreach Coordinator
Route 99/219 (Kiernan Avenue) Interchange
P.O. Box 773
Stockton, CA 95201-0773

Response to Billy Laws, individual (December 8, 2010)

Response BL-1: Thank you for your comments on the project. While the remnant properties are not planned for a future park use, the disturbed lands affected by construction would be replanted with standard replacement landscape and irrigation systems. All Caltrans-owned rights-of-way would have a Caltrans Litter Abatement Plan to deal with litter along state and federal highways.

Response BL-2: The following soundwall are proposed for the project. For Alternative 1, a 16-foot soundwall would be placed along the southern property line of the residential properties bordering Kiernan Court. This soundwall would also wrap around to the north along the eastern portion of the residential property lines and, with the implementation of the project, would border Sisk Road. Section 2.2.5 Noise and Vibration in this document summarizes and illustrates in greater detail noise and vibration impacts along with analysis on noise abatement within the project's footprint.

A final decision on soundwalls and right-of-way programming would be determined at completion of project design and the public involvement process. Soundwall design and right-of-way programming would conform to Caltrans Highway Design Manual requirements. Included in the design process is the consideration of aesthetics and appearance. The County and Caltrans are aware of the image potential for soundwalls and take responsibility for ensuring that the soundwalls would maintain a long-term visual appeal.

Please refer to Response BL-1 regarding the park concept for the remnant parcels.

Caroline Mitton, individual (emailed November 29, 2010)

Dear Planner,

I received your note about the interchange and am curious to know what data you used that forecasts traffic growth. We have high unemployment here, with people unable to find work, losing their homes -- stores closing left and right. The price of gasoline is rising. Where's the traffic growth coming from? We are in a severe recession/depression, who's going to be driving more? Are you extrapolating from old data that was taken before the seriousness of our future changes became evident? Life will not return to what it has been.

CM-1

I would suggest scaling down to the absolute minimum whatever you have planned for 99/219 and diverting the money to some better use after you spend some time in serious and thoughtful consideration of what our *real* future transportation needs will be. It would be desirable to use data that tried to take into account our future, not our past, since the past is no longer relevant for forecasting traffic patterns, given the changes looming in our society.

CM-2

Sincerely,

Caroline Mitton
1120 Tasmania Way
Modesto, 95356

P. S. You still have me down as being with the local Sierra Club. I am not.
Please change your contact to: Brad Barker,

CM-3

Response to Caroline Mitton, individual (emailed November 29, 2010)

Response CM-1: Thank you for your comments on the project. Data for current interchange, mainline and intersections were collected from traffic counts performed in 2009 and the Caltrans Traffic Operations Division for mainline and ramp average daily traffic volumes dated 2007. Future traffic forecasts were based on the Stanislaus Council of Governments 2011 Regional Transportation Plan, which has been updated with current economic data to determine projected future traffic demands.

As a result of the lengthy process and cost of improvements, the County and Caltrans must plan for a minimum 20-year time horizon to plan for interchange changes.

While the present economic and traffic conditions might not suggest the need for the improvements, the long-range forecasts indicate that these improvements would ultimately be necessary to avoid significant decline in traffic level-of-service and future increased congestion.

Response CM-2: The proposed project is designed to accommodate forecasted traffic volumes according the Stanislaus Council of Governments 2011 Regional Transportation Plan and Salida Community Plan. The County and Caltrans anticipate that the current economic climate will eventually improve and that the project need will be sustained as a result of projected growth.

Response CM-3: An email was sent and follow-up phone call was placed to ensure the public outreach coordinator updated the contact information for the local Sierra Club Representative Brad Barker.

Frank Ploof, individual (emailed December 22, 2010)

From: Frank Ploof
Sent: Monday, December 20, 2010 3:34 PM
Subject: Kiernan Interchange Project

After attending the Public Hearing on 12/6, I have several comments, as follows.

- 1) I recommend option 1 because for the extra 20 million dollars you only get very minor improvements in flow and it also preserves existing businesses which may not survive if they are forced to move.
- 2) Try to use right turn lanes as pedestrian traffic is very light in this area. They can be managed solely with push-buttons.
- 3) If option 2 is preferred, consider shifting whole loop further north to preserve businesses.
- 4) Take a look at interchange [3400 East Cactus Rd and Hwy 51 in Phoenix Az] as alternative.. See Google image at: <http://maps.google.com/maps?hl=en&tab=wl>

FP-1
FP-2
FP-3
FP-4

--
Thanks,

Response to Frank Ploof, individual (emailed December 22, 2010)

Response FP-1: Thank you for your comments on the project. Thank you for your input.

Response FP-2: Forecasted traffic volumes indicate a need to provide free right-turn lanes in the interchange design. Locations would be determined during the final design phase.

Response FP-3: Based on several considerations, including cost and design, Alternative 1 has been selected as the preferred alternative. Alternative 2 cannot be shifted to the north. The project must meet Caltrans Highway Design guidelines of a minimum distance of 1 mile between interchanges. Shifting the interchange to the north would create substantial relocation impacts and be infeasible from a cost perspective.

Response FP-4: The State Route 51/East Cactus Road interchange is a single-point interchange. A single-point interchange concept was developed and evaluated in the early studies for this project. This type of design was examined during the Project Study Report phase of the project and was found to be incompatible with the adjacent Union Pacific Railroad crossing at Broadway Avenue and Kiernan Avenue. This alternative was eliminated from further consideration for that reason.

John T. Street, Jr., individual (December 19, 2010)



Route 99/219 (Kiernan Avenue) Interchange

Comment Sheet

Name (Please print): JOHN T STREET JR Date: 12-19-10

Mailing address:

Resident, Business, Organization, etc.: 3RD GENERATION HOME/LAND OWNER

Phone:

Email:

Comments: I WAS RAISED & LIVED AT 4573 HOPE LANE IN SALIDA
ALL MY LIFE. THE SURROUNDING LAND THAT OTHERS OWN NOW,
ALSO WHERE THE 99 FREEWAY IS, MY GRANDFATHER OWNED &
FARMED THE LAND. THIS ROAD (HOPE LANE) FORMALLY SISK RD
YEARS AGO, HOLDS A LOT OF FAMILY HISTORY & MEMORIES.
YES, I AM IN THE ONLY HOUSE LEFT ON THE LANE. OTHER
HOUSE WENT YEARS AGO. I HAVE NEVER HAD A REALLY CLOSE
NEIGHBOR, AND MY TAXES ARE REALLY LOW.
UNFORTUNATELY, IF MY HOUSE IS TAKEN, I COULDN'T AFFORD
A HOUSE PAYMENT OR AN INCREASE IN PROPERTY TAXES.
I CAN STAND THE FREEWAY 12 FEET OR CLOSER AS IN PLAN #1.

JS-1

I WAS TOLD AT THE MEETING ON DEC 16TH 2010, THAT MY HOUSE WAS
SAFE. PLEASE DONT TAKE MY FAMILY HISTORY & HOME FROM ME,

Project Hotline: (209) 464-8707, ext. 101 or toll-free (877) 464-4350

Email: Hotline@buethecommunications.com

Write: Public Outreach Coordinator

Route 99/219 (Kiernan Avenue) Interchange

P.O. Box 773

Stockton, CA 95201-0773

THANK YOU
JOHN
STREET

Response to John T. Street, Jr., individual (December 19, 2010)

Response JS-1: Thank you for your comment on the project. For Alternative 1, the design at this time shows that the State Route 99 auxiliary lane can be constructed within the existing freeway right-of-way. No right-of-way take from your parcel is foreseen at this time.

