

10-STA-99-PM R22.0/R23.1

10-STA- 219 – PM 0.0/0.3

Program Code 400.010

EA 10-0L330K

May 2009

PROJECT STUDY REPORT

To

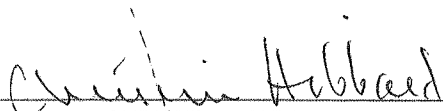
Request Project Concept Approval

On Route 99

Between 0.8 miles south of Kiernan Avenue/Route 219

And 0.4 miles north of Kiernan Avenue/Route 219

APPROVAL RECOMMENDED:


CHRISTINA HIBBARD, PROJECT MANAGER

APPROVED:



6-4-09
DATE

TONY TAVARES
Interim District 10 Director

10-STA-99-PM R21.96/R23.12
10-STA- 219 – PM 0.0/0.3
Program Code 400
EA 10-0L330K
May 2009

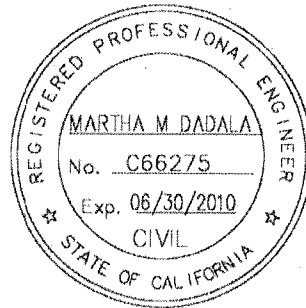
Project Vicinity Map



On Route 99
Between 0.8 miles south of Kiernan Avenue/Route 219
And 0.4 miles north of Kiernan Avenue/Route 219
In Stanislaus County

10-STA-99-PM R21.96/R23.12 and 219 PM 0.0/0.3
Program Code 400
EA 10-0L330K
May 2009

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



A handwritten signature in black ink, appearing to read "M Martha M. Dadala".

MARTHA M DADALA, P.E.
REGISTERED CIVIL ENGINEER

5/5/2009

DATE

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1. INTRODUCTION

Stanislaus County, in cooperation with Caltrans District 10, proposes to reconstruct the SR-99/SR-219 (Kiernan Avenue) interchange in the community of Salida. This project will help to alleviate traffic congestion, improve operations, and increase the capacity of the interchange. The area is experiencing increased growth due which will yield higher traffic volumes on the existing facility in the near future. Two build alternatives and the no-build are proposed for further consideration. The two build alternatives range in cost from \$45.2 to \$72.2 million (in current dollars) for construction and right of way. The project is proposed for funding by the Stanislaus County Public Facilities Fees and STIP funding.

This Project Study Report (PSR) is prepared for the purpose of providing conceptual approval for and programming of the project. The County plans to initiate PA&ED phase in January 2009, design in 2010 and construction in January 2012. A Project Report will serve as approval of the "selected" alternative.

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, but will not require a route adoption.

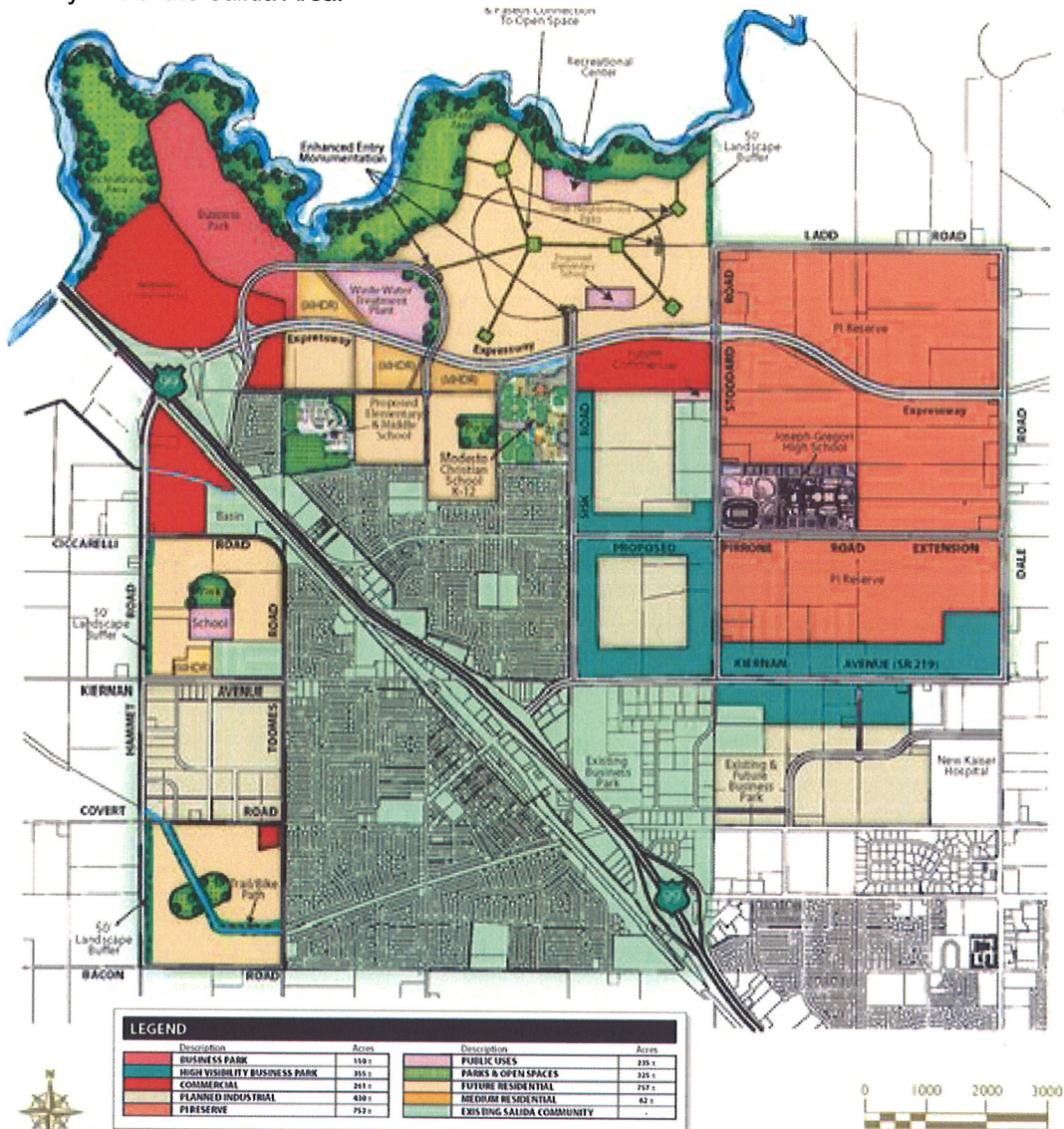
PROJECT INFORMATION:

Project Limits:	10-STA-99-PM R21.96/R23.12 and 219 PM 0.0/0.3
Number of Alternatives:	2
Alternative Recommended for Programming:	Alternative 1 – Modified Narrow Diamond Interchange
Capital Construction Costs:	\$ 36.1 million (See the Cost estimate for specific work items included in this project.)
Capital Right of Way Costs:	\$ 9.1 million
Funding Source:	PA&ED Support – Local Construction Support – Local Capitol Construction - Local/STIP
Type of Facility (conventional, expressway, freeway):	Local Interchange
Number of Structures:	1
Anticipated Environmental Determination/Document	Initial Study/Negative Declaration (CEQA) Environmental Assessment/FONSI (NEPA)
Project Category	3

2. BACKGROUND

The SR-99/SR-219 (Kiernan Avenue) interchange is located in the north part of Stanislaus County and on the northern edge of the City of Modesto, providing access to commercial and residential properties in the Community of Salida. This area is undergoing rapid commercial and residential development and has resulted in generating considerable traffic to the interchange. During peak traffic periods, the SR-99/SR-219 (Kiernan Avenue) interchange operates at level of service E/F conditions. Stanislaus County has collected developer fees for improvements to the interchange. Caltrans recently implemented an interim project for minor improvements at the interchange to provide temporary traffic congestion relief.

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 SR-99 at the far northern end of the county puts it within 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 will not be adequate to accommodate forecasted traffic. The proposed interchange improvements include reconstruction of the existing interchange to provide improved operations for turning movements to and from SR-99, as well as associated local road improvements at adjacent intersections. The Proposed Project consists of two components: 1) reconstruction of interchange at SR-99/SR-219 (Kiernan Avenue) and 2) construction of auxiliary lanes in both northbound and southbound directions of SR-99 from Kiernan Avenue to Pelandale Avenue including installation of ITS elements.

Attachment A provides the Project Vicinity Map.

3. PURPOSE AND NEED STATEMENT

3.1 Purpose

The purpose of the proposed project is to increase capacity to meet forecasted traffic demands at the SR-99/SR-219 (Kiernan Avenue) interchange.

The interchange ramps and local road intersections are proposed to be widened to provide improved operations for turning movements to and from SR-99. The proposed SR-99/SR-219 (Kiernan Avenue) interchange improvements also include the construction of SR-99 northbound and southbound auxiliary lanes between Kiernan Avenue and Pelandale Avenue interchanges, which would improve merge and diverge characteristics in this section. The existing SR-219 bridge structure will be replaced to provide 16.5 feet of minimum vertical clearance over the SR-99 traffic lanes.

3.3 Need

The need of the project is due to anticipated congestion and inadequacy of the existing interchange to accommodate future traffic needs.

Without improvement, the future levels of service at the existing ramp intersections would degrade to LOS F. Traffic at the ramp terminals would back up onto the SR-99 freeway exit ramps and cause significant congestion to SR-99 mainline operations.

The storage length available to accommodate forecasted westbound traffic is inadequate and would result in long queues and congestion in the through lanes on Kiernan Avenue.

3.3 Traffic Data

Year 2035 traffic forecasts are presented in the report titled "Traffic Forecast Results for: Hammett Road/SR-99 and Kiernan Avenue (SR 219)/SR-99 Project Study Reports", December 28, 2004, updated on April 12, 2007. These traffic forecasts were approved by Caltrans Traffic Forecasting Division in May 2007. The average daily bi-directional traffic volume for SR-99 in the year 2035 is forecasted to be 177,100 between Hammett Road and Kiernan Avenue, and 165,500 between Kiernan Avenue and Pelandale Avenue. The design year 2035 peak hour and Average Daily Traffic (ADT) volumes are provided in **Table 1**.

**TABLE 1
 DESIGN (YEAR 2035) SR-99 MAINLINE TRAFFIC VOLUMES**

Location		AM (vph)	PM (vph)	ADT
NB SR-99	Kiernan Ave. to Hammett Rd.	9,600	8,400	88,100
	Pelandale Ave. to Kiernan Ave.	9,600	7,900	84,100
SB SR-99	Hammett Rd. to Kiernan Ave.	7,300	9,900	89,000
	Kiernan Ave. to Pelandale Ave.	6,700	9,800	81,400

3.4 Accident History

Caltrans provided accident data for SR-99 through the study corridor and the interchange ramps as shown in **Table 2**. This data shows that a total of 152 accidents were reported on the mainline during the three-year period from August 1, 2004 to July 31, 2007. At the ramps, a total of 16 accidents were reported. 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 2
 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
SR-99 (PM R021.96 to PM R023.119)	157	1	34	1.07	0.007	0.23	0.90	0.014	0.32
NB Off-Ramp to Broadway/SR 219	4	0	1	0.69	0.00	0.17	0.90	0.006	0.35
SB On-Ramp From Broadway/SR 219	4	0	1	0.71	0.00	0.18	0.45	0.003	0.17
NB On-Ramp From Broadway/SR 219	2	0	0	0.29	0.00	0.00	0.45	0.003	0.17
SB Off-Ramp To Broadway/SR 219	6	0	0	0.97	0.00	0.00	0.90	0.006	0.35

Source: Caltrans District 10 TASAS data between 08/01/2004 and 07/31/2007.

4. DEFICIENCIES

4.1 Traffic and Level of Service

The interchange of SR-99 and SR-219 (Kiernan Avenue) is a highly traveled, narrow diamond interchange providing access to Salida, Riverbank, Oakdale, and Modesto. Traffic volumes at this interchange are anticipated to increase due to the trips generated by development in Salida, Modesto, Oakdale and Riverbank. 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.

Peak hour volume projections were generated using a modified StanCOG 2030 traffic model and updated to 2035. The future land uses in the vicinity of the subject interchanges include the full River Ranch development and West Salida Specific Plan and portions of the Salida Community Plan. Roadway improvements include the widening of SR-219 (Kiernan Avenue) from two lanes to four lanes and Pelandale Avenue and the extension of Ladd Road.

Traffic Volumes & Lane Configuration

In the *2035 No Build Condition*, the existing interchange configurations would remain, except for the planned SHOPP improvements at the Kiernan Avenue interchange and the widening of SR-219. Kiernan Avenue is planned as a four-lane road with signalized intersections at the SR-99 ramps, Kiernan Avenue/Sisk Road and Broadway/Salida Boulevard.

The trip generation, trip distribution, trip assignment and traffic volume forecasts for the *2030 No Build Condition* is already approved by Caltrans and Stanislaus County in May 2007. The year 2030 volumes were updated for the year 2035 using approved growth factors. The memo "*2035 Traffic Forecast Results for Hammett Road/S.R. 99 and Kiernan Avenue/S.R. 99 Project Study Reports*" dated April 12, 2007 is provided in **Attachment B**.

Evaluation of 2035 No Build Traffic Condition

Even though SR-219 (Kiernan Avenue) is planned to be widened to four lanes under a separate project, and some minor improvements are to be made at the SR-99/SR-219 (Kiernan Avenue) interchange through SHOPP improvements, all four analyzed intersections are forecasted to operate at LOS "F" in the AM and PM peak hours in the *No Build Condition*.

Table 3 presents the summary of the *2035 No Build Condition* intersection level of service for weekday AM and PM peak hours.

TABLE 3
 SR-99/SR-219 (KIERNAN AVENUE) INTERCHANGE
 INTERSECTION LEVEL OF SERVICE SUMMARY
 NO BUILD CONDITION (Year 2035)

Intersection	Peak Hour	LOS	Delay (sec)	Max v/c
1. Broadway and Salida Blvd	A.M.	F	348.4	2.12
	P.M.	F	125.7	1.27
2. SR-219 (Kiernan Ave) and SR-99 SB on/off ramps	A.M.	F	678.7	2.90
	P.M.	F	362.5	2.15
3. SR-219 (Kiernan Ave) and SR-99 NB on/off ramps	A.M.	F	828.9	3.12
	P.M.	F	621.7	2.64
4. SR-219 (Kiernan Ave) and Sisk Rd	A.M.	F	815.7	3.10
	P.M.	F	1061.1	4.00

Bold indicates unacceptable level of service and delay

Table 4 shows the 2035 *No Build Condition* level of service summary for the ramp junctions at the interchange at SR-219 (Kiernan Avenue).

TABLE 4
 SR-99/SR-219 (KIERNAN AVENUE) INTERCHANGE
 RAMP MERGE & DIVERGE LEVEL OF SERVICE SUMMARY
 NO BUILD CONDITION (Year 2035)

Location	Peak Hour	LOS
6. NB SR-99 diverge at Kiernan Ave off-ramp	A.M.	F
	P.M.	E
7. NB SR-99 merge at Kiernan Ave on-ramp	A.M.	F
	P.M.	F
8. SB SR-99 diverge at Kiernan Ave off-ramp	A.M.	E
	P.M.	F
9. SB SR-99 merge at Kiernan Ave on-ramp	A.M.	C
	P.M.	F

Bold indicates unacceptable level of service and delay

4.2 Existing Non-Standard Design Elements

The current interchange was constructed in 1969, and has several design elements that do not meet current Caltrans highway design standards, as follows:

- *Intersection Spacing on Kiernan Avenue*
 The distance between each ramp intersection and the adjacent local street intersection is less than the minimum standard of 400 ft.
- *Interchange Spacing*
 The existing interchange spacing between Pelandale Avenue and Kiernan Avenue interchanges is less than the standard of one mile.

- *Weaving Sections*

The LOS at the weaving section between Pelandale Avenue and Kiernan Avenue interchanges is less than the standard of LOS D.

- *Vertical Clearance*

The vertical clearance of the Kiernan Avenue Overcrossing of SR-99 is less than the standard of 16.5 feet. This nonstandard feature will be eliminated as the bridge will be reconstructed across Route 99.

The design exception fact sheets for the proposed nonstandard features are being processed as explained in Section 6.2 of this report.

5. CORRIDOR AND SYSTEM COORDINATION

5.1 Route Description

State Route 99 (SR-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 (SR-219) (Kiernan Avenue) begins at SR-99 in the community of Salida in Stanislaus County, and ends 4.9 miles east at Route 108. SR 219 is being widened currently to four lanes under Caltrans Project EA 10-STA 0K00.

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

Sisk Road is a local collector street that runs from a terminus roughly 0.5 mile south of the Modesto Irrigation District main canal across Kiernan Avenue and Pelandale Road to North Carpenter Road in Modesto. In the project area Sisk Road carries 10,500 vehicles per day.

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

5.2 System Designation

SR-99 is a primary route for movement of freight and goods. This route is on the National Network for STAA Trucks, with portions of SR-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.

SR-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). SR-219 is functionally classified as a Major Collector. It is not in the State Highway Extra Legal Load (SHELL) Route System. It is basically 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.