Law Offices of Brunn & Flynn, representing Richard and Brenda Lowry, George W. Lowry, Inc., (December 29, 2010)



LAW OFFICES
A Professional Corporation
AV-Preeminent Rated

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e-mail: gbrunn@brunn-flynn.com

December 29, 2010

VIA U.S. MAIL and ELECTRONIC MAIL
gail_miller@dot.ca.gov

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

RE: Project Id 10 0000 0100, SR 99/ SR 219 Interchange Reconstruction Project

Dear Ms. Miller:

This office represents Richard and Brenda Lowry, joint owners of the real property parcels commonly known as 4612 and 4632 Kiernan Court, Salida, California, 95368. 4612 Kiernan Court is the principal storage site for GEORGE W. LOWRY, INC (GWL), a petroleum company that has been doing business on said property for over 60 years. Both 4612 and 4632 Kiernan Court contains offices for GWL.

We understand the proposed project, referenced above, would eliminate the 4612 parcel entirely and take certain parts of the 4632. The adverse impact to our client and the community would be the same under either of Caltrans' alternative proposals. Of course, you are aware that Caltrans took portions of the 4612 parcel when Kiernan Ave (SR 219) was recently widened. It also bears mentioning that the prior project required GWL to alter its property layout and business operations at great expense.

After review of Caltrans' Draft Environmental Impact Report / Initial Study with Proposed Mitigated Negative Declaration / Environmental Assessment, it appears that significant potential environmental impacts have been ignored by Caltrans. The current proposal disrupts GWL's business since a new industrial zoned parcel of property will have to be located and purchased and the necessary petroleum equipment and materials must be moved to the new location. Not only will such a project cost several million dollars, expenses which must be paid by Caltrans, but there are significant potential environmental impacts that must be considered.

GWL-1

GWL-2

Under the California Environmental Quality Act, all significant environmental impacts must be considered. See Cal. Pub. Resources § 21083, and 14 CCR 15120, et seq. The 4612 parcel contains very carefully regulated materials and equipment. Said regulations include, but are not limited to, the Uniform Fire Code and the California Health and Safety Code. There are

GWL-3

Law Offices of Brunn & Flynn representing Richard and Brenda Lowry, George W. Lowry, Inc., (December 29, 2010)

Gail Miller, Branch Chief
Central Sierra Environmental Analysis Branch
California Department of Transportation
December 29, 2010
Page 2

over 150,000 gallons of petroleum products and chemicals present on the parcels at any given time. Such lubricants require equipment such as specialized storage tanks. The EIR should have addressed the potential hazard of removing and transporting sensitive petroleum equipment and material.

On or about December 8, 2010, Caltrans requested that our clients' authorize Caltrans employees to enter the premises to conduct environmental studies. It is unclear why such studies were not conducted before Caltrans published its Draft Environmental Impact Report / Initial Study with Proposed Mitigated Negative Declaration / Environmental Assessment considering the nature of the property usage. As such, the document is insufficient as a matter of law until the potential environmental impact caused by the disruption of GWL's offices, materials, and equipment is analyzed.

GWL-4

We look forward to your response.

Very truly yours,

LAW OFFICES OF BRUNN & FLYNN
A Professional Corporation



GERALD E. BRUNN

GEB/sbc

Response to the Law Offices of Brunn & Flynn representing Richard and Brenda Lowry, George W. Lowry, Inc. (GWL), (December 29, 2010)

Response GWL-1 (General Comment): Thank you for your comments on the project. For clarification, the environmental document prepared for this project is an Initial Study with Proposed Mitigated Negative Declaration/Environmental Assessment (IS/EA), not an Environmental Impact Report (EIR) as stated in the letter.

Response GWL-2: The project would require acquisition of 4612 Kiernan Court and partial acquisition of 4632 Kiernan Court. The full extent of the acquisition will not be known until the final design is complete for the preferred alternative (Alternative 1) in the year 2011. Currently, these connected properties are being used as a petroleum distribution company (permitted to build a gas station) by George W. Lowry, Inc.

All offers would represent the best and most current estimate of market value determined through sound, approved appraisal and acquisition practices. Prior to any discussion about the terms of the Right of Way contract and the compensation to be paid, George W. Lowry, Inc. would be given full information on the following, as required under the Caltrans Right of Way Manual requirements:

- The role of the Department (Caltrans) and its acquisition functions.
- The necessity for the proposed transportation improvement.
- Project design and how the proposed improvement would affect the property.
- The ability of our appraisal staff and the honest and sincere effort that has been made to determine the market value of the property. During the course of acquisition discussion, agents must remember that they are representing the interest of the public as well as that of the property owner (George W. Lowry, Inc.), particularly if the owner may be unfamiliar or inexperienced in the real estate transaction and real estate values.

George W. Lowry, Inc. has the right to hire an independent appraiser at the expense of Caltrans in order to determine the market value of the property.

Response GWL-3: Movement of petroleum products and chemicals as a result of acquisition is addressed in the Hazardous Waste and Materials section in the final

Initial Study/Environmental Assessment. As part of the acquisition, the project Right of Way agent would identify the hazardous waste in accordance with Caltrans Right of Way Manual section 4.01.10.00. Transporting sensitive petroleum equipment and chemical materials to a new site would require permits (funded by Caltrans) from the California Department of Toxic Substances Control.

As part of the Initial Study/Environmental Assessment environmental process, a Phase 1 Initial Site Assessment was completed for the project in December 2004. A subsequent 2010 memorandum (including review and records search) was conducted to update and supplement the 2004 Initial Site Assessment, as needed. Both 4612 and 4632 Kiernan Court were identified in the records search included in the Phase 1 Initial Site Assessment. Not addressed in the environmental documentation was the transportation of petroleum and chemical products as a result of the full and partial land acquisitions. This impact is addressed in the Hazardous Waste and Materials section in the final environmental.

Response GWL-4: The Caltrans employees who requested to enter the premises on or about December 8, 2010 are part of the Caltrans' Relocation Assistance Program. This assignment to enter the premises is separate from the environmental review and does not affect the environmental review process. The project would require acquisition of 4612, 4632 Kiernan Court. The full extent of the acquisition (partial or full) will not be known until the final design is complete for the preferred alternative (Alternative 1) in the year 2011.

After the environmental document is approved, Stanislaus County would start a right-of-way acquisition with Caltrans oversight. Right-of-way acquisition would occur sometime from 2011 to 2012.

Jeff Barnes, individual (December 6, 2010)



Route 99/219 (Kiernan Avenue) Interchange

Comment Sheet

Name (Please print): Jeff Barnes Date: 12-6-10

Mailing address:

Resident, Business, Organization, etc.:

Phone:

Email:

Comments: Please select alternative 2.
Better safety and capacity

JB-1

Project Hotline: (209) 464-8707, ext. 101 or toll-free (877) 464-4350
Email: Hotline@buethecommunications.com
Write: Public Outreach Coordinator
Route 99/219 (Kiernan Avenue) Interchange
P.O. Box 773
Stockton, CA 95201-0773

Response to Jeff Barnes, individual (December 6, 2010)

Response JB-1: Thank you for your comment on the project and your support of Alternative 2. However, based on several considerations, including cost and other design considerations, Alternative 1 has been selected as the preferred alternative.

Michelle Barnes, individual (December 6, 2010)



Route 99/219 (Kiernan Avenue) Interchange

Comment Sheet

Name (Please print): Michelle Barnes Date: 12/6/10

Mailing address: _____

Resident, Business, Organization, etc.: _____

Phone: _____ Email: _____

Comments: Please select alternative 2.

MB-1

Project Hotline: (209) 464-8707, ext. 101 or toll-free (877) 464-4350
Email: Hotline@buethecommunications.com
Write: Public Outreach Coordinator
Route 99/219 (Kiernan Avenue) Interchange
P.O. Box 773
Stockton, CA 95201-0773

Response to Michelle Barnes, individual (December 6, 2010)

Response MB-1: Thank you for your comment on the project and support of Alternative 2. However, based on several considerations, including cost and other design considerations, Alternative 1 has been selected as the preferred alternative.

Tom Burns, Salida Fire District Board of Directors (December 6, 2010)



Route 99/219
(Kiernan Avenue)
Interchange

Comment Sheet

Name (Please print): TOM BURNS Date: 12-6-10

Mailing address: _____

Resident, Business, Organization, etc.: SALIDA FIRE DIST. Bd. of DIR.

Phone: _____ Email: _____

Comments: This project is long overdue - something needs to change to manage traffic at this interchange. Alternative #2 makes most sense.

TB-1

Both alternatives, however, will make use of fire station #1 difficult or impossible to do safely. Both alternatives effectively will require us to move the station, so a complete parcel purchase - not just the admin building - will be required.

TB-2

TB-3

Project Hotline: (209) 464-8707, ext. 101 or toll-free (877) 464-4350
Email: Hotline@buethecommunications.com
Write: Public Outreach Coordinator
Route 99/219 (Kiernan Avenue) Interchange
P.O. Box 773
Stockton, CA 95201-0773

Response to Tom Burns, Salida Fire District Board of Directors (December 6, 2010)

Response TB-1: Thank you for your comments on the project and your support of Alternative 2. However, based on several considerations, including cost and other design considerations, Alternative 1 has been selected as the preferred alternative.

Response TB-2: A Traffic Management Plan would be prepared to address short-term disruptions in existing circulation patterns during construction; for example, the Traffic Management Plan would identify the locations of temporary detours or temporary roads to facilitate local traffic circulation, emergency vehicle access to and from the Fire Station 1 and through-traffic requirements.

The project's special provisions of the highway contract would require that emergency service providers (law enforcement, fire protection, and ambulance services) be given adequate advance notice of any street closures during the construction phases of the proposed project. Should these closures affect Station 1 access, the Fire District would be provided ample opportunity to adjust as needed to avoid safety concerns.

At 2035 build-out, each of the build alternatives would reduce the systemwide number of hours of delay compared to the no-build alternative. This includes the intersection at East Broadway and Salida Boulevard where Station 1 is located. Levels-of-service would be improved for both morning and afternoon peak hours.

The design for both build alternatives would include an emergency signal for emergency vehicles exiting Station 1 onto Salida Boulevard. This signal would provide safe emergency response out of the station in both travel directions on Salida Boulevard.

Response TB-3: Currently, the design for both build alternatives includes a partial land acquisition of the Fire District's administration building. All relocation would comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. All acquisition discussions would be directed to accomplish the end result: that the Fire District receives just compensation that is also just and fair to the public; that every courtesy, consideration, and patience is extended to the property owner; and that a feeling of confidence and respect by the Fire District is fostered toward Caltrans and its employees.

All offers would represent the best and most current estimate of market value determined through sound, approved appraisal and acquisition practices. Prior to any discussion on the terms of the Right of Way Contract and the compensation to be paid, the Fire District would be given full information on the following as required under Caltrans Right of Way Manual requirements:

- The role of the Department (Caltrans) and its acquisition functions.
- The necessity for the proposed transportation improvement.
- Project design and how the proposed improvement will affect the property.
- The ability of the appraisal staff and the honest and sincere effort that has been made to determine the market value of the property. During the course of acquisition discussion, agents must remember that they are representing the interest of the public as well as that of the Fire District, particularly if the Fire District is unfamiliar or inexperienced in the real estate transaction and real estate values.

The Salida Fire District has the right to hire an independent appraiser at the expense of Caltrans to determine the market value of the property.

Joe Neal, individual (December 6, 2010)



Route 99/219 (Kiernan Avenue) Interchange

Comment Sheet

Name (Please print): JOE NEAL Date: 12-6-10

Mailing address:

Resident, Business, Organization, etc.:

Phone:

Email:

Comments: BOTH of these alternatives are STOP GAP MEASURES.

I think a more definitive solution would be an elevated off ramp coming from the North which would curve over 99 to connect with 219 (similar to the off ramp & connection to the cross-town freeway in STOCKTON). -- traffic from the south would easily merge into ~~the~~ 219 and THE KIERNAN - CLARIBEL NORTH COUNTY CORRIDOR.

JN-1

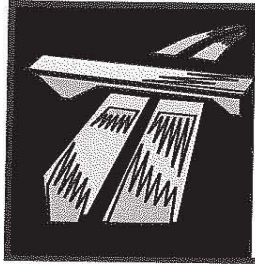
Project Hotline: (209) 464-8707, ext. 101 or toll-free (877) 464-4350
Email: Hotline@buethecommunications.com
Write: Public Outreach Coordinator
Route 99/219 (Kiernan Avenue) Interchange
P.O. Box 773
Stockton, CA 95201-0773

Response to Joe Neal, individual (December 6, 2010)

Response JN-1: Thank you for your comment on the project. The interchange design for each build alternative considers full build-out of the Salida Community Plan and forecasts volumes for 2035 traffic. At the 2035 build-out, each of the build alternatives would reduce the systemwide number of hours of delay compared to the no-build alternative. Fewer hours of delay mean improved traffic operations and reduced travel time through the interchange. Under both build alternatives, all intersections with signals would improve to acceptable levels (level-of-service D or better) except for the Indian Ridge Lane/State Route 219 (Kiernan Avenue) and Kiernan Court/State Route 219 (Kiernan Avenue) intersections, which would continue to operate unacceptably under both the no-build and build alternatives. Delays show notable improvement in the 2015 analysis with the build alternatives, but deteriorate somewhat by 2035 as a result of projected traffic increases.

A variety of design alternatives were studied during the Project Study Report phase of the project. Issues reviewed in the Project Study Report included, but are not limited to, future traffic capacity, environmental impact, right-of-way impacts, project costs and design feasibility. A discussion of alternatives considered but eliminated from further discussion can be found in Section 1.3.5 of this document. After careful review of the varied alternatives, the project development team eliminated alternatives that did not meet the project objectives, as well as those that were clearly inferior or cost prohibitive. Remaining alternatives are those identified in the environmental document. While the County and Caltrans appreciate your suggestion for an alternative, it does not meet the parameters identified for the project.

Paul Rumble, individual (December 6, 2010)



Route 99/219 (Kiernan Avenue) Interchange

Comment Sheet

Name (Please print): PAUL B. RUMBLE Date: 12-6-2010

Mailing address:

Resident, Business, Organization, etc.: A FARMER

Phone: _____ Email: _____

Comments: *We at one time owned warehouses, packing sheds etc on Salida Boulevard, but since this don't affect us now I believe it is a good project for the future safety. But where does the money come from.*

Altim # 2 good

PR-1

PR-2

Project Hotline: (209) 464-8707, ext. 101 or toll-free (877) 464-4350
Email: Hotline@buethecommunications.com
Write: Public Outreach Coordinator
Route 99/219 (Kiernan Avenue) Interchange
P.O. Box 773
Stockton, CA 95201-0773

Response to Paul Rumble, individual (December 6, 2010)

Response PR-1: Thank you for your comments on the project. The project is anticipated to be funded by a combination of local and state funds. Stanislaus County has adopted and is already collecting traffic mitigation funds through the County Transportation Facilities Public Facility Fee program. Stanislaus County is in the process of applying to the California Transportation Commission for funding of the project, with savings from the State Route 99 Bond Fund in fiscal year 2011. This funding requires the project to be accelerated to start construction by 2012.

Response PR-2: Thank you for your support of Alternative 2. However, based on several considerations, including cost and other design considerations, Alternative 1 has been selected as the preferred alternative.