5.3 Planning Horizon

The project location is in an urban area. The existing **SR-99** facility is a 6-lane freeway. The concept Level of Service (LOS) is "C" for rural areas and "D" for the urban areas for SR-99. The Caltrans draft transportation concept report (TCR) for this segment of SR-99 identifies 20-year planning concept to be an 8-lane freeway to meet a concept LOS "D."

Improvements to **SR-219** are identified in the Stanislaus Area Regional Transportation Plan (RTP) Long-Range Improvement Program as well as the Regional Expressway Study. The RTP indicates that improvement to SR-219 is StanCOG's second priority major state highway project.

The ultimate concept for SR-219 is a six-lane conventional highway with limited access. The City of Modesto has developed a Plan Line Study reserving right of way and restricting access along the SR-219 corridor.

5.4 Programmed Projects

Planned and programmed projects are within 1 mile of SR-99/SR-219 on SR-99 are shown on the following **Table 5**:

**TABLE 5
 PLANNED AND PROGRAMMED PROJECTS IN THE VICINITY**

STATUS	Expenditure Authorization	Post Mile (SR 219)	Location	Description	Begin Construction
Proposed	0M950	00.10	SR-99/SR-219	CMS/CCTV/TMS on SR-99 to serve SR-219	TBD
Programmed / Funded / Partially Funded	0K700	00.10	SR-99/SR-219	Reconstruct NB/SB off-ramps, relocate maintenance vehicle pullout/modify signals	Nov 2008
Planned	0L330	00.10	SR-99/SR-219	Reconstruct SR-99/SR-219 Interchange	TBD
Planned	Not Assigned	TBD	SR-219/SR-99 (close proximity)	Park and Ride Facility**	TBD
Planned	Not Assigned	00.10/04.90	SR-99 to SR-108	Widen SR-219 to six lanes	2025
Programmed / Funded / Partially Funded	0A870 and 0A872	00.10/04.90	SR-99 to SR-108	Class II Bike Facility included in CMIA widening project*	July 2008
Programmed / Funded / Partially Funded	0A870	00.10/02.90	SR-219 from SR-99 to Morrow Lane SR-219	CMIA Project 4-Lane Widening, Phase I	July 2008
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

5.5 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 would be complete in 2009/2010, prior to construction of improvements at Kiernan/SR-99. No railroad grade separation is planned by either the County or the UPRR at this location. On June 17 2008, Stanislaus County Public Works staff met with Caltrans, UP Railroad and the PUC at the rail crossing on Broadway in Salida. This rail crossing is adjacent to the proposed Kiernan Interchange Reconstruction project. The purpose of the meeting was to discuss the width of the rail crossing to accommodate the future traffic operations of the intersection of Salida Blvd and Broadway. It was discussed that when widening the crossing the main element will be to construct pedestrian access across the railroad. Additional improvements will include median island reconstruction, and crossing arm relocation.

Additional items of discussion were the frequency of trains and the general operations of rail activity and how it would affect the intersection of Salida Blvd and Broadway. The significant finding was that the County would address the grade crossing as a separate project that would go before the interchange project so that the interchange project would not be impacted by railroad issues.

5.6 North County Corridor (NCC) Project

The North County Corridor (NCC) Project (EA 10-0S800) would provide approximately 24 miles of roadway on new alignment to provide interregional connectivity from SR 99 easterly to approximately 7.7 miles east of the SR 120/108 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 State Route (SR) 99/Hammett Road Interchange on the west and extending eastward to Ellenwood Road, then northward to SR-120/108 and ending east of the Oakdale Community. The proposed North County Corridor project is being developed as a replacement for the Route 108 Oakdale Bypass project. The California Transportation Commission (CTC) has programmed the project into PA&ED phase, and Caltrans intends to commit ITIP funds in the 2010 STIP cycle for up to \$91 million in capital money for an ITIP-eligible North County Corridor project segment. The CTC has funded NCC environmental studies in the STIP.

An ITIP-eligible project would require the NCC to be developed as a State Highway in the interregional road system. Legislation would be required to add an eligible route to Streets and Highways Code 164.10, and CTC action would be required to adopt an alignment. Legislation for the 2009 session was introduced by (name) on (date).

For the purpose of the Kiernan Avenue/SR 99 interchange project alternatives, the NCC is considered a local road project. It is assumed that NCC segments that might meet the CTC's conditions lie east of McHenry Avenue, or more significantly that the segment connecting to SR 99 would be a local road. Using concepts from the NCC programming document, it is assumed that the only modification along SR 99 would be the Hammett Road local road interchange modification. An NCC connection to SR 99 at Hammett Road that uses one of the HDM's local street interchanges would be considered standard with regard to interchange spacing on SR 99.

Caltrans has discussed with the County that, if the NCC segment connecting to Route 99 were proposed for transfer or adoption into the state highway system, a HDM freeway-to-freeway interchange should be assumed. Interchange spacing would then become an issue with both the Kiernan Avenue and Hammett Road interchanges on SR 99 and the Pirrone Road interchange on NCC. Future interchange spacing, interchange removal or modification, or approval of interchange spacing design exceptions would be required, depending on the outcome of NCC environmental studies, NCC project limits, timing, alignment selection and route adoption.

6. ALTERNATIVES

6.1 Alternatives Description

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

- 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.

No-Build Alternative

The **No-Build Alternative** would leave the existing interchange in its current configuration. No new ramp improvements or freeway auxiliary lanes would be constructed with this alternative. Unacceptable levels of service would occur at the ramp intersections and the freeway would not accommodate forecast traffic volumes.

Build Alternatives

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

Alternative 1 is the recommended alternative for programming. This alternative would replace the current bridge over SR-99 with a wider bridge with increased vertical clearance over SR-99, thus eliminating an existing non-standard vertical clearance condition. The existing interchange ramps, intersections and local roads would be widened to accommodate forecasted turning movements, resulting in a cross section of 8 lanes on the SR 219 (Kiernan Avenue) overcrossing of SR-99. An auxiliary lane is proposed on SR-99 in each direction between SR 219 and Pelandale Avenue interchanges to improve traffic merge and diverge movements. The Geometric Approval Drawings (GADs) for Alternative 1 are provided in **Attachment B**. The estimated construction and right of way cost in current dollars for this alternative is as follows:

Total Roadway Items	\$ 29,100,000
Total Structure Items	\$ 7,000,000
Subtotal Construction Costs	\$ 36,100,000
Total Right Of Way Items	\$ 9,100,000
Total Project Capital Outlay Costs	\$ 45,200,000

Alternative 2 - Hybrid (Type L-1 and L-6) Interchange

This alternative would eliminate the current Kiernan Avenue/SR-99 southbound on-ramp intersection, and would construct new SR-99 southbound off and on-ramps to connect SR-99 to and from Salida Boulevard with a grade-separated ("braided") ramp configuration. Auxiliary lanes are again proposed on SR-99 between the Kiernan Avenue and Pelandale Avenue interchanges. The Geometric Approval Drawings (GADs) for Alternative 2 are provided in **Attachment C**. The estimated construction and right of way cost in current dollars for this alternative is as follows:

Total Roadway Items	\$ 49,300,000
<u>Total Structure Items</u>	<u>\$ 12,300,000</u>
Subtotal Construction Costs	\$ 61,600,000
<u>Total Right Of Way Items</u>	<u>\$ 10,600,000</u>
Total Project Capital Outlay Costs	\$ 72,200,000

Cost estimates for both alternatives are provided in **Attachment D**. Right of way data sheets are provided in **Attachment E**.

6.2 Design Exceptions

The following are the design exceptions for the recommended Alternative 1:

- *Mandatory Exception #1: Intersection Spacing*
A minimum of 400 feet shall be provided between each ramp intersection and the adjacent local street intersection per Index 504.3(3) of Highway Design Manual.
Spacing between SB ramps and Salida Boulevard intersections on Kiernan Avenue is 216 feet. Significant impacts to the traffic circulation and existing established neighborhoods and congestion at Route 99/Pelandale Avenue Interchange are the reasons for requesting this exception.
- *Mandatory Exception #2: Interchange Spacing*
The minimum interchange spacing shall be one mile in urban areas per Index 501.3 of Highway Design Manual.
Existing interchange spacing on SR-99 between Pelandale Avenue and Kiernan Avenue interchanges is 0.82 mile. This is a pre-existing condition that cannot be remedied by the project due to excessive costs, significant impacts to the existing neighborhoods and substantial right of way acquisition.
- *Mandatory Exception #3: Maximum Superelevation Rate*
Maximum superelevation rates from Table 202.2 of Highway Design Manual shall be used within the given- range of curve radii.
The proposed maximum superelevation rate for the horizontal curve on Kiernan Avenue is 0.02.. This is existing condition; significant impacts to the existing neighborhoods and pedestrian access are the major reasons to avoid providing standard superelevation rate at Kiernan Avenue.
- *Advisory Exception #1: Curb Ramps*
For new construction, two curb ramps should be installed at each corner per HDM Index 105.4(2)]
Only one curb ramp is proposed at all the corners of SR-99 NB ramps at intersections with Kiernan Avenue, and at the two east corners of SR-99 SB ramps at intersections with Kiernan Avenue. The

reason for reducing number of cross walks is to increase the safety of pedestrians as it reduces number of vehicular/pedestrian conflicts at any point of time at ramp intersections.

- *Advisory Exception #2: Weaving Sections*

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

The LOS at the weaving section between the SR-99 Pelandale Avenue and Kiernan Avenue interchanges is F. Significant costs and environmental impacts are the main reasons for requesting this exception. The freeway needs to be widened northbound and southbound directions to achieve level of service D or better at this location.

The Design Exception fact sheets were prepared and were reviewed for the above nonstandard features. After review of the most recent submittal of the mandatory fact sheet, Ken Cozad, Caltrans HQ Design Coordinator and Michael Janzen, HQ Design reviewer are able to concur that both build alternatives do not contain any fatal flaws and are worthy of further consideration. Mandatory fact sheet preparation will resume in the 0 phase.

6.3 Storm Water Discussion

A Storm Water Data Report was prepared and was approved by the District 10 Storm Water Coordinator. The signed cover sheet of the Storm Water Data Report (SWDR) is provided in **Attachment F**. The proposed project would change the existing flow pattern, and divert new ramp stormwater runoff into new infiltration basins proposed within the project limits. Although the proposed new infiltration basins are located within a geographical area regulated by the Stanislaus County MS4 Permit, they are designed to accommodate all the stormwater runoff from the new facility (ramps and southbound aux. lanes) with no overflow outlets, and no connection to the MS4 system or surface waters. There are no surface waters indicated on the 7.5 minute USGS quadrangle within the project limits.

By constructing new basins, the runoff to the pump station that drains into Stanislaus River would be reduced significantly. The runoff from the existing ramps (3.53 acres) would not continue to discharge into the pump station but would be diverted to the infiltration basins. The runoff from northbound auxiliary lane (0.44 acres) would be added to existing storm drain system that drains into the pump station. It is proposed to perpetuate this existing flow pattern for the reduced flows that are pumped to the Stanislaus River, and no new permanent treatment is proposed to be provided for those reduced flows. Furthermore, the project would 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 the final design phase to confirm the hydraulic and structural adequacy of the existing drainage system.

6.4 Transportation Management Plan

A Transportation Management Plan (TMP) Checklist has been prepared to identify traffic control strategies necessary to reduce vehicle delays during construction. The TMP Checklist is provided in **Attachment G**. It is anticipated that temporary lane closures would be required for setting K-rail and lane width reductions would be required for work zones. Provision is made for changeable message signs, K-rail and temporary traffic screens during construction. The project cost estimate includes \$250,000 for TMP and \$250,000 for COZEEP. The District 10 Traffic Management Unit would be consulted to develop a concise TMP limits.

6.5 Traffic Operations

The Traffic Operations Report was prepared by Rajappan & Meyer Consulting Engineers, Inc. and approved by Caltrans District 10 Traffic Operations Unit in July 16, 2008. Level of service analysis was performed for the study intersections for each build alternative for Year 2035 AM and PM peak hour traffic.

All intersections in alternatives 1 and 2 operate at LOS "D" or better based on Synchro results given in **Table 6**.

TABLE 6
 SR-99/SR-219 (KIERNAN AVENUE) INTERCHANGE
 INTERSECTION LEVEL OF SERVICE SUMMARY (SYNCHRO) (Year 2035)

Intersection	Peak hour	2035 No-Build			2035 Alternative 1			2035 Alternative 2		
		LOS	Control Delay (Sec)	V/C	LOS	Control Delay (Sec)	V/C	LOS	Control Delay (Sec)	V/C
Broadway and Salida Blvd	A.M.	F	126.0	1.27	C	31.9	0.76	C	30.4	0.92
	P.M.	F	348.0	2.12	C	29.3	0.96	C	26.2	0.92
Kiernan Ave and SR-99 SB on/ off ramps	A.M.	F	678.7	2.9	D	38.3	0.98	-	-	-
	P.M.	F	362.5	2.15	C	23.8	0.88	-	-	-
Kiernan Ave and SR-99 NB on/ off ramps	A.M.	F	828.9	3.12	C	29.5	1.12	A	8.7	0.83
	P.M.	F	621.7	2.64	C	25.6	1.11	B	10.6	0.90
Kiernan Avenue and Sisk Rd	A.M.	F	1061.1	4.0	D	38.9	0.90	D	42.2	0.91
	P.M.	F	815.7	3.1	F	107.8	1.35	F	98.5	1.26
Salida Blvd and SR-99 SB off ramp	A.M.	-	-	-	-	-	-	A	1.5	0.66
	P.M.	-	-	-	-	-	-	A	2.3	0.59
Salida Blvd and SR-99 SB on ramp	A.M.	-	-	-	-	-	-	A	4.3	0.72
	P.M.	-	-	-	-	-	-	B	17.4	1.05

- Intersection is not present in Alternative
Bold indicates unacceptable level of service and delay. The results are based on the analysis done based on Synchro 7

Due to the proximity of intersections and the Union Pacific Railroad, Caltrans advised that the HCM methodology was not the appropriate tool for calculating potential delay. Therefore, SimTraffic was used to calculate the delay in order to take into account the effects of the adjacent intersections. The SimTraffic results are given in **Table 7**. Some of the intersections experience long delays and queues in the simulation. SimTraffic results show that the ramp and local intersection operate at excessive delay for the year 2035 forecasted volumes, even though all the study intersections would operate better for all build alternatives, as compared to the no build condition. The interchange cannot be improved any further to achieve acceptable levels of service, without closing some of the local intersections and significantly affecting or acquiring some of the established commercial properties that are located along Kiernan Avenue/Broadway.

Since 2035 SimTraffic method produced excessive delay results, the intersections were studied with estimated 2025 volumes. The volumes were extrapolated using straight line interpolation between years 2002 and 2035. The traffic operations results for the year 2025 are summarized in **Tables 8** and **9** for no build and build conditions. The intersection at Kiernan Avenue/Sisk Road still appears to fail earlier than 2025 because of the westbound traffic queuing up in the right lane to access the northbound on-ramp. Otherwise, all other study intersections would operate within acceptable levels of delay. As a result, the design year for the project is recommended to be lowered to the year 2025, for which all the ramp intersections and Salida Boulevard operate at acceptable levels of service.