Kamaljit Kaur, House of Liquor (December 6, 2010)



Route 99/219
(Kiernan Avenue)
Interchange

Comment Sheet

Name (Please print): KAMALJIT KAUR Date: 12/19/10

Mailing address:

Resident, Business, Organization, etc.: House of Liquor

Phone:

Email:

Comments: SIR OR Madam. Hello,

My Name is Kamaljit Kaur, I just Buy my Business
Called (House of Liquor, 4702 Broadway, Salida, CA 95368)
in Jan 2010. I Spend Lot of Money to Remodel the STORE.
I have two kids 9 1/2 and 6 1/2 years old I tried to Be Living
good Life This new Construction HURT My Business alot
Because we Survive on traffic easy in and out, this Long
Period Construction gonna Dstroy our Business, So, Please think
again to Spend that Much Money where you have to help
People not HURT the Business, The Business who Collect the
Revenue and Paid to all Govt again please think
About Little People, Small Business, who Lived on day today

KK-1

Project Hotline: (209) 464-8707, ext. 101 or toll-free (877) 464-4350
Email: Hotline@buethecommunications.com
Write: Public Outreach Coordinator
Route 99/219 (Kiernan Avenue) Interchange
P.O. Box 773
Stockton, CA 95201-0773

Business,
Thanks A lot
Kamaljit Kaur

Response to Kamaljik Kaur, House of Liquor (December 6, 2010)

Response KK-1: Thank you for your comment on the project. A Traffic Management Plan would be prepared to address short-term disruptions in existing circulation patterns during construction; for example, the Traffic Management Plan would identify the temporary detours or temporary roads to facilitate local traffic circulation and through-traffic requirements.

Construction activities would be coordinated to avoid blocking or limiting access to your business to the extent possible. The property owner would be notified in advance regarding potential access or parking issues before construction activities begin. The County and Caltrans would work with the contractor to minimize the disruption to your business, including the length of time required to complete the construction process in front of your business. The intent is to avoid or minimize loss of business to the extent practicable.

A Caltrans' Relocation Assistance Program representative would evaluate your business and determine and explain all options available to you to prevent any financial hardships to your business.

Comments submitted to the Court Reporter at the Public Hearing on December 6, 2010

HEARING - STATE ROUTE 99-219 INTERCHANGE - 12-6-10.txt

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PUBLIC HEARING FOR THE STATE ROUTE 99/219
(KIERNAN AVENUE) INTERCHANGE

December 6, 2010 at 6:00 p.m.

Before: Trevor McCutchen, CSR 13498

Taken at:

NICK W. BLOM SALIDA REGIONAL LIBRARY
4835 Sisk Road
Salida, California 95368

□

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1
2

APPEARANCES

Page 1

Comments submitted to the Court Reporter at the Public Hearing on December 6, 2010

3 HEARING - STATE ROUTE 99-219 INTERCHANGE - 12-6-10.txt
4 RAJAPPAN & MEYER
5 BY: KEITH G. MEYER, PE
6 1038 Leigh Avenue, Suite 100
7 San Jose, California 95126
8
9 FEHR & PEERS
10 BY: RYAN MCCLAIN, PE
11 100 Pringle Avenue, Suite 600
12 Walnut Creek, CA 94596
13
14 COUNTY OF ENGINEERS ASSOCIATION OF CALIFORNIA
15 BY: MATT MACHADO, DIRECTOR OF PUBLIC WORKS
16 1010 10th Street, Suite 3500
17 Modesto, CA 95354
18
19
20
21
22
23
24
25

2

□

1 Craig Coker

2

3

4 Alternative One is the only way to go -- Project One --
5 provided we maintain our driveways on Broadway to the liquor
6 store and the used car lot. Two separate driveways. And you

CC-1

Comments submitted to the Court Reporter at the Public Hearing on December 6, 2010

7 HEARING - STATE ROUTE 99-219 INTERCHANGE - 12-6-10.txt
8 don't want to hear my bitching because it's worthless. The
9 thing that exasperates us is that this intersection has been
10 jackhammered up for three years.

11 They just finished the project. The new modification
12 that they just did for the on- and off-ramps has totally
13 eliminated any problems that were there. It's great since
14 they redid the on- and off-ramps, and that's been in the last
15 30 days. I don't see any reason to even redo the
16 intersection now. But, if they want to go ahead with Project
17 Two, I would need to fight in Sacramento to have this whole
18 project investigated about what kind of money has been spent
19 on this intersection in the last three years.

CC-2

20 Project One is feasible. The other one is pie in the
21 sky. Project Two is pie in the sky, waste of money, disrupts
22 all kinds of businesses.

CC-3

23 --o0o--
24
25

3

□

1 Douglas Joe

2

3

4

5 I'd like to make sure that the Kiernan Avenue
6 interchange excludes the possibility of the North County
7 corridor being attached to the Kiernan interchange for the
8 possibility of saving money in the future because of the bad
9 economy.

DJ-1

9

--o0o--

10

Comments submitted to the Court Reporter at the Public Hearing on December 6, 2010

11 HEARING - STATE ROUTE 99-219 INTERCHANGE - 12-6-10.txt
12 Don Beachler

13

14

15 Money is very very short. Wait until the economy is
16 better, and then do it.

DB-1

17

18

19 Marcie Powell

20

21

22 I prefer Alternative Two. And I want to make sure that
23 the landscaping is at least as good or better than current.

MP-1

24

25

MP-1

--o0o--

4

□

1 MR. MEYER: At this time I can answer any
2 questions. Yes, sir?

3 THE PUBLIC: I know you want to talk about the
4 interchange going through to Oakdale, but I understand that
5 Kiernan is a great possibility after everything we looked at.
6 So where are we heading in the project here? Have we
7 considered that? I mean, are we thinking -- are we looking a
8 little bit ahead?

9 MR. MEYER: The issue that the traffic coming down
10 the pike --

11 THE PUBLIC: Well, yeah. If you're going to --

12 MR. MEYER: -- if it connects up, is going to be
13 able to get through this interchange? I absolutely agree.

14 THE PUBLIC: And then Part two is -- you're

Comments submitted to the Court Reporter at the Public Hearing on December 6, 2010

15 HEARING - STATE ROUTE 99-219 INTERCHANGE - 12-6-10.txt
16 talking about Pelandale. We know that's a nightmare there.
17 Probably, to me, ten times worse than this is right now. So
18 my question would be -- you were talking about the
19 interchange. Has anybody considered if we're going to do
20 something crazy here or possibly make it where both of them
21 flow better instead of doing all this and then jumping just
22 about a quarter mile down the road?
23 I mean, is there a possibility, like, when you're
24 pulling out, like you were saying -- which I honestly don't
25 want because it extends through my property. But if that is
the chosen one, isn't there a possibility to make it big

5

□

1 enough where you could eliminate that off-ramp and make it to
2 where they both circle?
3 MR. MEYER: That's a very interesting question.
4 THE PUBLIC: I just hope we're thinking a little
5 bit outside of the box here.
6 MR. MEYER: Sure. I'm going to answer your second
7 question first. Does somebody want to field the Pelandale
8 comment? The City of Modesto is underway with design of the
9 Pelandale interchange. And it's already -- oh, I brought the
10 heavy hitter Matt Machado, Director of Public Works for the
11 County. Pelandale is under design. It's gone through this
12 environmental process. An alternative has been collected.
13 we're moving forward with the design.
14 One of the -- we call it a game. One of the points at
15 which you need to have a project ready to capture funding in
16 the State of California is that you have to get it designed.
17 Once it has gone through environmental clearance, once you're
18 ready to -- you can start firing right-of-way, you need to

Comments submitted to the Court Reporter at the Public Hearing on December 6, 2010

19 HEARING - STATE ROUTE 99-219 INTERCHANGE - 12-6-10.txt
get the plans design, and that's what the city is doing now.
20 Because without a set of plans, that's the first question
21 that those who offer funding ask. "Are you" -- if you have
22 money. It's the same thing with the federal TIGER grants,
23 the stimulus. "Are you ready to build something? And if
24 you're not, then you're out of the game."
25 So that's sort of where they're at with Pelandale. And

6

1 maybe, Ryan, you can talk about traffic, or even both.

2 MR. MACHADO: Maybe I can add a little bit to the
3 Pelandale. So we were looking at the Kiernan Interchange and
4 how to move forward and determine the funding being
5 coordinated very closely with the City of Modesto. And, in
6 fact, we're both looking at the same funding pot. Kiernan
7 scored a bit higher. Modesto recognized the need for
8 clearance, not only to serve the Salida area, but even the
9 North Modesto. And so we coordinated very closely between
10 the two projects, recognized the need for both of them.

11 They fully support the movement of Kiernan because it
12 scored a bit higher at the state level for funding. And so,
13 you know, we are trying to move forward with the construction
14 projects. They also are moving forward with the construction
15 projects. But at this point they don't have all their
16 funding lined up, so it's not quite in the view at this
17 point.

18 One other thing I wanted to add on the Pelandale --
19 Keith mentioned a 40 percent increase on Kiernan in traffic
20 in the last two years. Pelandale has seen an increase of 16
21 percent. So both corridors have seen an increase of traffic
22 volumes in just the past two years. And so even though it

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23 would be nice to consolidate them into one large interchange,
24 with the kind of traffic we see today and projected in the
25 very near future, it's not possible to create a

7

1 super-interchange to create both. And both will be needed.
2 And Ryan can address that with details.

3 MR. MCCLAIN: Yeah. In our traffic modeling, we
4 took into account improvements at Pelandale that were
5 expected, that were considered, and could have routed some
6 traffic up Salida or wherever. So that was taken into
7 account on the designs at this point as far as where traffic
8 was coming from and everything.

9 MR. MEYER: North County, how does that tie in?

10 MR. MCCLAIN: As far as the North County corridor
11 goes, that's -- right now the assumption is that that will
12 connect at Hammett. That is what the regional transportation
13 model is set up to do. So we had to go with that as to what
14 our traffic estimates would be. So the two things that are
15 in for that is that that's connecting up with Hammett, and
16 that a certain amount of improvement would be done at
17 Hammett, obviously to accommodate that additional project.

18 MR. MACHADO: But just for the North County fans in
19 the audience this evening, that doesn't preclude us from
20 using Kiernan for the North County corridor. That's still a
21 viable alternative that we're looking at.

22 MR. MEYER: Have you done any sensitivity testing
23 on this interchange if North County came down to Kiernan?
24 And would that traffic bleed over here or not a whole lot?

25 MR. MACHADO: We haven't got quite that far yet.

8

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1 MR. MEYER: Okay.

2 MR. MCCLAIN: But we did assume that Kiernan would
3 be wise to direct flow right in here.

4 THE PUBLIC: But this is a big project, as we all
5 know. Any project like this is big when you're adding, you
6 know, overpasses and all that. But, like, if you would --

7 MR. MEYER: well --

8 THE PUBLIC: -- if you'd have consideration, you
9 know.

10 MR. MEYER: You know, in fact, there has been in
11 the sense that the county has requested -- because we don't
12 know the status of that alignment, the county had requested
13 us to get back to that advised -- had requested us to create
14 a higher level of service, Service C, which is a good level
15 of service. The state will allow us to go down to a level of
16 service, Service D, which is congested, but still not
17 failing.

18 Because of the unknown factor here, we thought it's
19 prudent to have a little excess capacity available in there
20 in case additional traffic does come down Kiernan. So by
21 design, we've got a little bit of availability already built
22 into this design that can account for some additional traffic
23 coming down. Is that a fair statement, Matt?

24 MR. MACHADO: Yes.

25 THE PUBLIC: Are you saying, then, that if the

9

1 choice was to use Kiernan instead of a new North County
2 freeway, that this Alternative Two interchange could handle
3 it?

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4 MR. MEYER: It has more capacity to handle it than
5 Alternative One. I'm positive about that statement.

6 MR. MACHADO: But I do think that the North County
7 corridor is going to heavily rely on Hammett and Kiernan
8 both, and where the alignment falls. If it goes north early
9 or goes north late, there's going to be activity any way you
10 slice it because they're relatively close. They're within a
11 mile of each other. So no matter where the North Hammett
12 corridor goes, it's going to need both of these interchanges.
13 And it will probably use up a lot of this capacity that we're
14 trying to create in there.

15 MR. MCCLAIN: But again, some of that was
16 accommodated or was looked at.

17 MR. MEYER: That's a good point, and that's a good
18 element. The county is also moving forward on the Hammett
19 interchange as a separate project, separate analysis. That's
20 an important part in -- that interchange will -- needs to
21 accommodate the traffic that's coming through the North
22 County corridor, at least with the way it's considered in the
23 digital model.

24 THE PUBLIC: Do you know -- you mentioned federal
25 funding. Do you know at this point if you were to go with

10

1 the sixty-two-million-dollar plan, how much federal funding
2 would be available for that particular plan?

3 MR. MEYER: Matt, can you answer that one?

4 MR. MACHADO: Well, we -- right now at the state
5 level, we are vying for forty-six million. That's been our
6 application, and that is for bond funds, 99 bond funds. We
7 also have -- I believe it was right about nine million that

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8 we were vying for federal funds. But the federal side of it
9 really is going to require the SAFETEA-LU Reauthorization,
10 which could occur in 2011. But there are a lot of unknowns
11 with federal government and legislation, and which direction
12 they're going to go with the transportation bill. But we do
13 have an application for the federal side. But where most of
14 our eggs are lying would be at the state level with the 99
15 bond funds.

16 MR. MEYER: There's some operational funds that --
17 shop funds that always become available. And that's been all
18 of -- the reason that there's even funding available in the
19 state has been because of the economy. The number of
20 projects that are being constructed statewide are --
21 including land development -- everything is way down. So
22 therefore, the bid prices that the contractors charge are
23 much lower than they have been in the past. Sometimes
24 they're as low as 50 percent lower than what they were four
25 or five years ago. It's truly remarkable. So what that's

11

1 done is allow the 99 bond program and other bond measures
2 that we all had several years back to realize cost savings
3 from what they were budgeted. And so that's actually new
4 projects.

5 Had the recession not occurred, there would be no money
6 for Kiernan to be vying for because there wasn't any money
7 four years ago. Because of the recession, money has -- it's
8 an interesting phenomenon. Because of the recession, now
9 money is available that this particular project competes well
10 for. And it competes well because it's connected to Route
11 219. It's connected to another state highway. It is a state
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12 highway, Kiernan is. And that's why it competes well at the
13 state. Pelandale is not a state highway, so it has to rely
14 on other competition. Yes, sir?

15 THE PUBLIC: What I've seen from all this is it's
16 been set up for a while because a lot of the stoplights that
17 are existing now -- you're talking about these loops that are
18 making it easier for right and left. The loops are already
19 there. You've got the on-ramps and off-ramps. People aren't
20 allowed to stop. I'm a driving fool. I drove over a million
21 miles here. So I know a lot about roads.

22 One of the things you guys don't do here in this plan
23 is address the issues of the stopping. We talked about it in
24 your plan, but not existing. So as things have been
25 progressing here, we've been adding stoplights, but it's

12

□

1 still not allowing people to flow. Right lane should go
2 right. They shouldn't be stopping right there. And we would
3 save a lot of money if we just do that.

4 Today, the studies that you've been doing for over a
5 year don't add up for what we have in front of us now.
6 Construction has just been started and finished by -- people
7 are saying that the paint is still wet. And we're talking
8 about reconstructing this.