TABLE 7
 SR-99/SR-219 (KIERNAN AVENUE) INTERCHANGE
 INTERSECTION LEVEL OF SERVICE SUMMARY (SIMTRAFFIC) (Year 2035)

Intersection	Peak hour	2035 No-Build			2035 Alternative 1			2035 Alternative 2		
		LOS	Delay (Sec)	Density	LOS	Delay (Sec)	Density	LOS	Delay (Sec)	Density
Broadway and Salida Blvd	A.M.	F	6446.2	110	F	554.1	98	D	43.4	146
	P.M.	F	5137.8	89	C	29.7	242	D	46.2	112
Kiernan Ave and SR-99 SB on/ off ramps	A.M.	F	3339.5	88	F	150.4	133	-	-	-
	P.M.	F	2644.9	68	F	93.2	107	-	-	-
Kiernan Ave and SR-99 NB on/ off ramps	A.M.	F	1401.8	64	E	91.6	132	D	42.5	136
	P.M.	F	848.2	62	C	20.7	154	F	116.6	78
Kiernan Avenue and Sisk Rd	A.M.	F	1399.6	65	F	316.4	149	F	328.5	150
	P.M.	F	2826.7	59	F	712.1	134	F	869.6	72
Salida Blvd and SR-99 SB off ramp	A.M.	-	-	-	-	-	-	F	529.6	89
	P.M.	-	-	-	-	-	-	E	142.4	96
Salida Blvd and SR-99 SB on ramp	A.M.	-	-	-	-	-	-	F	483.9	140
	P.M.	-	-	-	-	-	-	B	11.3	203

- Intersection is not present in Alternative
Bold indicates unacceptable level of service and delay. The results are based on the analysis done based on SimTraffic 7

TABLE 8
 SR-99/SR-219 (KIERNAN AVENUE) INTERCHANGE
 2025 INTERSECTION LEVEL OF SERVICE SUMMARY (SYNCHRO)

Intersection	Peak hour	2025 No-Build			2025 Alternative 1			2025 Alternative 2		
		LOS	Control Delay (Sec)	V/C	LOS	Control Delay (Sec)	V/C	LOS	Control Delay (Sec)	V/C
Broadway and Salida Blvd	A.M.	F	212.2	1.68	C	23.2	0.58	C	20.5	0.71
	P.M.	D	46.8	0.97	C	25.5	0.77	B	18.6	0.75
Kiernan Ave and SR 99 SB on/ off ramps	A.M.	F	426.8	2.23	C	23.4	0.80	-	-	-
	P.M.	F	240.2	1.78	C	20.4	0.82	-	-	-
Kiernan Ave and SR-99 NB on/ off ramps	A.M.	F	522.1	2.35	B	11.8	0.78	A	6.8	0.65
	P.M.	F	316.6	1.95	B	13.7	0.93	A	7.0	0.74
Kiernan Avenue and Sisk Rd	A.M.	F	557.8	2.46	C	23.8	0.72	C	25.7	0.71
	P.M.	F	692.9	2.93	D	43.8	0.94	D	37.8	.85
Salida Blvd and SR-99 SB off ramp	A.M.	-	-	-	-	-	-	A	1.2	0.51
	P.M.	-	-	-	-	-	-	A	1.2	0.51
Salida Blvd and SR-99 SB on ramp	A.M.	-	-	-	-	-	-	A	4.6	0.60
	P.M.	-	-	-	-	-	-	A	5.4	0.88

- Intersection is not present in Alternative
Bold indicates unacceptable level of service and delay. The results are based on the analysis done based on Synchro 7

TABLE 9
SR-99/SR-219 (KIERNAN AVENUE) INTERCHANGE
2025 INTERSECTION LEVEL OF SERVICE SUMMARY (SIMTRAFFIC)

Intersection	Peak hour	2025 No-Build			2025 Alternative 1			2025 Alternative 2		
		LOS	Delay (Sec)	Density	LOS	Delay (Sec)	Density	LOS	Delay (Sec)	Density
Broadway and Salida Blvd	A.M.	F	5199.1	101	D	35.4	268	C	34.6	186
	P.M.	F	2503.5	69	C	28.8	294	C	28.6	171
Kiernan Ave and SR-99 SB on/ off ramps	A.M.	F	2189.8	86	C	25.7	187	-	-	-
	P.M.	F	1454.4	69	C	24.2	177	-	-	-
Kiernan Ave and SR-99 NB on/ off ramps	A.M.	F	773.1	66	B	10.8	256	C	24.3	186
	P.M.	F	602.7	64	B	10.5	232	C	24.7	165
Kiernan Avenue and Sisk Rd	A.M.	F	918.1	64	F	147.9	190	F	202.7	194
	P.M.	F	1812.2	58	F	297.7	175	F	328.9	115
Salida Blvd and SR-99 SB off ramp	A.M.	-	-	-	-	-	-	C	34.3	170
	P.M.	-	-	-	-	-	-	A	8.3	283
Salida Blvd and SR-99 SB on ramp	A.M.	-	-	-	-	-	-	B	10.4	306
	P.M.	-	-	-	-	-	-	A	9.0	257

- Intersection is not present in Alternative
Bold indicates unacceptable level of service and delay. The results are based on the analysis done based on SimTraffic 7

6.6 Design Period

The Project Development Team (PDT) has agreed on less than a 20-year design period for the Project. The PDT has balanced traffic operations against Highway Design Manual, 6th Edition, Index 103.2 'Design Period' to meet a 10-year design period for the SR-99/SR 219 interchange, with analysis based on standard evaluation tools. The District 10 Traffic Operations is in agreement with the interchange operations performance in the 20th year after the completion of the Project.

The original analysis using Synchro software (based on the Highway Capacity Manual) showed adequate level of service for 20 year operations at the study intersection. However, due to the proximity of intersections with the Union Pacific Railroad, Caltrans advised the design consultant that HCM was not adequate for calculating delay, and that SimTraffic software be used to calculate the delay in order to take into account the effects of the adjacent intersections. The SimTraffic results show that some of the intersections experience long delays and queues in the simulation. The interchange cannot be improved any further without closing some of the local intersections and significantly affecting and/or acquiring the established commercial properties that are located along Kiernan Avenue/Broadway to achieve acceptable levels of service. However, when the proposed interchange was analyzed for traffic forecasted volumes of the year 2025, the traffic operations based on SimTraffic results showed that all the ramp intersections and Salida Boulevard would operate at acceptable levels of service for the year 2025.

The District 10 Traffic Operations Branch has reviewed and approved the Traffic Operations Report which reflects the Design Period of 10 years.

6.7 Value Analysis

The Value Analysis to evaluate the alternatives will be completed in the PA&ED phase.

7. COMMUNITY INVOLVEMENT

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

Additional public meetings will be held by Stanislaus County during the PA&ED phase. These meetings will provide opportunity for members of the public and other public agencies to comment or request clarification about the proposed project and related documents,

8. ENVIRONMENTAL DETERMINATION/DOCUMENT

A Preliminary Environmental Analysis Report (PEAR) was prepared on November 25, 2008, approved by Caltrans Central Region Environmental Unit on January 12, 2009, and is provided in **Attachment H**. This section describes the findings of the PEAR document.

The anticipated environmental documentation would be an Initial Study/Mitigated Negative Declaration for the California Environmental Quality Act and an Environmental Assessment/Finding of No Significant Impact for the National Environmental Policy Act, should federal or STIP funding be sought by the County. Caltrans would be the lead agency for the purposes of both the California Environmental Quality Act and the National Environmental Policy Act.

9. FUNDING AND PROGRAMMING

9.1 Capital Cost

The project is anticipated to be funded by a combination of Public Facility Fee (PFF), future sales tax revenue and funding from the State Transportation Improvement Program (STIP). Stanislaus County has adopted and is already collected some traffic mitigation funds through City/County Transportation Facilities Public Facility Fee (PFF) program. Stanislaus Council of Government's 2007 Regional Transportation Plan shows \$60 million of fiscally constrained funding for this project in 2010. The anticipated total collection through the PFF is \$50 million in 2007 dollars for this project, as shown in the Stanislaus County Impact Fee Update Study, completed in September 2008. The County will pursue STIP funding for construction phases to cover any shortfalls.

Alternative 1 is the recommended alternative for programming.

The estimated construction and right of way cost for this alternative in current (2008) dollars is as follows:

Total Roadway Items	\$ 29,100,000
<u>Total Structure Items</u>	<u>\$ 7,000,000</u>
Subtotal Construction Costs	\$ 36,100,000
<u>Total Right Of Way Items</u>	<u>\$ 9,100,000</u>
Total Project Capital Outlay Costs	\$ 45,200,000

The escalated values for all project components are provided in the following **Table 10**:

TABLE 10
 ESCALATED IMPLEMENTATION COSTS

COMPONENT	PCT	OF	CURRENT DOLLARS	BEGINNING OF COST*	ANNUAL PCT ESCALATION	ESCALATED COST
PAVED	3%	CONST	\$1,083,000	1/1/2009	0%	\$1,083,000
PS&E	11%	CONST	\$3,971,000	11/30/2009	0%	\$3,971,000
R/W Support	10%	R/W	\$910,000	4/20/2010	3.5%	\$975,000
R/W Capitol	100%	R/W	\$9,100,000	4/20/2010	3.5%	\$9,750,000
Constr. Support	12%	CONST	\$4,332,000	12/8/2011	3.5%	\$4,803,000
Construction	100%	CONST	\$36,100,000	12/8/2011	3.5%	\$40,025,000
TOTAL COST			\$55,496,000			\$60,607,000

9.2. Capital Support Estimate for Programmable Alternative

Estimated support costs for the project are shown in **Table 11**:

**TABLE 11
 ESCALATED SUPPORT COSTS**

COMPONENT	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	TOTAL
PA/ED	\$1,083,000						\$1,083,000
PS&E		\$2,000,000	\$1,971,000				\$3,971,000
R/W Support		\$910,000					\$910,000
Constr. Support			\$800,000	\$3,003,000	\$1,000,000		\$4,803,000
TOTAL ESC. COST	\$1,083,000	\$2,900,000	\$2,771,000	\$3,003,000	\$1,000,000		\$10,767,000

A Cooperative Agreement has been executed for PA&ED phase activities, and is provided in Attachment I. Note that the cooperative agreement shows only postmile limits for Route 99. The project includes a portion of Route 219. This will be added to the Cooperative Agreement in the PA/ED phase.

10. SCHEDULE

Table 12 provides the proposed schedule for delivery of project milestones for the Alternative 1:

TABLE 12
 PROPOSED MILESTONE SCHEDULE

<u>No.</u>	<u>Milestone</u>	<u>Date</u>
1.	M000 - IDENTIFY NEED	07/01/2005
2.	M010 - APPROVE PID	06/01/2009
3.	M015 - PROGRAM PROJECT	06/01/2009
4.	M020 - BEGIN ENVIRONMENTAL	02/01/2009
5.	M030 - NOTICE OF PREPARATION (NOP)	N.A.
6.	M040 - BEGIN PROJECT REPORT	02/01/2009
7.	M100 - APPROVE DPR	12/02/2009
8.	M120 - CIRCULATE DED	11/09/2009
9.	M160 - APPROVE FED	05/19/2010
10.	M200 - PA & ED	06/19/2010
11.	M210 - BEGIN DESIGN	12/30/2009
12.	M221 - BRIDGE SITE DATA ACCEPTED	03/09/2010
13.	M224 - RIGHT OF WAY MAPS	03/19/2010
14.	M225 - REGULAR RIGHT OF WAY	04/18/2011
15.	M275 - GENERAL PLANS	06/14/2010
16.	M311 - 30% CONST REVIEW COMPLETED	06/14/2010
17.	M313 - 60% CONST REVIEW COMPLETED	10/03/2010
18.	M315 - 95% CONST REVIEW COMPLETED	12/12/2010
19.	M378 - DRAFT STRUCTURES PS&E	03/04/2011
20.	M380 - PROJECT PS&E	05/01/2011
21.	M410 - RIGHT OF WAY CERTIFICATION	03/18/2011
22.	M460 - READY TO LIST	06/08/2011
23.	M480 - COUNTY ADVERTISE	06/09/2011
24.	M495 - AWARD	08/15/2011
25.	M500 - APPROVE CONSTRUCTION CONTRACT	09/12/2011
26.	M600 - CONTRACT ACCEPTANCE	02/24/2014

11. FHWA COORDINATION

This is a delegated project pursuant to the 2007 Joint Stewardship and Oversight Agreement between Caltrans and FHWA.

12. DISTRICT/LOCAL ENTITY CONTACTS

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

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

1038 Leigh Avenue, San Jose, CA 95126

- Keith Meyer, Principal (408) 280-2772
- Martha Dadala, Design Manager
- Kianoush Harirsaz, Structural Design Manager

Dowling Associates (Traffic)

180 Grand Avenue, Suite 250, Oakland, California USA 94612

- Joe Holland, Principal (925) 284-3200

LSA Associates, Inc. (Environmental)

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

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

13. PROJECT REVIEWS

District Maintenance Review

Date July 09, 2008

District Safety Review

Date October 23, 2008

Constructability Review

Date October 23, 2008

HQ Design Coordinator

Date July 03, 2008

DES Review

Date July 08, 2008

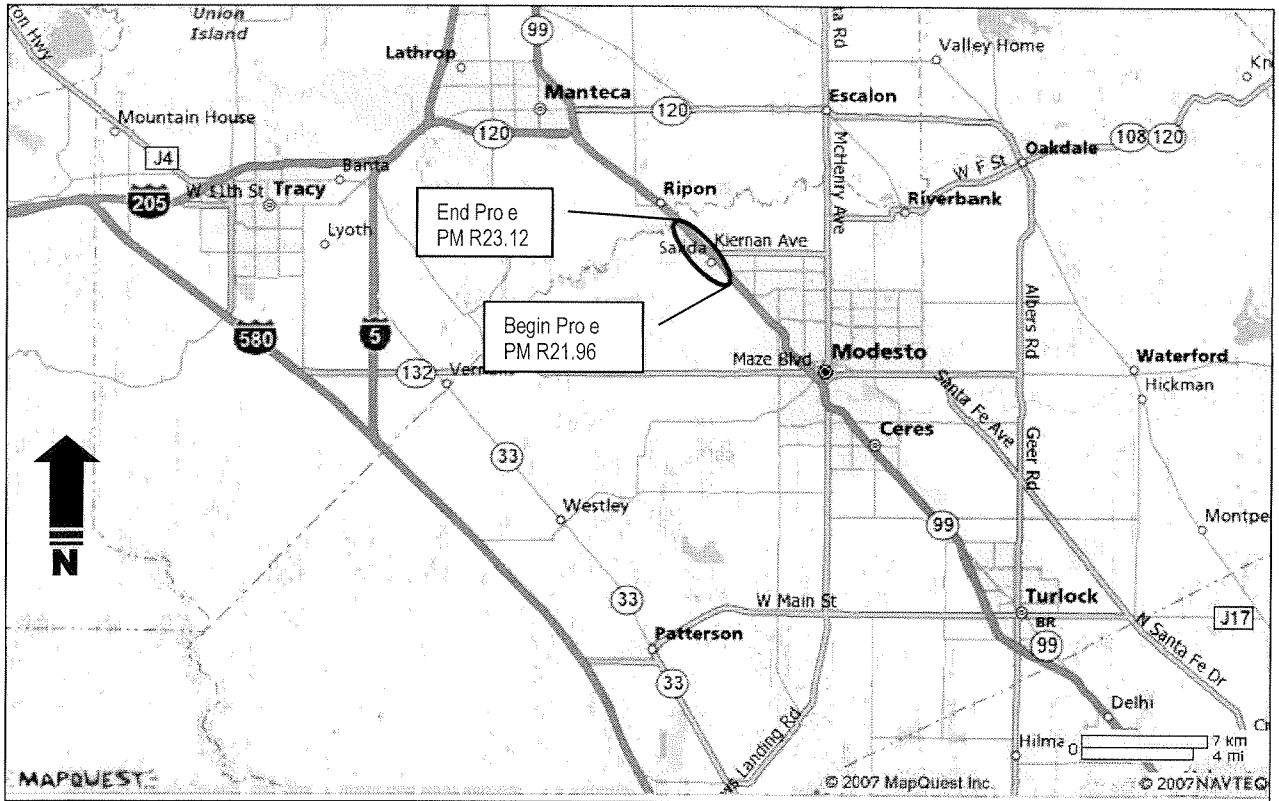
14. ATTACHMENTS

- Attachment A – Vicinity Map
- Attachment B – Geometric Approval Drawings (Alternative 1)
- Attachment C – Geometric Approval Drawings (Alternative 2)
- Attachment D – Cost Estimates
- Attachment E – Right of Way Data Sheets (RWDS)
- Attachment F – Storm Water Data Report Cover Sheet (SWDR)
- Attachment G – TMP Checklist
- Attachment H – PEAR Document
- Attachment I – Cooperative Agreement

**ATTACHMENT A
VICINITY MAP**

VICINITY MAP

Route 99/Kiernan Avenue Interchange



ATTACHMENT B
GEOMETRIC APPROVAL DRAWINGS (ALTERNATIVE 1)

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10	STA	99	21.9/23.1		

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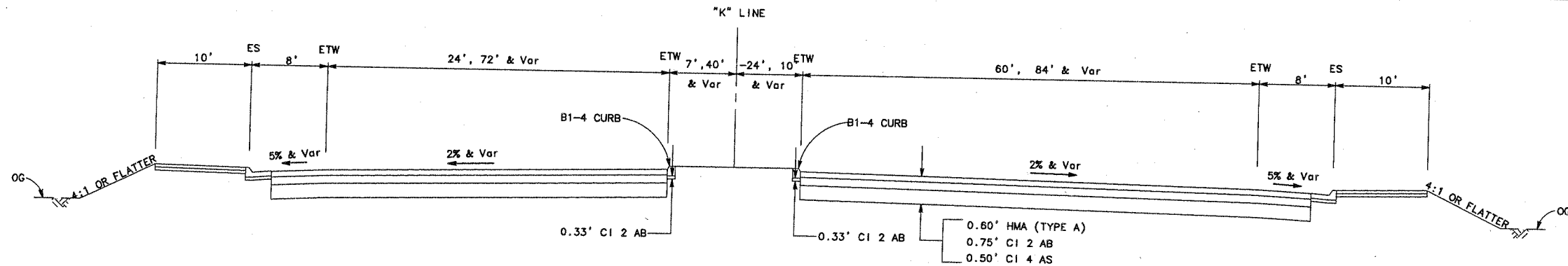
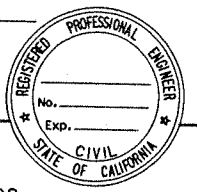
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STOCKTON, CALIFORNIA 95202

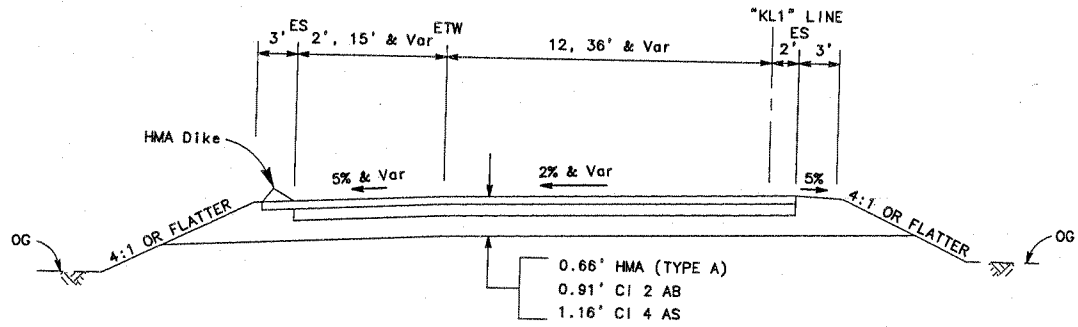
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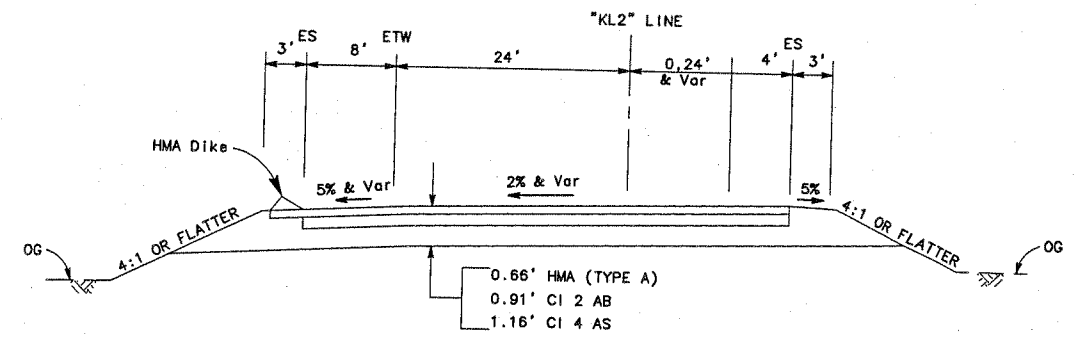
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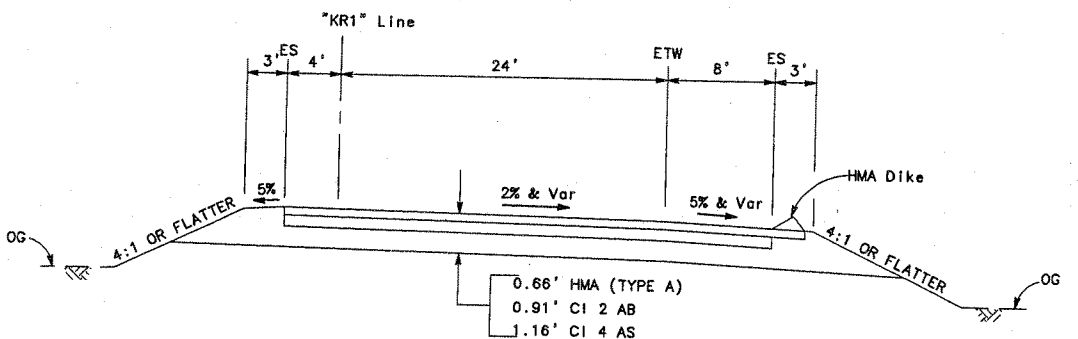
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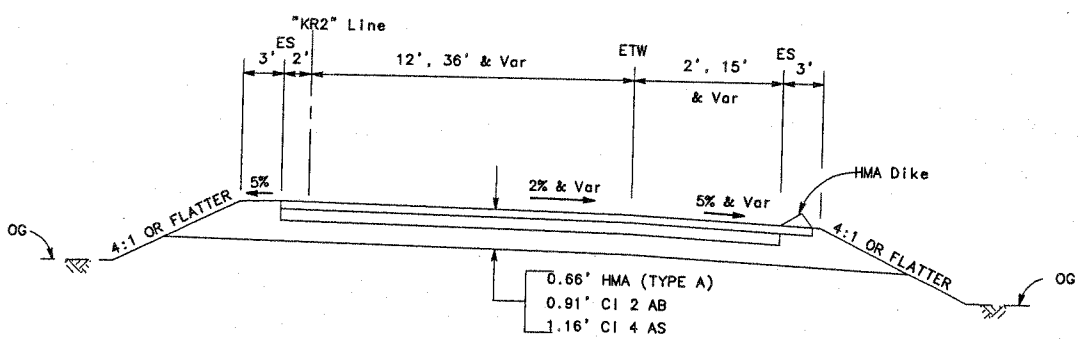
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**"KL2" LINE
SB OFF RAMP**
Sta KL2 297+98.29 TO 310+32.90



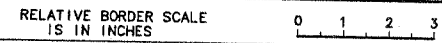
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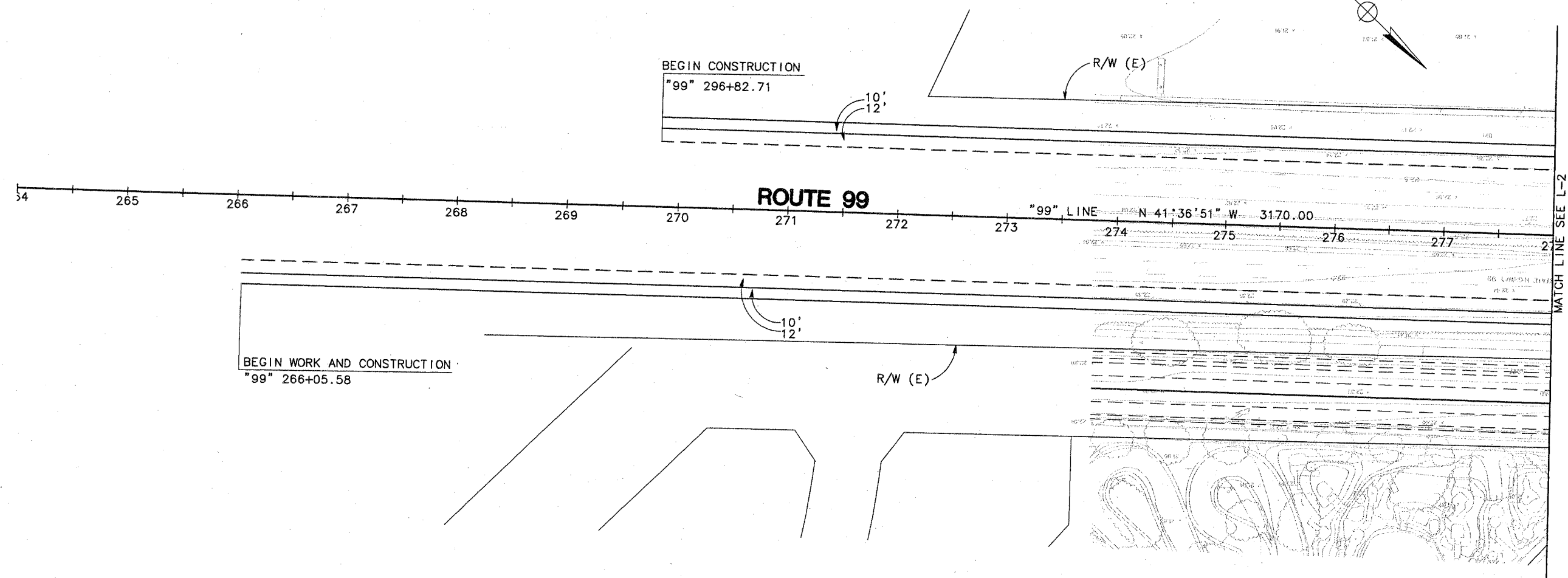
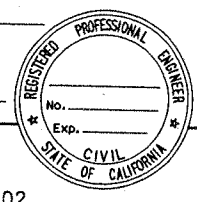
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**ROUTE 99 / KIERNAN AVENUE
ALTERNATIVE 1
TYPICAL CROSS SECTIONS**

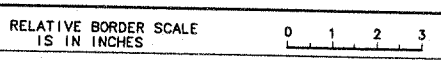
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10	STA	99	21.9/23.1		

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 LAYOUT
 SCALE 1"=50'**



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CURVE TABLE				
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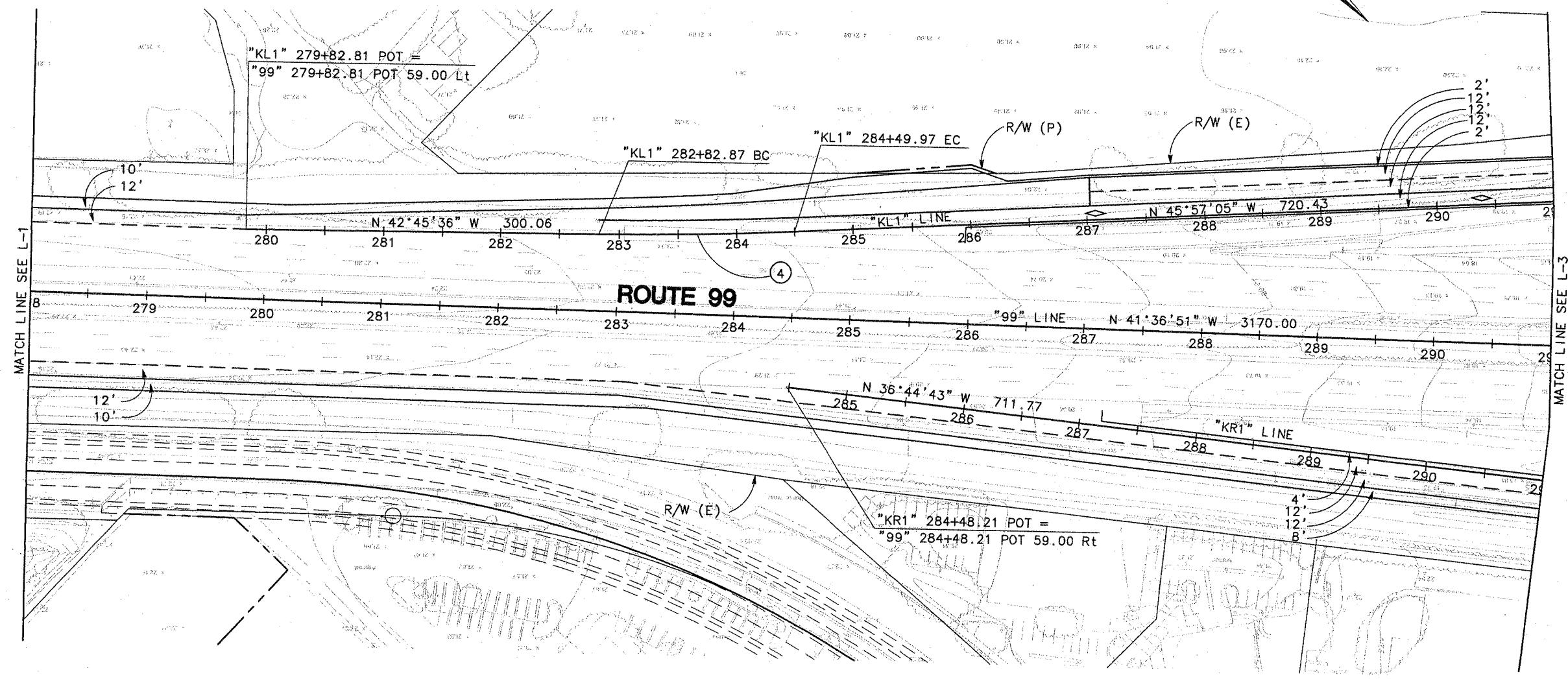
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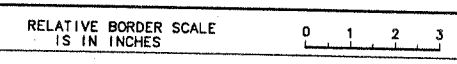
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 LAYOUT**
 SCALE 1"=50'

L-2



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CURVE	LENGTH	RADIUS	DELTA	TANGENT
①	1325.35	4750.00	15°59'12"	667.01
⑤	222.89	3000.00	4°15'25"	111.50
⑥	483.30	2000.00	13°50'44"	242.83
⑦	240.31	3000.00	4°35'22"	120.22

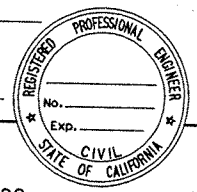
PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

CITY OF STOCKTON
22 EAST WEBER AVENUE
STOCKTON, CALIFORNIA 95202

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

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

REQUEST

DESIGN OVERSIGHT

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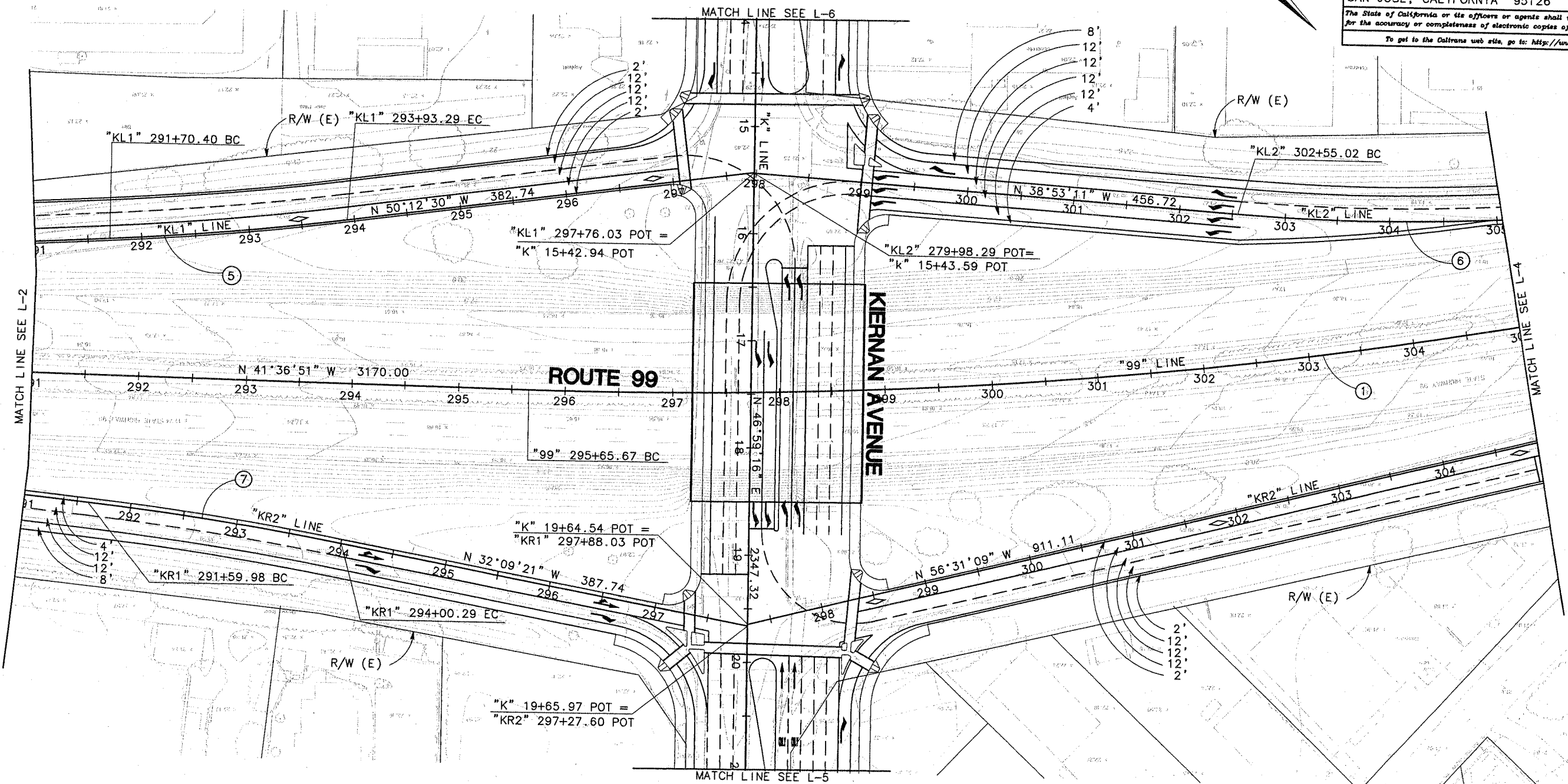
DESIGNED BY

REVISOR

DATE

REVISOR

DATE



**ROUTE 99 / KIERNAN AVENUE
ALTERNATIVE 1
LAYOUT**
SCALE 1"=50'

RELATIVE BORDER SCALE IS IN INCHES

0 1 2 3

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

CU EA 10-0L330K

L-3

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

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

PROFESSIONAL CIVIL ENGINEER

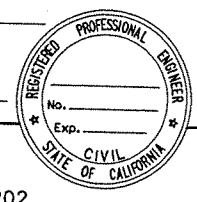
PLANS APPROVAL DATE

CITY OF STOCKTON
22 EAST WEBER AVENUE
STOCKTON, CALIFORNIA 95202

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

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CURVE	LENGTH	RADIUS	DELTA	TANGENT
(1)	1325.35	4750.00	15°59'12"	667.01
(8)	189.16	2000.00	5°25'08"	94.65
(9)	167.10	3000.00	3°11'29"	83.57