9 MR. MEYER: Right.

10 THE PUBLIC: The thing about it is, we just need
11 to make the traffic flow better. I don't think you need to
12 do this big project. I don't think you need to mess with the
13 people in the area or the businesses in that area. Someone
14 should just take the initiative and just change the stopping
15 that they're doing now. I mean, that's the bottom line. Why

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16 stop when you're turning right? I mean, there's other
17 alternatives. But at least adjust the traffic flow, for
18 starters.

19 MR. MEYER: There's an interesting change that's
20 occurred over the last five years in design that's been
21 pushed by the local cities, the state government, and the
22 federal government, and that's to make all roadways -- not
23 just state highways -- but now adding interchanges. It used
24 to be that interchanges had a lot more than what you just
25 talked about, more free right turns, more loops, and

13

1 something that you didn't have to stop.

2 But now there's a very huge push over what's called
3 pedestrian-friendly design. That means that you tighten up
4 the interchange, you make the approaches, every bit of
5 automobile traffic stops. Once you stop the traffic at a
6 signal, it requires it to be larger, simply because you're
7 not allowing that traffic to flow through. It's an
8 interesting problem.

9 The pedestrian-friendly requirements, if you will, are
10 making the sizes of interchanges a little bit larger than it
11 used to be because we still have to handle the traffic
12 volume. That's happening throughout the state, where you are
13 going to see less and less of those free right turn
14 unrestricted movement. We had battled -- on our second
15 alternative, we battled a lot with Caltrans to keep that
16 right turn moving. So I appreciate that comment because it
17 is happening. I'm sure in your million miles you've seen it
18 all over the state, where everything is tightening up.

19 THE PUBLIC: Not just in this state, but other
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20 states too.

21 MR. MEYER: Yeah.

22 THE PUBLIC: But you're talking about
23 pedestrian-friendly. I mean, your loop back is a nonstop.

24 MR. MEYER: Correct.

25 THE PUBLIC: You know, so it's like double

14

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1 talking.

2 MR. MEYER: well, I don't like to double talk, but
3 I understand your concern.

4 THE PUBLIC: Are you saying the loop coming around,
5 coming underneath the overpass, that would not stop?

6 MR. MEYER: Right. That's correct.

7 THE PUBLIC: So how would pedestrians get across
8 there?

9 MR. MEYER: well, it's a trade-off. It is a
10 trade-off between traffic flow and most -- you put a little
11 pedestrian island out there, and it's usually a pretty safe
12 event because the pedestrians go out to the island. Let me
13 see if I can get to that slide real quick.

14 THE PUBLIC: Once they eliminated the island --

15 MR. MEYER: Correct.

16 THE PUBLIC: -- the little island that's --

17 MR. MEYER: That's correct. To move all over the
18 place to eliminate -- I would prefer to bring it back myself.
19 so you have a short distance for a pedestrian to get to the
20 island, and then they push a button to cross here
21 (indicating).

22 MR. MCCLAIN: But there would be a signal at these
23 two lanes where you have two right turn lanes.

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24 MR. MEYER: You have a signal for the pedestrians
25 also?

15

1 MR. MCCLAIN: Yeah.

2 MR. MEYER: Okay. So we'll have a signal for the
3 pedestrians.

4 THE PUBLIC: I was talking about the other loop
5 down here.

6 MR. MEYER: The same situation.

7 THE PUBLIC: The same situation?

8 MR. MEYER: You'll have a push button for the
9 pedestrians so they can come across.

10 THE PUBLIC: And they can come across? Okay.

11 MR. MCCLAIN: The biggest issue is where there are
12 two lanes. And so one driver will stop, and the other driver
13 will stop to see why the other is stopping, and then there's
14 a pedestrian right there.

15 MR. MEYER: Ryan tells me what I have to explain.
16 Thank you.

17 THE PUBLIC: Let's go back to this project on
18 Hammett.

19 MR. MEYER: That's another project that we're doing
20 with the county. We're just in the process of preparing the
21 draft of the environmental -- we're almost done with the
22 environmental studies. And we have two pretty nice -- one
23 extremely free-flowing alternative. It's a pretty nice
24 alternative. Matt likes that one a lot. Come back for that
25 one. We have another meeting for that one because it has to

16

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1 go through its own separate environmental clearance. Yes,
2 sir?

3 THE PUBLIC: You don't really have enough money yet
4 to build these; is that right?

5 MR. MEYER: well --

6 MR. MACHADO: No. we do have a financial plan, so
7 what we planned is the forty-six million from the state bond
8 funds, the 99 bond funding, and the savings from projects, so
9 we think that's pretty real. Then there's twenty million
10 essentially local match, and nine of it we're hoping for the
11 federal, but not counting too greatly on it. So that twenty
12 million local match would be made up of impact fees. In our
13 county that's called PFF, Public Facility Fees. So we do
14 have a plan to make that local match.

15 Now, if for some reason the state money completely falls
16 apart, then I think you're right. we don't have a plan. But
17 today with the savings that we're seeing coming out of the
18 projects nearly every month, the money will be there. And
19 the valley, from San Joaquin down to Kern, there's three
20 projects vying for this money, and there's enough savings to
21 fund all three of them. So there's no losers. So we feel
22 very confident about that bond money.

23 MR. MEYER: That being said, the Board of
24 Supervisors has authorized proceeding once a decision has
25 been made on which alternative to go with, to proceed with

17

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1 designed plans to get the project ready and competitive for
2 money that comes in. It has been truly amazing in the last
3 five years how much money has become available for various

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5 projects in all of California that wasn't there five years
6 ago.
7 THE PUBLIC: So why are they crying, "Broke"?
8 MR. MEYER: Well, because that's a bond. We all
9 voted on the --
10 THE PUBLIC: Bonds are another tax.
11 MR. MEYER: We voted on the bonds. We, the State
12 of California, voted on the bonds to -- that's correct. It
13 has to be paid for.
14 MR. MACHADO: But those bonds were sold in 2005.
15 MR. MEYER: Right.
16 MR. MACHADO: And so the original set of projects
17 were programmed in 2006. And the state can't take money out
18 of that transportation program and go fund other programs
19 because the voters said, "Yes, we want to do these
20 transportation projects up and down the valley." And in this
21 particular project, there was a portion that was bonded with
22 -- 99 bond funded a billion dollars for the 99 from way up
23 north all the way down to Kern County. And so they did
24 program it. But with the savings of those original projects,
25 we're able to fit three more projects in with the right
programming.

18

1 THE PUBLIC: It's amazing that you can't use the
2 bonds when Modesto City Schools took their bonds and did
3 something else with it.
4 MR. MACHADO: Well, when voters vote for bonds,
5 they are very specific. "We are voting for transportation on
6 the 99 corridor."
7 "Okay. Well, then that's it." And when the school

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8 votes for bonds, they say, "we're going to vote for bonds for
9 High School X or School Y," or whatever. They're pretty
10 specific. And so after the fact, you can't change it up.
11 THE PUBLIC: Matt, one more question. It sounds
12 like you're leaning towards Project Two with the amount of
13 money you're talking about. You're telling us One and Two,
14 but --
15 MR. MACHADO: It would be great, though, to save
16 twenty million local dollars. So if it works out there's
17 going to be --
18 THE PUBLIC: What's going to make your guys's
19 decision? I mean, is it us?
20 MR. MEYER: I think he talked about the process.
21 We want to get everybody's comments. We want to look at
22 those comments. We want to develop responses. We want to
23 understand what the issues are. And if there's not a fatal
24 flaw in either alternative, then we want to look at criteria
25 such as capacity, congestion, and safety, and make a group

19

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1 decision. But we need to wait until we get everybody's
2 comments because, you know, maybe we don't know everything
3 about it yet. Maybe we need to hear from you all. That's
4 what this process is about.
5 THE PUBLIC: It sounds like you're really pushing
6 Number Two. I have a question. On our property going down
7 the freeway there, the green grass --
8 MR. MEYER: And your property is all down here
9 (indicating)?
10 THE PUBLIC: Right. How many feet on Plan One are
11 you going to come into our property there?

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MR. MEYER: Let's look at the map.
13 THE PUBLIC: Five feet, ten feet, twenty feet?
14 See, I can see Project One because it's not affecting Volvo
15 Rents, it's not affecting the businesses. And we've put up
16 with a lot in the last few years in construction, dealing
17 with dust, and all kinds of stuff.
18 MR. MEYER: This is pretty representative here.
19 THE PUBLIC: It's going to affect businesses,
20 either -- let me just clarify. Number Two takes him out.
21 You see? Number Two takes them out totally.
22 MR. MEYER: Let's look at this. This is the exit
23 ramp southbound. We've got some trees that's right about
24 there (indicating). This pushes out 15 feet or so.
25 THE PUBLIC: Yes. See, that's not much.

20

1 MR. MEYER: And then the next alternative, of
2 course, as I said, is a very significant impact. It's a much
3 bigger footprint. We know that.
4 THE PUBLIC: Yeah. I mean, I can see One because
5 it really doesn't affect the businesses that much, and it's
6 twenty million dollars less.
7 MR. MEYER: Those are two big criteria for the
8 interchange.
9 THE PUBLIC: And I think that Joe had mentioned
10 this, that the timing of the stoplights could really improve
11 things especially down Pelandale. If anybody goes down
12 Pelandale, the stoplights are a nightmare.
13 MR. MEYER: Well, it's a bad configuration.
14 THE PUBLIC: What's the construction time
15 difference between One and Two?

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16 MR. MEYER: Six more months at least. This
17 gentleman has been patiently waiting.
18 THE PUBLIC: What accounts for this 40 percent
19 increase in traffic in two years on Kiernan -- I assume going
20 both ways -- in an economy that's flat on its back?
21 MR. MEYER: Maybe Matt can address that.
22 THE PUBLIC: And then 16 percent on Pelandale.
23 Again, the economy just sucks. And where are these people
24 going? Do you guys ever do destination studies?
25 MR. MACHADO: Well, we haven't done a destination

21

1 study, but I can tell you a few factors. First of all, with
2 the 219 widening, I think it's a bigger attraction.
3 THE PUBLIC: So it's dropping in someplace else?
4 MR. MACHADO: Well, that's what you think. And so
5 in Pelandale, you think the same thing. There's a new
6 attraction. It's wider, it goes through more, there's more
7 signal lights today. And so there's a little more attraction
8 to both facilities. And then there's a couple new facilities
9 out there. Kaiser is more up and running today. Gregori
10 High is up and running today. There's a handful of new uses
11 out there that are creating those trips and are using the
12 facilities that you may see out there.
13 MR. MEYER: A lot of that is part of the Salida
14 plan. Little pieces are still -- even though they might be
15 on the -- there's a public side. There's a lot in that plan.
16 There's a lot in the development plan, and it's not only land
17 development. That's only one piece of it. There's public
18 infrastructure, there's schools. It's all part of that plan.
19 As they come in, they generate traffic. People need to go to

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the hospital or they need to go to school.

21 And when it is improved, it does take traffic from you
22 because Kiernan is getting improved. The problems for the
23 interchange is that, you know, you make -- it's a problem for
24 all projects. You make an improvement for one place, and
25 that sort of has a shotgun effect down to the next place, and

22

1 you keep moving to the bottom.

2 THE PUBLIC: Is it going to kick more development,
3 though? I mean, if this interchange goes in and Pelandale
4 gets improved, can we just kiss off all the orchards for,
5 you know, five miles around us at this point?

6 MR. MEYER: well, if you look at some of these
7 notations, these are already factored in, industrial plans,
8 future businesses. These are part of the plan that generates
9 the future traffic that we design the interchange to. So the
10 answer is "yes" to your question about if all the orchards go
11 away. That's the plan. That is exactly what that plan does.
12 It takes that land and it takes it to a higher use. Yes,
13 sir?

14 THE PUBLIC: Okay. Being born and raised around
15 here and seeing all the development that's come and gone,
16 yeah, it seems like there's less traffic on Kiernan right now
17 because of the widening of the lanes. But it still goes
18 down. It still narrows. Even if you approve this one here,
19 Plan One or Plan Two, going into Salida, you still have one
20 road in and one road out. So, I mean, even if you take out
21 that intersection there, you're still kind of screwed there.

22 MR. MEYER: That's true.

23 THE PUBLIC: I mean, Salida was about 2,000 when I

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24 was growing, and now it's probably over 12,000 or so.

25 MR. MEYER: That's correct.

23

1 THE PUBLIC: So you still have a heck of a lot of
2 traffic coming out of Salida. Yeah, it's backing up the
3 intersection, but you really haven't done anything except
4 lengthen part of the backing up by taking one of the
5 intersections out.

6 MR. MEYER: What you try with these projects --
7 maybe you can address what's going on as things get down to
8 two lanes.

9 MR. MACHADO: Sure.

10 MR. MEYER: But what we try to do is -- because the
11 interchange is a major terminal point of traffic. People
12 come into and out of 99.

13 THE PUBLIC: Right.

14 MR. MEYER: It will always be a focal point. And
15 as traffic gets further away from 99, it'll always decrease.
16 That doesn't mean that you don't need improvements at those
17 furthest away places because you do need them. I think part
18 of the solution is the North County corridor for a lot of
19 that future circulation.

20 MR. MACHADO: And I think maybe the more immediate
21 project or effort is the continuation of the 219 widening.
22 And we can all see what Phase One did. It went from pretty
23 much 99 or Sisk Road to Dale. And then Phase Two will go
24 from Dale Road to McHenry. Same look as you see here in the
25 Salida area. And then from McHenry going east, that will be

24

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1 a county project, and that will go to Oakdale Road.

2 THE PUBLIC: See, if you do Alternative One there,
3 you lose all the businesses there. Why don't you guys build
4 that, and the county put their twenty million into fixing
5 Salida?

6 MR. MACHADO: Maybe I'm not catching the Salida
7 part, but you're talking about --

8 THE PUBLIC: Because you have one lane going in and
9 one lane going out of Salida.

10 MR. MACHADO: You're talking about Broadway?

11 THE PUBLIC: Broadway, yeah.

12 MR. MACHADO: I think a lot of the traffic
13 congestion is coming from the northeast, and they're trying
14 to access the freeway. So there may be some congestion on
15 Broadway.

16 THE PUBLIC: There's actually both. Maybe you
17 ought to be at Broadway at 8:00 o'clock in the morning, pal.
18 That's the thing.

19 MR. MEYER: It gets very congested through there.
20 And that's because it nicks down to pretty much one lane.
21 And that would be a massive effort to figure out a solution
22 for --

23 THE PUBLIC: Yes. Right.

24 MR. MEYER: Yes, sir?

25 THE PUBLIC: Have you guys done any studies that

25

□

1 say at 8:00 o'clock in the morning, what percent of traffic
2 coming out of Salida is going on 99 either southbound or
3 northbound, or what percent is going down Kiernan Road on --
4 heading out, and what -- if it's all the traffic coming down
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5 219, what percent of that is turning onto 99?

6 MR. MEYER: I recall seeing early on in the
7 development of the master plan, Traffic For Salida Area plan,
8 information like that.

9 Is that something that you use, Ryan, to factor in how
10 the traffic turns?

11 MR. MCCLAIN: Yeah. It's a high percentage coming
12 from east getting on the freeway there. And we -- you know,
13 to start this --

14 THE PUBLIC: Okay. Now, you say "high." Is most
15 of that going southbound? Because the southbound ramp is the
16 one you want to make bigger. So are we going southbound to
17 northbound or what?