REVISIONS

NO.	DATE	REVISION

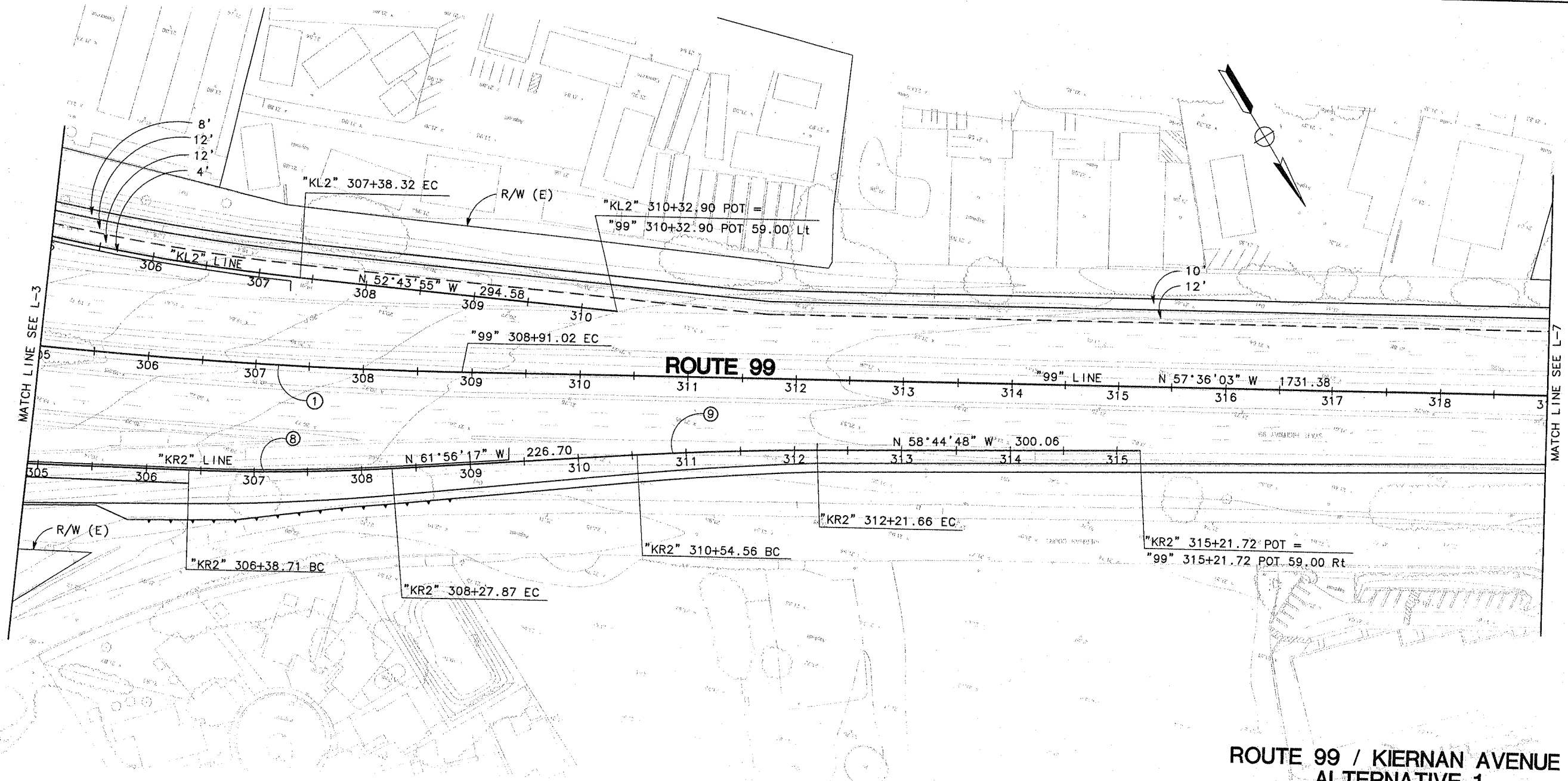
CALCULATED/DESIGNED BY

CHECKED BY

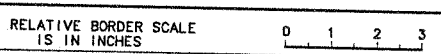
DESIGN OVERSIGHT

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans



**ROUTE 99 / KIERNAN AVENUE
ALTERNATIVE 1
LAYOUT**
SCALE 1"=50'



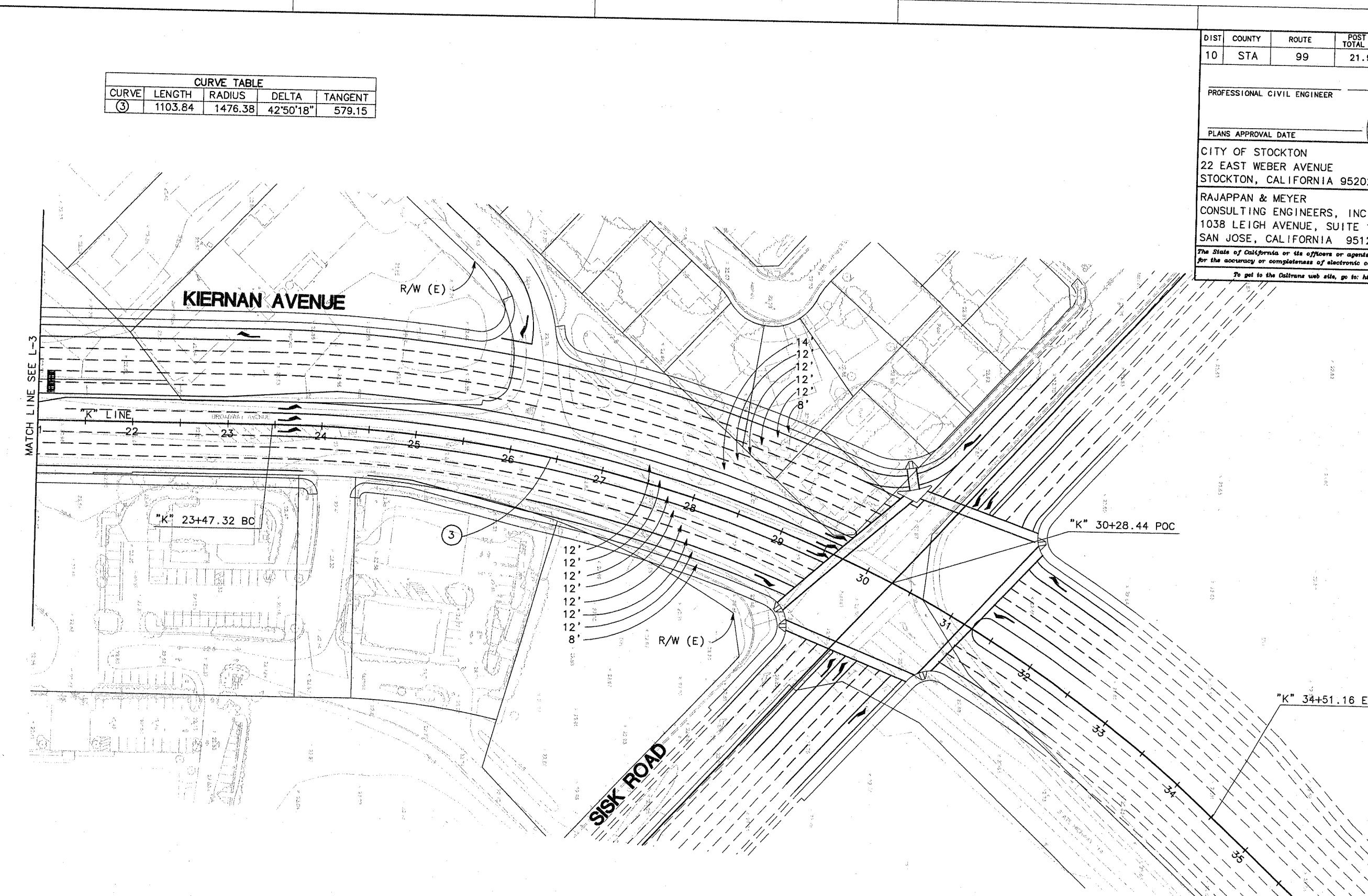
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DGN FILE => \$REQUEST

CU EA 10-0L330K

L-4

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans



CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
③	1103.84	1476.38	42°50'18"	579.15

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

PROFESSIONAL CIVIL ENGINEER

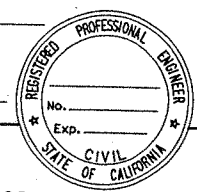
PLANS APPROVAL DATE

CITY OF STOCKTON
 22 EAST WEBER AVENUE
 STOCKTON, CALIFORNIA 95202

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 1038 LEIGH AVENUE, SUITE 100
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**ROUTE 99 / KIERNAN AVENUE
 ALTERNATIVE 1
 LAYOUT**
 SCALE 1"=50'



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

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L-5

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

CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
①	300.29	2000.00	8°36'09"	150.43

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

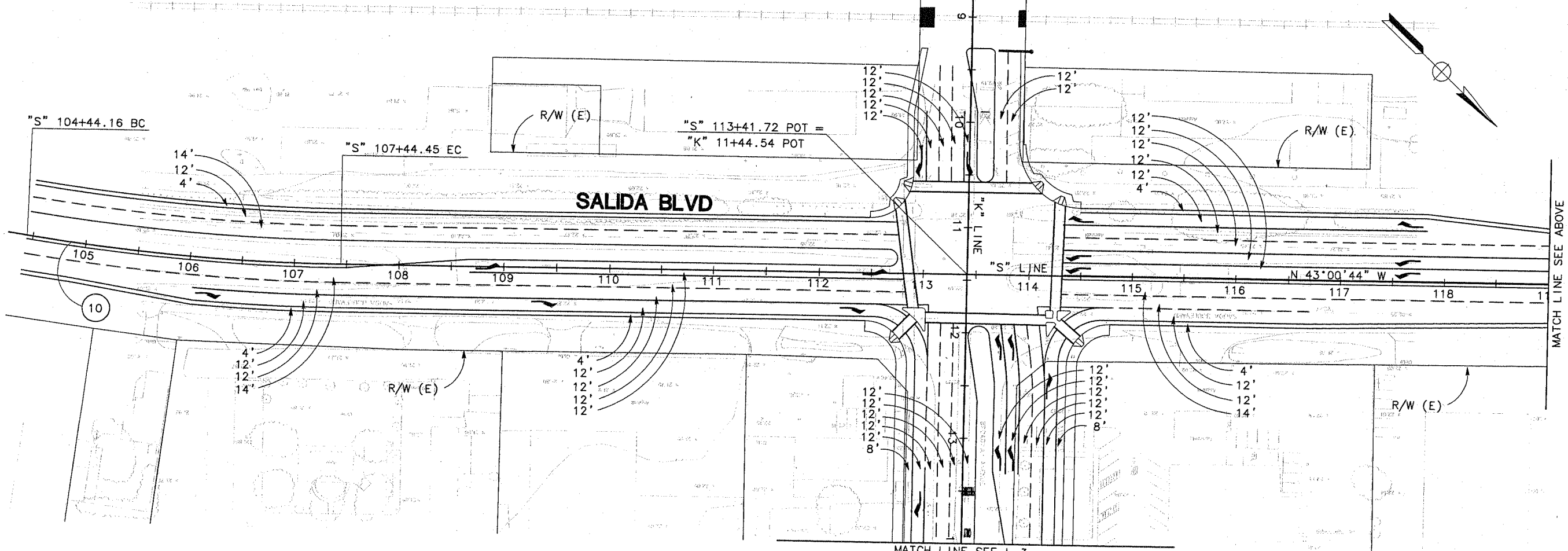
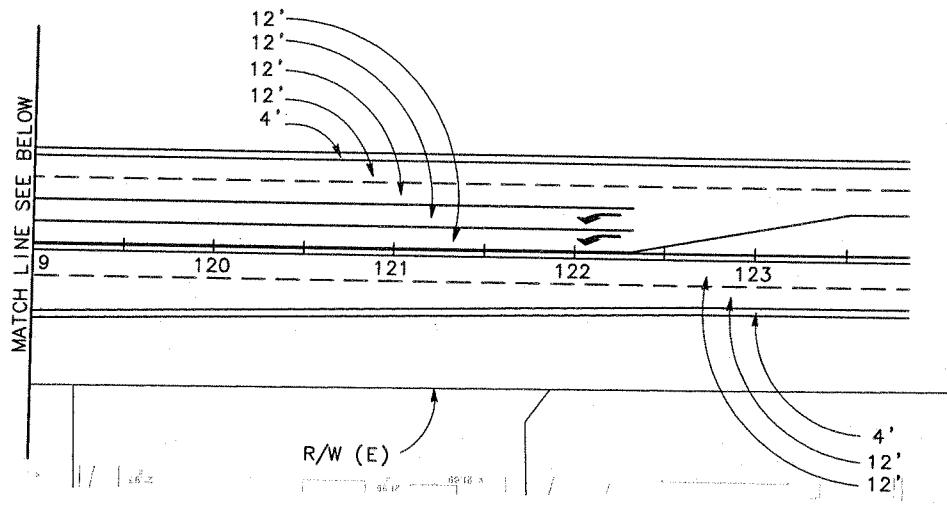
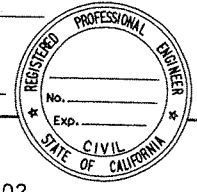
PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE _____

CITY OF STOCKTON
22 EAST WEBER AVENUE
STOCKTON, CALIFORNIA 95202

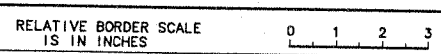
RAJAPPAN & MEYER
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1038 LEIGH AVENUE, SUITE 100
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**ROUTE 99 / KIERNAN AVENUE
ALTERNATIVE 1
LAYOUT**
SCALE 1"=50'

REQUEST STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN OVERSIGHT
 CALCULATED BY
 DESIGNED BY
 CHECKED BY
 DATE
 REVISIONS
 BY
 DATE
 REVISIONS
 BY
 DATE



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

CU EA 10-0L330K

L-6

LAST REVISION
 00-00-00
 DATE PLOTTED => DATE
 TIME PLOTTED => TIME

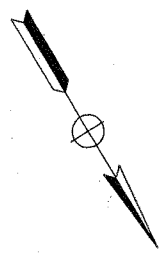
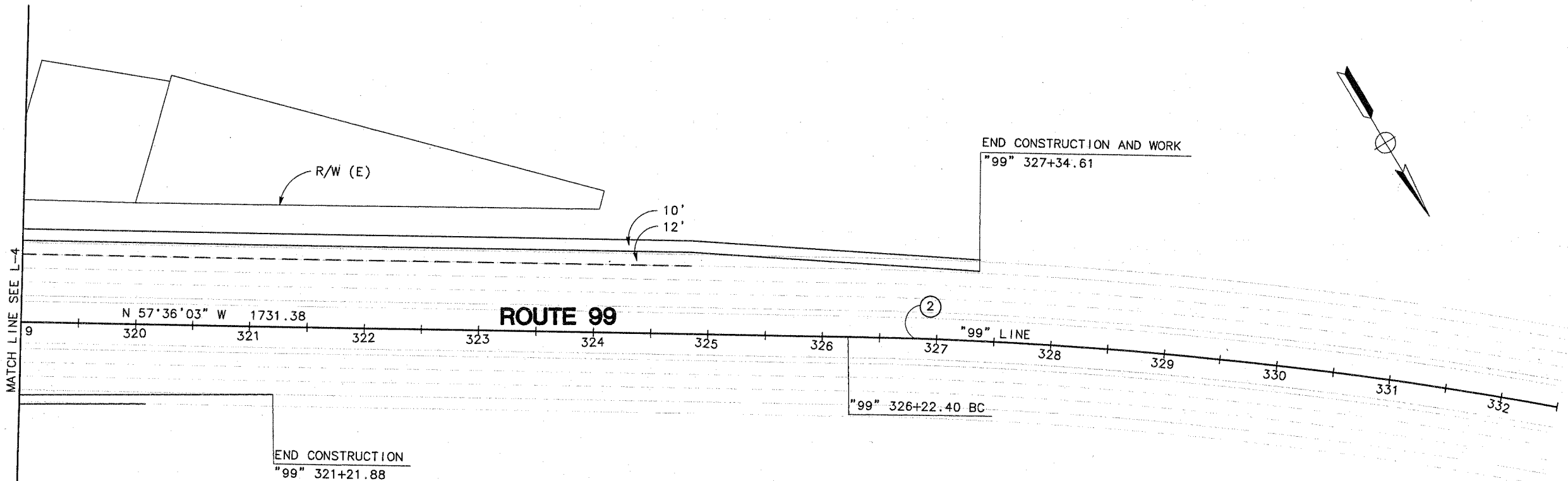
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	STA	99	21.9/23.1		

CURVE	LENGTH	RADIUS	DELTA	TANGENT
(2)	1010.41	4000.00	14°28'23"	507.91

PROFESSIONAL CIVIL ENGINEER
 PLANS APPROVAL DATE _____
 CITY OF STOCKTON
 22 EAST WEBER AVENUE
 STOCKTON, CALIFORNIA 95202
 RAJAPPAN & MEYER
 CONSULTING ENGINEERS, INC.
 1038 LEIGH AVENUE, SUITE 100
 SAN JOSE, CALIFORNIA 95126
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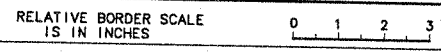