18 MR. MCCLAIN: Let's see. Well, one of the major
19 movements is coming southbound and then turning left onto
20 219.

21 MR. MEYER: This movement coming south wanting to
22 go east. That's the largest movement in the interchange.
23 The problem with that movement is that it has to cross -- it
24 has to deal with pedestrians, it has to deal with other
25 left-turn vehicles, and so it has a limited amount of green

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1 signals, go, that you can allocate to that left-turn
2 movement.

3 That's why these diamond -- we call them diamond because
4 it looks like a diamond -- diamond interchanges get congested
5 very fast because you always have to stop at that left turn
6 to make it across. And if it isn't timed just perfectly,
7 you're going to get a red light here (indicating). You make
8 a left turn, you're going to get a red light there

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9 (indicating). So you're constantly stopping through these.
10 THE PUBLIC: I agree. As soon as you come off the
11 freeway and make a right-hand turn, make a U-ey in the liquor
12 store, you have to --
13 THE PUBLIC: So you're one of the son of a guns
14 that's doing that.
15 MR. MEYER: Oh, okay. I guess Judith is quietly
16 yelling at me back there. We're going to be around till --
17 oh, it's already 7:30. We're having too much fun. We'll be
18 around here at least till 8:00.
19 MS. BUETHE: We must be out at 8:00.
20 MR. MEYER: Oh, really? Okay. Well, we have
21 recorded every one of your comments and questions here
22 tonight.
23 --o0o--
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□

1 Helder Garcia
2
3
4 My biggest concern is that they're taking half my
5 business where the loop comes through. And like I was
6 telling him, my concern is -- it's not my concern. They're
7 saying that they're going to buy this one piece of property
8 from me, but they're destroying what I'm doing over here.
9 That's my shop. So it's -- they both go hand in hand, you
10 know what I mean? So as I explained to them, when they come
11 through like that, I don't know where to go. What do I do
12 now? I mean, it's a family-owned business. We're sitting
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HG-1

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13 here. I have no place. Matt even said, "Let's put the shop
14 on your existing property." I'm out of room as it is, in a
15 sense, you know what I mean? So I don't know. Where do I
16 go?

17 I chose to put the business, when I bought this, at the
18 highest point in the market, but I want it to be in the north
19 side of town. So I don't have a lot of choices. I mean,
20 it's not hard to see. Where do I put a room there? You
21 know, they don't want us in certain areas. So it's a big
22 concern for me. I have no room to go. So to move my whole
23 location? I mean, I'm still sitting there after four years.
24 You're still building. You're still adding things on. And
25 now it's like I can't even imagine having to uproot the whole

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□

1 thing.

2 All the radio, TV advertising to say where we're at.
3 And the hundreds -- I mean, hundreds of thousands of dollars
4 I've spent, you know what I mean? And then for me to have to
5 uproot all that and try to relocate, it's devastating.
6 That's definitely devastating for our business. I don't know
7 how I'll ever put a price on it. I don't know. And that's
8 looking at him from Project A to B. There's very little
9 difference. And twenty-two million dollars? I mean, I just
10 hope there's a way for them to -- you know, because to start
11 all over, it'd probably take me, literally from today,
12 probably two years to rebuild. They're saying, "In a year."
13 I mean, I'm talking about rebuilding 20,000 square foot of
14 building.

15 And my biggest concern is that we have a batch plant, we
16 have fuel cells, we have propane tanks. we have so much. we

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17 have pressure washers, wash racks, and everything. We bought
18 permits and everything to do all this. And just to have to
19 redo all this would be devastating. I mean, it's not even
20 been there 20 years. We're talking about -- we just got
21 established. People know where we're at. Our business is
22 starting to head in the right direction.

23 They basically take one hand away. That's basically
24 what they do. Because there's no way I can run one without
25 the other, you know. We fix it here, and then we run it over

29

1 here. And they're taking half our place. So I'm hoping that
2 they could reconsider and look at different options.

3 --o0o--

4
5 Don Beachler

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7
8 If you use model Number Two, try and make the corridor
9 go down Kiernan. It'd sure save a lot of disruption out
10 there. There's good farming out there, and that's my
11 feelings.

DB-2

12 --o0o--

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1 STATE OF CALIFORNIA)
2 COUNTY OF STANISLAUS) ss

3 I, Trevor McCutchen, do hereby certify that I am
4 a licensed Certified Shorthand Reporter, duly qualified
5 and certified as such by the State of California;

6 That the said statements were by me recorded
7 stenographically at the time and place herein mentioned;
8 and the foregoing pages constitute a full, true, complete
9 and correct record of the statements given;

10 That I am a disinterested person, not being in any
11 way interested in the outcome of said action, or
12 connected with, nor related to any of the parties in said
13 action, or to their respective counsel, in any manner
14 whatsoever.

15 DATED: December 8, 2010

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TREVOR MCCUTCHEN, CSR. #13498

Response to Comments submitted to the Court Reporter at the Public Hearing on December 6, 2010

Response CC-1 (Craig Coker, individual): Thank you for your comments on the project. Based on several considerations, including cost and other design considerations, Alternative 1 has been selected as the preferred alternative.

Response CC-2 (Craig Coker, individual): The purpose of the State Route 99/State Route 219 (Kiernan Avenue) interchange project is to reduce delays and avoid traffic backups and improve traffic operations at the interchange to meet the traffic volumes projected in the Salida Community Plan and the Stanislaus Council of Governments 2011 Regional Transportation Plan (approved July 2010). While the recent improvements you cited are intended to address current traffic issues and access, the proposed project would ultimately be necessary to accommodate traffic forecasts as outlined in the planning documents. Without these long-term interchange improvements, the local transportation systems would become severely congested and levels-of-service would deteriorate to unacceptable service levels.

Response CC-3 (Craig Coker, individual): Both the Project Study Report and Draft Project Report reviewed the project alternatives for feasibility. The County and Caltrans have concluded that both build alternatives are feasible and should be considered in the decision-making process.

Response DJ-1 (Douglas Joe, individual): Thank you for your comment on the project. The design of each build alternative for the State Route 99/State Route 219 (Kiernan Avenue) interchange includes enough capacity for any additional traffic that could be introduced by the North County Corridor if that connection occurs at the project interchange.

The North County Corridor would be evaluated in a separate environmental document and is not within the scope of this document.

Response DB-1 (Don Beachler, individual): Thank you for your comments on the project.

Response MP-1 (Marcie Powell, individual): Thank you for your comments on the project and your support for Alternative 2. However, based on several considerations, including cost and other design considerations, Alternative 1 has been selected as the preferred alternative.

Response MP-2 (Marcie Powell, individual): While the remnant properties are not planned for a future park use, the disturbed lands affected by construction would be replanted with standard replacement landscape and irrigation systems. All Caltrans-owned right-of-way would have a Caltrans Litter Abatement Plan to deal with litter along state and federal highways.

Response HG-1 (Helder Garcia, Volvo Rents Construction Equipment): Thank you for your comment on the project. Because Alternative 1 was selected as the preferred alternative, no acquisition of your property is necessary for the proposed project.

Response DB-2 (Don Beachler, individual): The design of each build alternative for the State Route 99/State Route 219 (Kiernan Avenue) interchange includes enough capacity for any additional traffic that could be introduced by the North County Corridor if that connection occurs at the project interchange.

The North County Corridor would be evaluated in a separate environmental document and is not within the scope of this document.

List of Technical Studies that are Bound Separately

Draft Relocation Statement
Air Quality Report
Air Quality Conformity Analysis
Noise Study Report
Noise Abatement Decision Report
Water Quality Report (including Storm Water Data Report)
Natural Environment Study Minimal Impact
Floodplain Evaluation Report
Farmland Conversion Assessment
Historical Property Survey Report
Archaeological Survey Report
Initial Paleontology Study
Initial Site Assessment
Scenic Resource Evaluation/Visual Assessment
Traffic Operations Analysis Report
Visual Impact Report