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 CHECKED BY
 DATE
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 DATE
 REVISED
 DATE
 REVISED



ROUTE 99 / KIERNAN AVENUE
 ALTERNATIVE 1
 LAYOUT
 SCALE 1"=50'

L-7



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

CU EA 10-0L330K

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

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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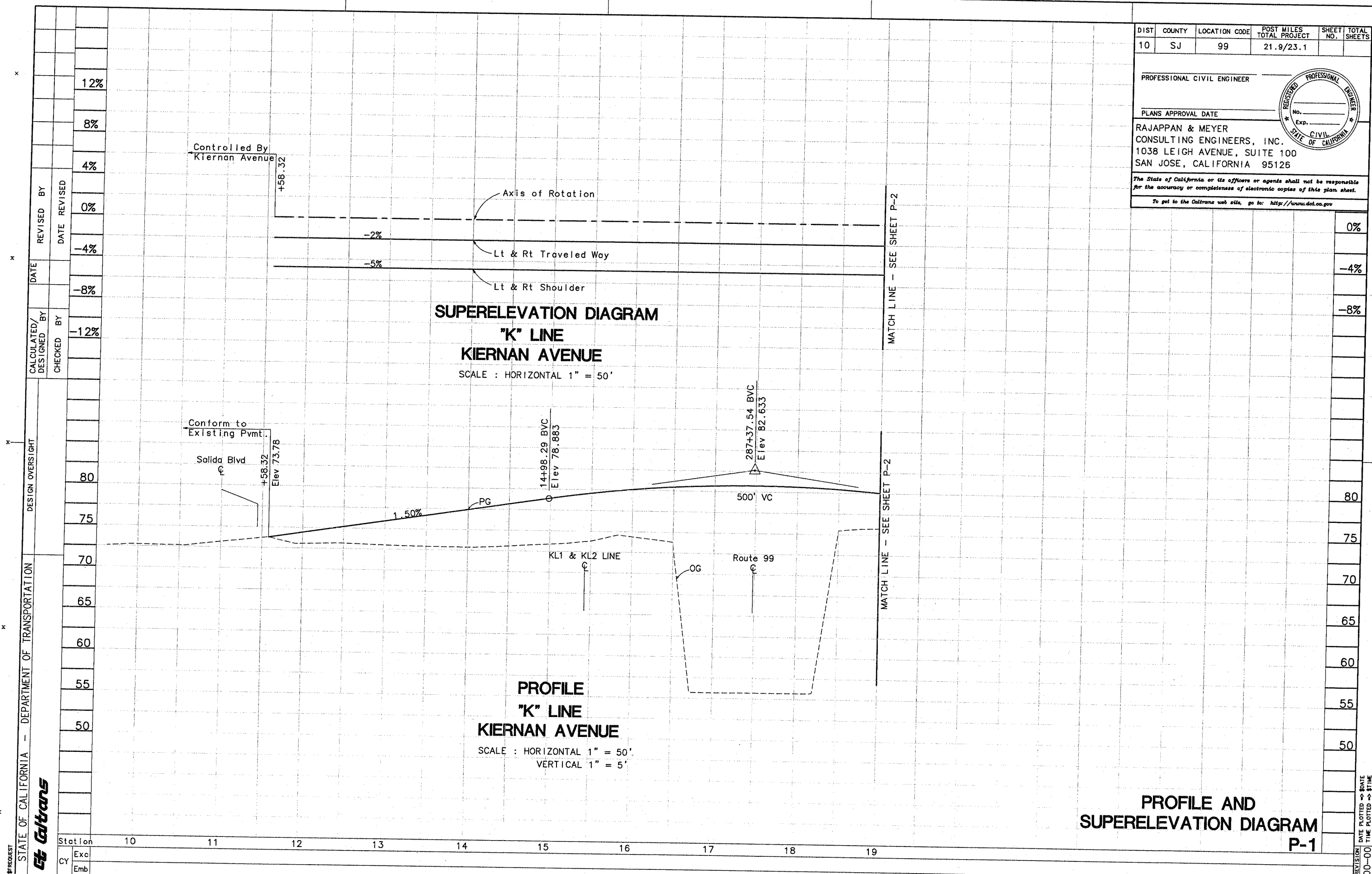
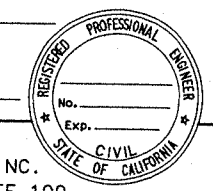
PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE _____

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

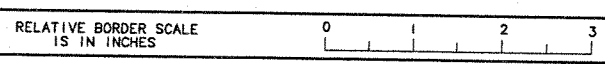
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PROFILE AND SUPERELEVATION DIAGRAM
P-1



USERNAME → \$USER
DGN FILE → \$REQUEST

CU EA 10-0L330K

LAST REVISION DATE PLOTTED → DATE
00-00-00 TIME PLOTTED → \$TIME

DESIGN OVERSIGHT

CALCULATED/DESIGNED BY	DATE
CHECKED BY	REVISOR
	DATE
	REVISOR

12%
8%
4%
0%
-4%
-8%
-12%

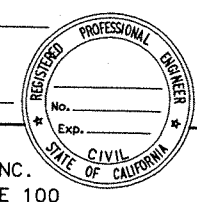
Station	28	29	30	31	32	33	34	35	36	37	38	39	40
Exc													
Emb													

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ	99	21.9/23.1		

PROFESSIONAL CIVIL ENGINEER

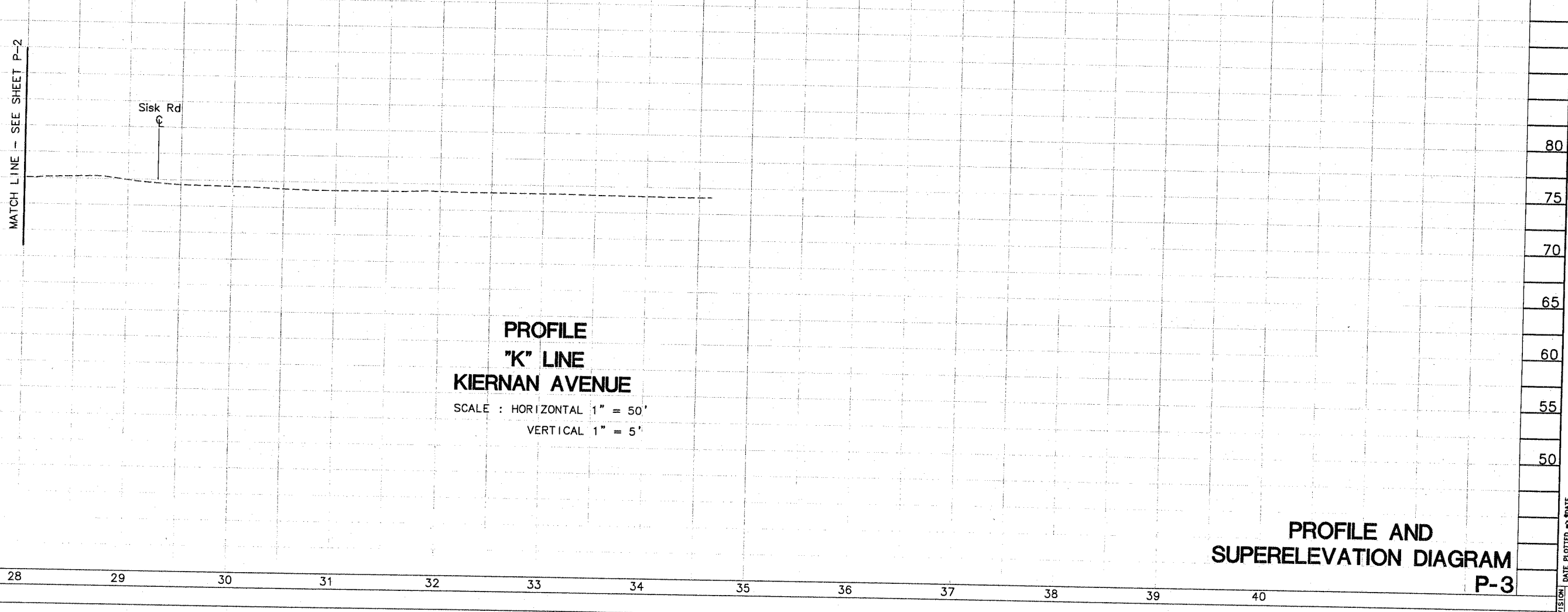
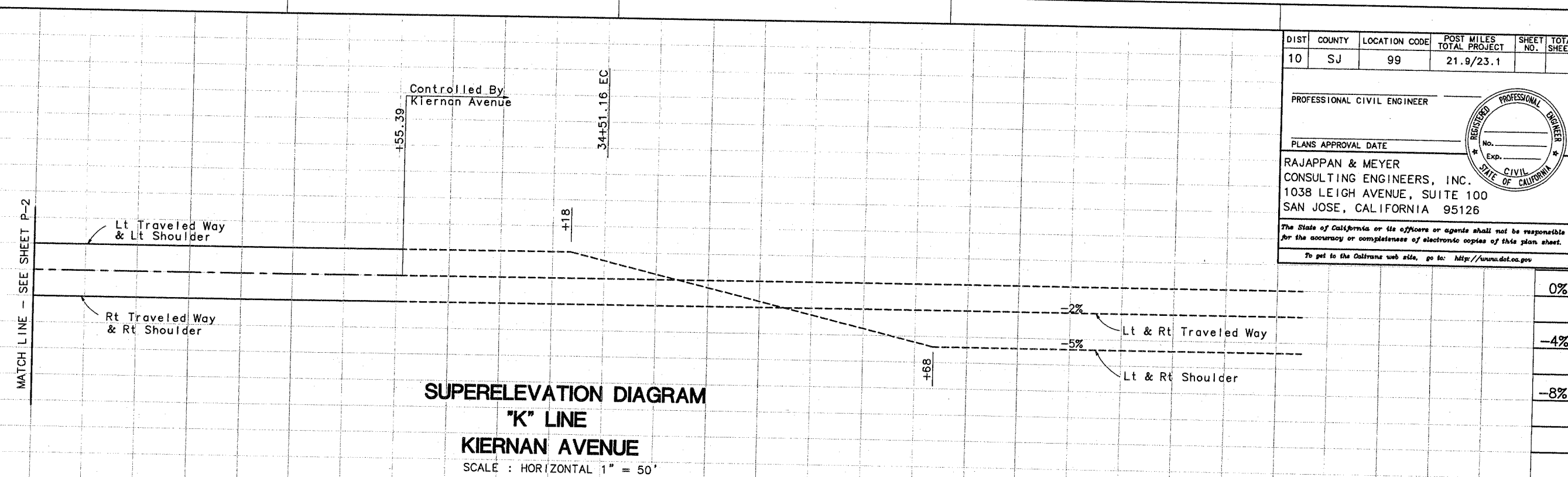
PLANS APPROVAL DATE

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



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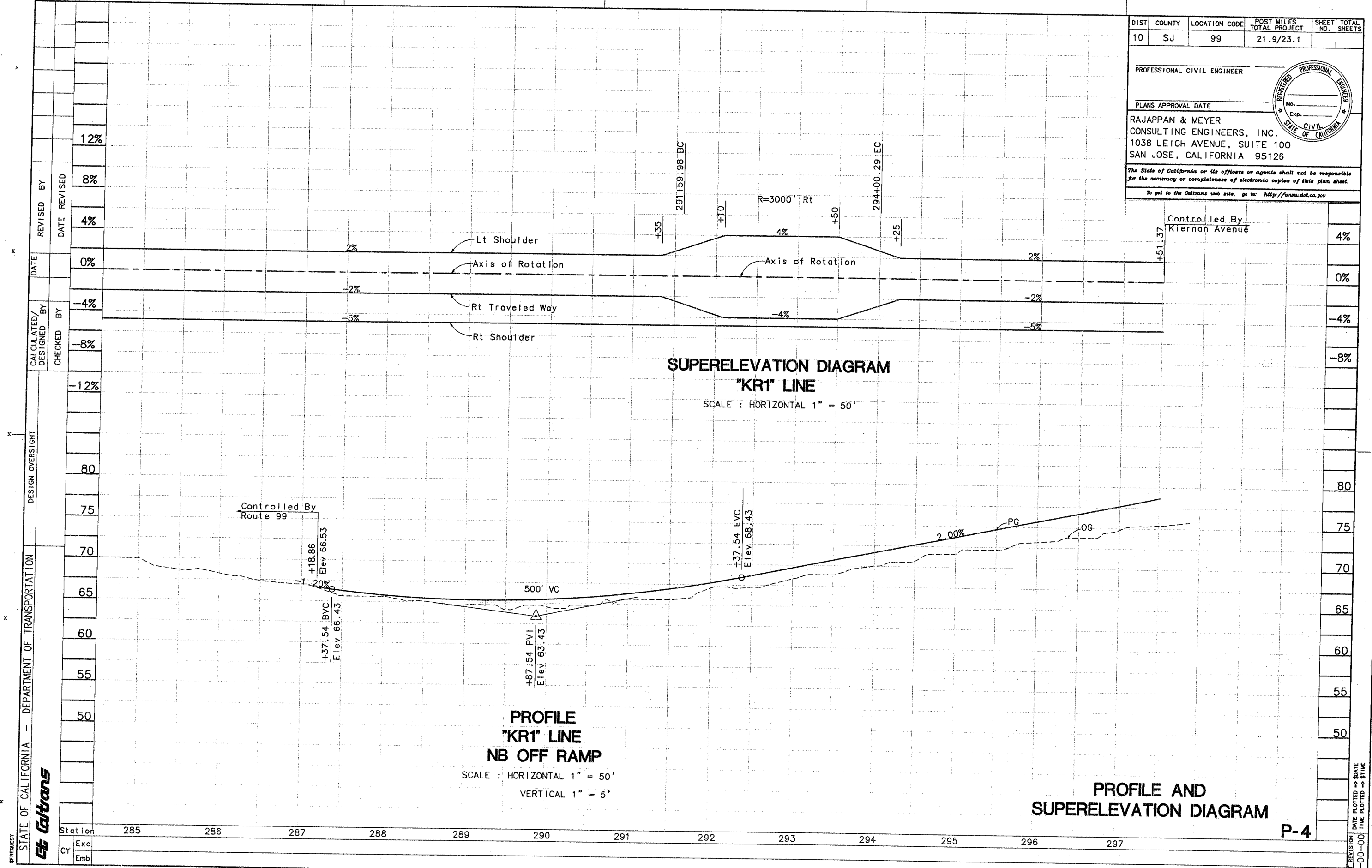
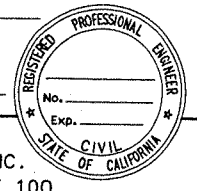
PROFILE AND SUPERELEVATION DIAGRAM P-3

LAST REVISION DATE PLOTTED BY DATE THE PLOTTED BY TIME
00-00-00

RELATIVE BORDER SCALE IS IN INCHES

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

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ	99	21.9/23.1		
PROFESSIONAL CIVIL ENGINEER					
PLANS APPROVAL DATE					
RAJAPPAN & MEYER CONSULTING ENGINEERS, INC. 1038 LEIGH AVENUE, SUITE 100 SAN JOSE, CALIFORNIA 95126					
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<small>To get to the Caltrans web site, go to: http://www.dot.ca.gov</small>					



\$REQUEST
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Caltrans
 DESIGN OVERSIGHT
 CALCULATED/DESIGNED BY
 CHECKED BY
 DATE
 REVISED BY
 DATE REVISED

12%
 8%
 4%
 0%
 -4%
 -8%
 -12%
 80
 75
 70
 65
 60
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 50
 4%
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 -4%
 -8%
 80
 75
 70
 65
 60
 55
 50
 P-4
 LAST REVISION DATE PLOTTED → \$DATE
 00-00-00 TIME PLOTTED → \$TIME

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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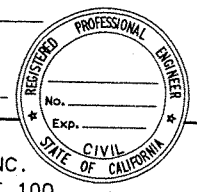
PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

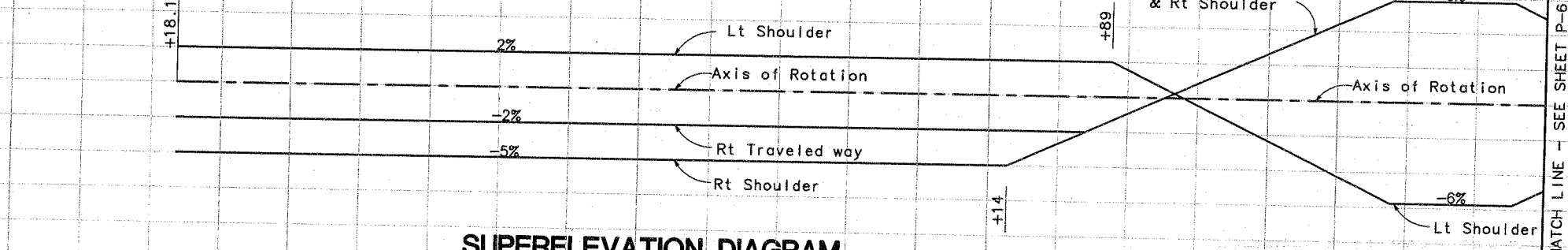
RAJAPPAN & MEYER
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1038 LEIGH AVENUE, SUITE 100
SAN JOSE, CALIFORNIA 95126

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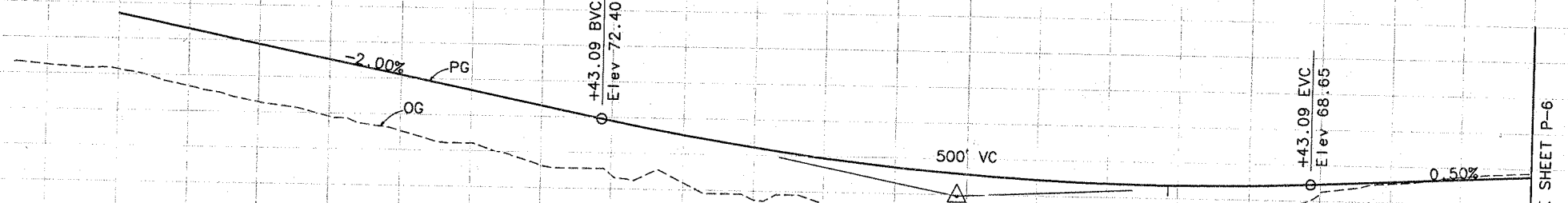


Controlled By
Klerner Avenue



**SUPERELEVATION DIAGRAM
"KR2" LINE
NB ON RAMP**

SCALE : HORIZONTAL 1" = 50'



**PROFILE
"KR2" LINE
NB ON RAMP**

SCALE : HORIZONTAL 1" = 50'
VERTICAL 1" = 5'

**PROFILE AND
SUPERELEVATION DIAGRAM**

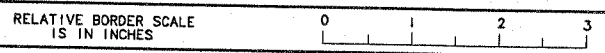
P-5

REVISION	DATE	REVISION BY	DATE REVISION
			12%
			8%
			4%
			0%
			-4%
			-8%
			-12%

DESIGN OVERSIGHT	DESIGNED BY	CHECKED BY

DEPARTMENT OF TRANSPORTATION	STATION
	298
	299
	300
	301
	302
	303
	304
	305
	306
	307
	308

CY	Exc	Emb



USERNAME → USER
DGN FILE → \$REQUEST

LAST REVISION
00-00-00
DATE PLOTTED → \$DATE
TIME PLOTTED → \$TIME

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS
10	SJ	99	21.9/23.1	

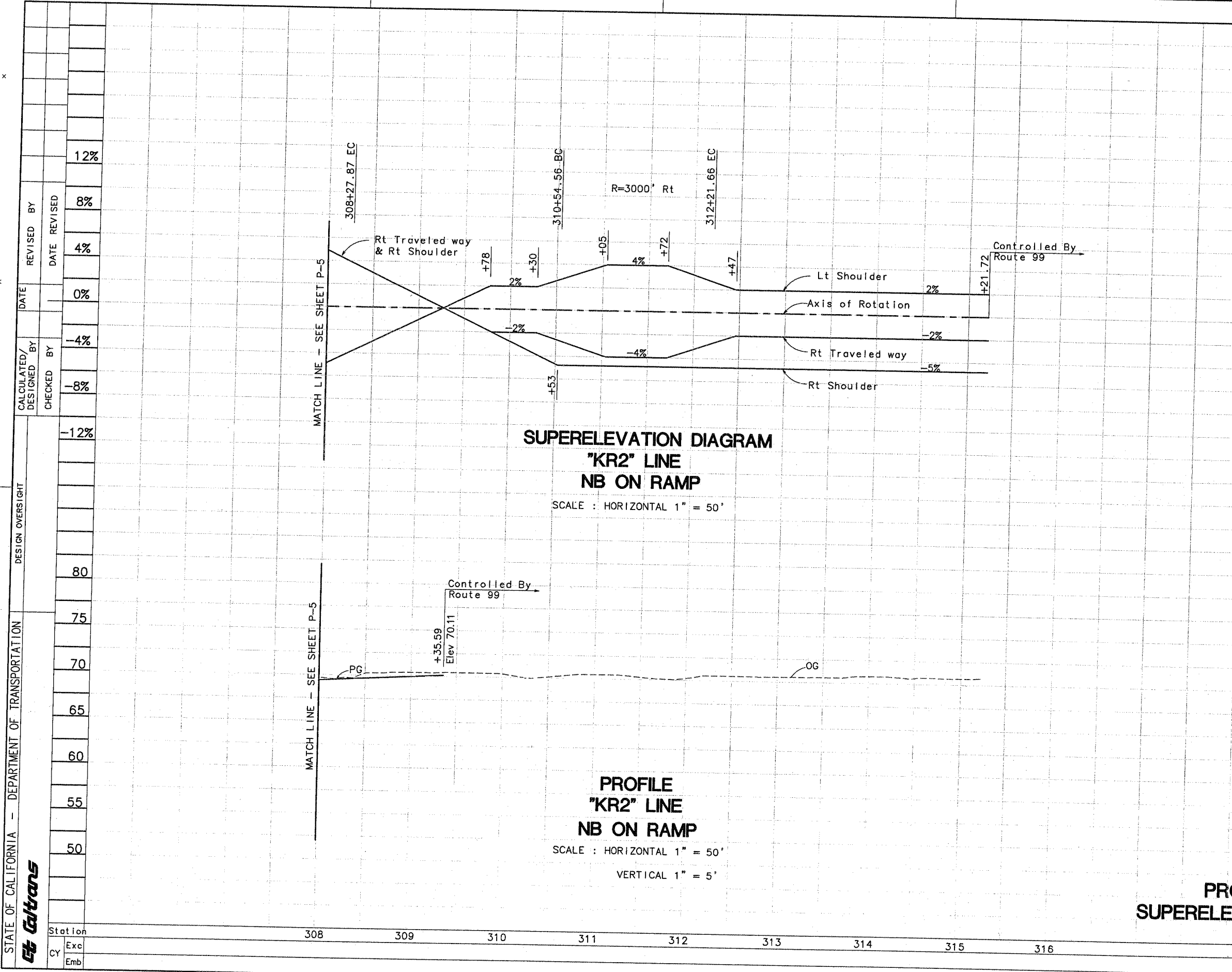
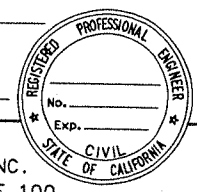
PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

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

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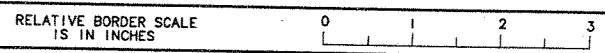
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PROFILE AND SUPERELEVATION DIAGRAM
P-6

#REQUEST	STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN OVERSIGHT	CHECKED BY	DATE	REVISOR	DATE	REVISION
	Exc						
	Emb						

4%
0%
-4%
80
75
70
65
60
55
50



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

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

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ	99	21.9/23.1		

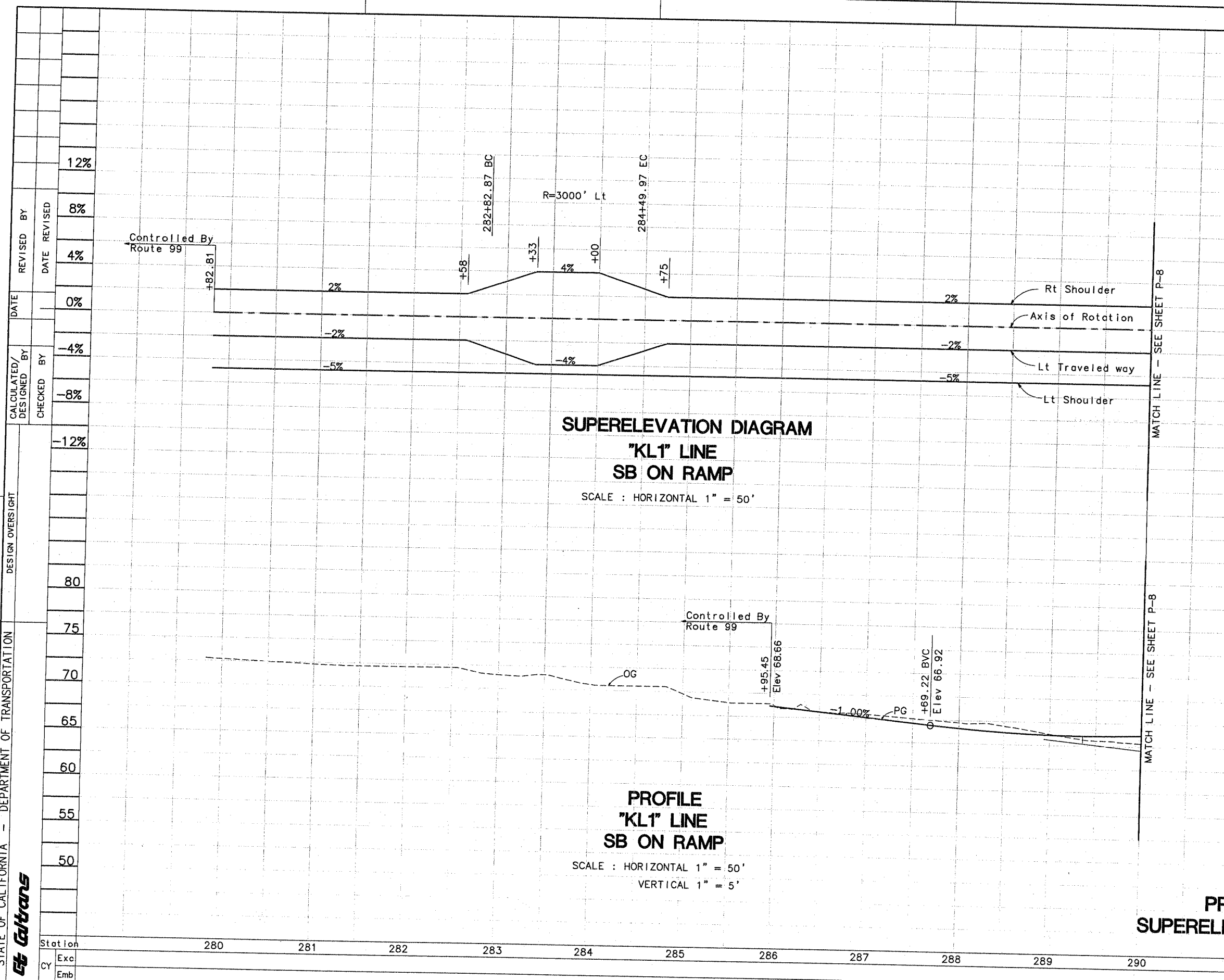
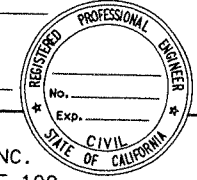
PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE _____

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

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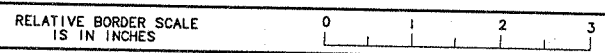
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PROFILE AND SUPERELEVATION DIAGRAM
P-7

#REQUEST STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN OVERSIGHT
 CALCULATED/DESIGNED BY
 CHECKED BY
 DATE
 REVISED BY
 DATE REVISED

Station	280	281	282	283	284	285	286	287	288	289	290
Exc											
Emb											



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

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

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ	99	21.9/23.1		

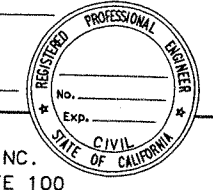
PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

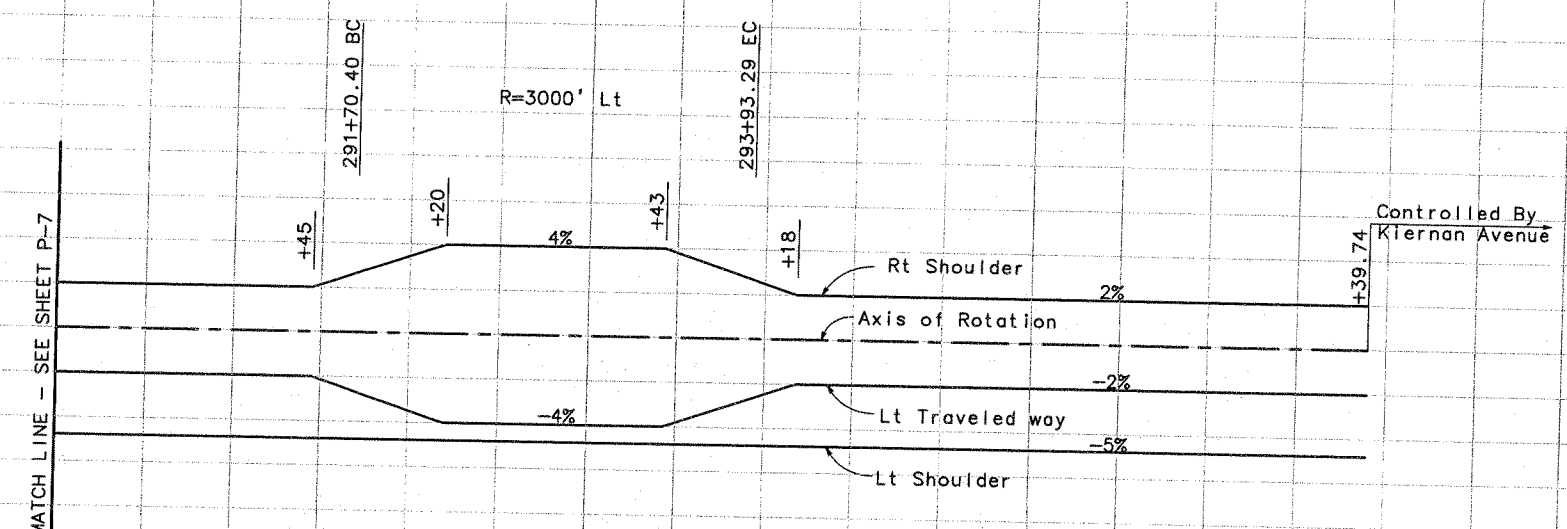
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SAN JOSE, CALIFORNIA 95126

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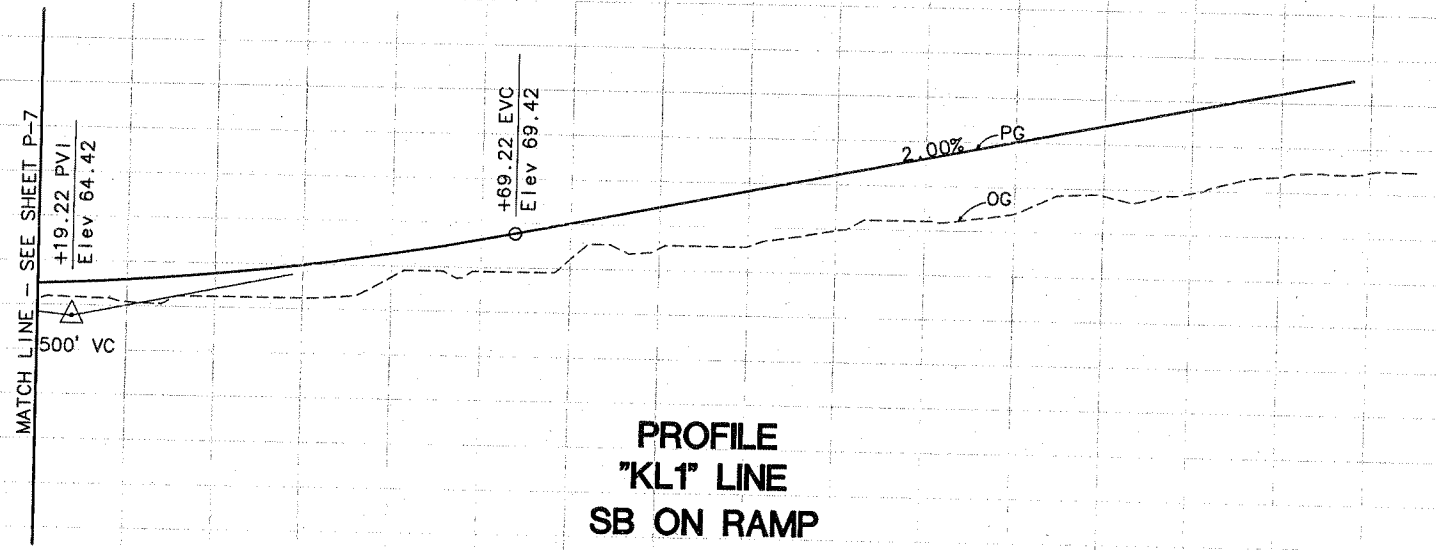
To get to the Caltrans web site, go to: <http://www.dot.ca.gov>



DESIGN OVERSIGHT	REVISOR	DATE	REVISION
CALCULATED/DESIGNED BY	CHECKED BY	DATE	REVISION
DESIGNATION			
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION			
Caltrans			
STATION			
CY	Exc		
	Emb		



SUPERELEVATION DIAGRAM
"KL1" LINE
SB ON RAMP
SCALE : HORIZONTAL 1" = 50'



PROFILE
"KL1" LINE
SB ON RAMP
SCALE : HORIZONTAL 1" = 50'
VERTICAL 1" = 5'

PROFILE AND SUPERELEVATION DIAGRAM
P-8

Station	290	291	292	293	294	295	296	297	298	299
CY	Exc									
Emb										

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

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ	99	21.9/23.1		

PROFESSIONAL CIVIL ENGINEER

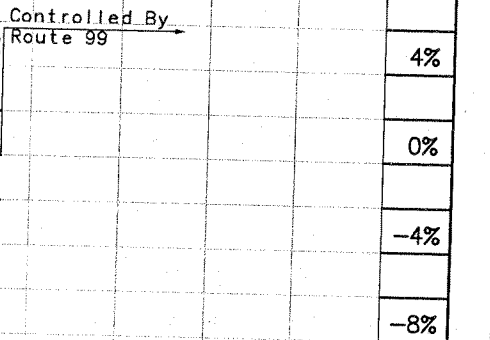
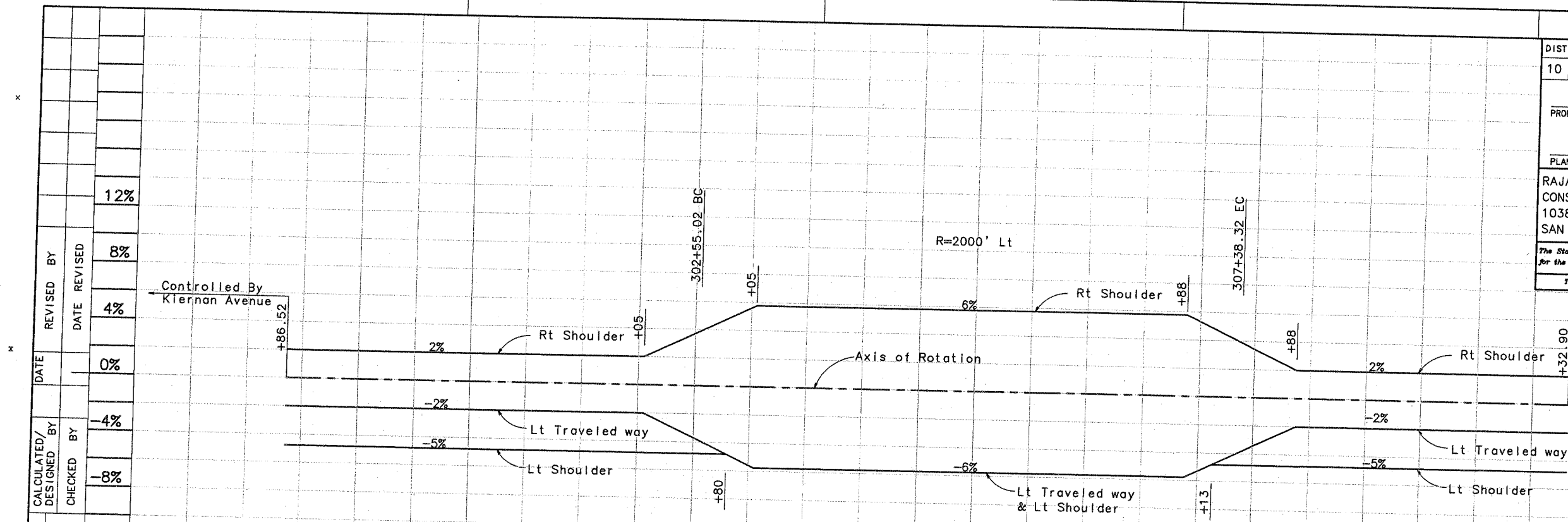
REGISTERED PROFESSIONAL ENGINEER
 No. _____
 Exp. _____
 CIVIL
 STATE OF CALIFORNIA

PLANS APPROVAL DATE _____

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

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DESIGN OVERSIGHT

REVISIONS

NO.	DATE	BY	REVISION
1			
2			
3			
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6			
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11			
12			

REVISIONS CHECKED BY: _____
DESIGNED BY: _____
CHECKED BY: _____

Station	298	299+	300	301	302	303	304	305	306	307	308	309	310
Exc													
Emb													

PROFILE AND SUPERELEVATION DIAGRAM
P-9

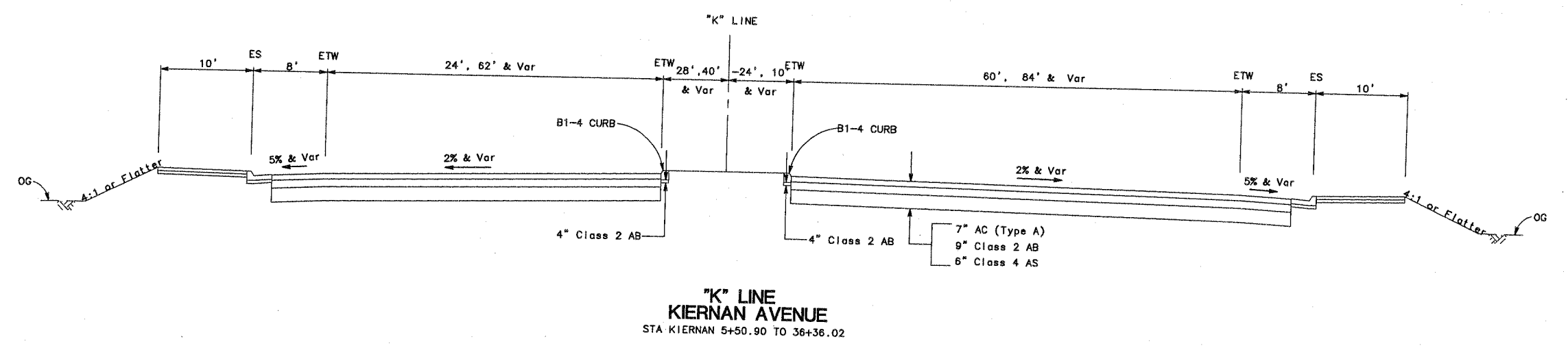
ATTACHMENT C
GEOMETRIC APPROVAL DRAWINGS (ALTERNATIVE 2)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

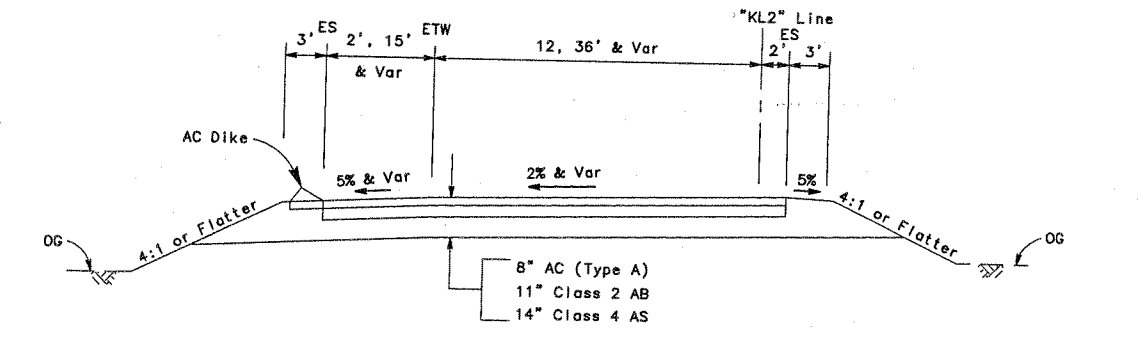
REVISION NO.	DATE	BY	REASON

DATE	BY	REVISION

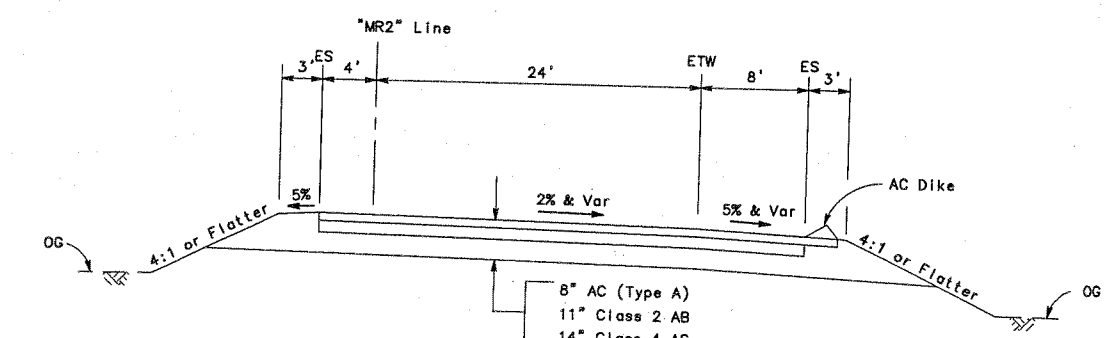
DESIGNED BY	CHECKED BY	DATE



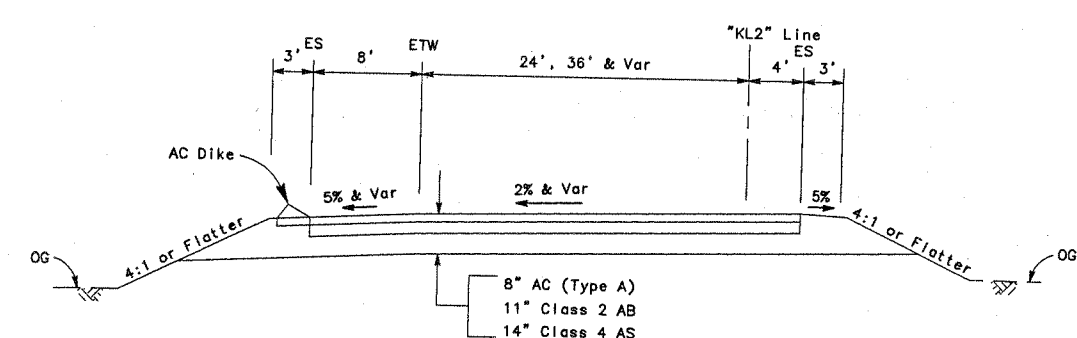
**"K" LINE
KIERNAN AVENUE**
STA KIERNAN 5+50.90 TO 36+36.02



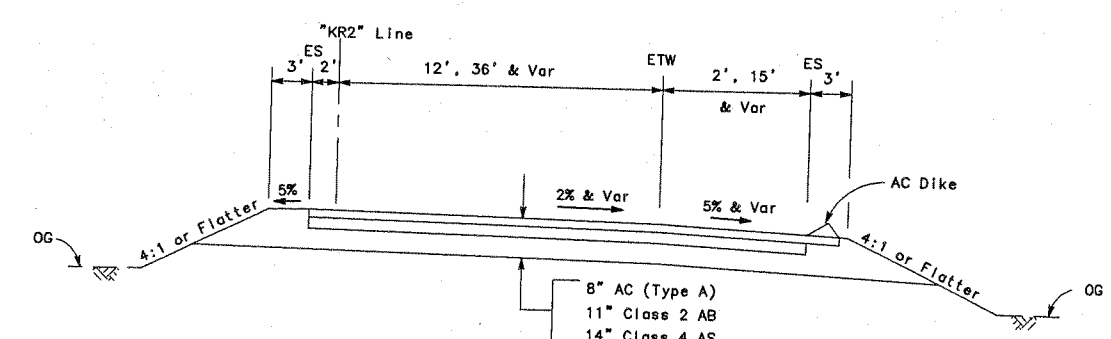
**"KL1" LINE
SB ON RAMP**
STA KL1 288+95.40 TO 308+06.18



**"KR1" LINE
NB OFF RAMP**
STA KR1 284+48.21 TO 297+88.03



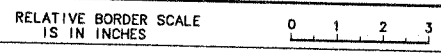
**"KL2" LINE
SB OFF RAMP**
STA KL2 285+16.72 TO 313+73.27



**"KR2" LINE
NB ON RAMP**
STA KR2 297+27.60 TO 315+21.72

**ROUTE 99 / KIERNAN AVENUE
ALTERNATIVE 2
TYPICAL CROSS SECTIONS**

X-1



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

CU

EA 10-01 330K

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

PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

CITY OF STOCKTON
 22 EAST WEBER AVENUE
 STOCKTON, CALIFORNIA 95202

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

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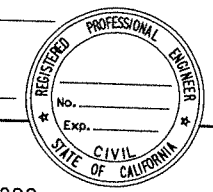
To get to the Caltrans web site, go to: <http://www.dot.ca.gov>



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

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

PROFESSIONAL CIVIL ENGINEER
 PLANS APPROVAL DATE
 CITY OF STOCKTON
 22 EAST WEBER AVENUE
 STOCKTON, CALIFORNIA 95202



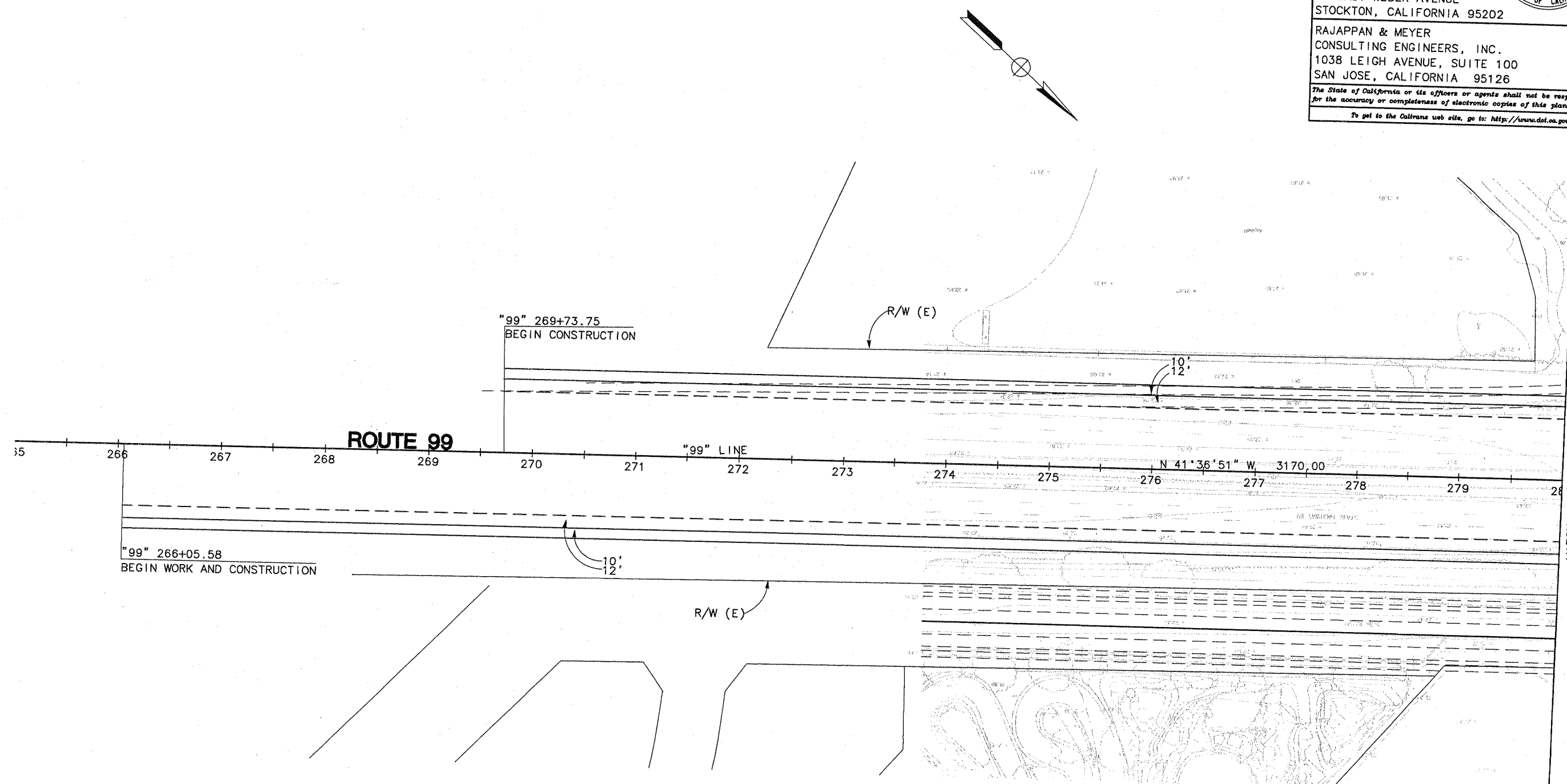
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 SAN JOSE, CALIFORNIA 95126

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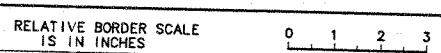
REVISED BY	DATE	CALCULATED/DESIGNED BY	CHECKED BY

DESIGN OVERSIGHT

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans



**ROUTE 99 / KIERNAN AVENUE
 ALTERNATIVE 2
 LAYOUT**
 SCALE 1"=50'



USERNAME => USER
 DGN FILE => PROJECT

DATE PLOTTED => DATE
 TIME PLOTTED => TIME
 LAST REVISION
 00-00-00

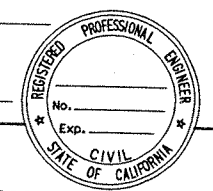
CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
(6)	534.577	300.00	102°05'48"	371.109
(8)	240.305	3000.00	4°35'22"	120.217
(9)	167.096	3000.00	3°11'29"	83.570

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

PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

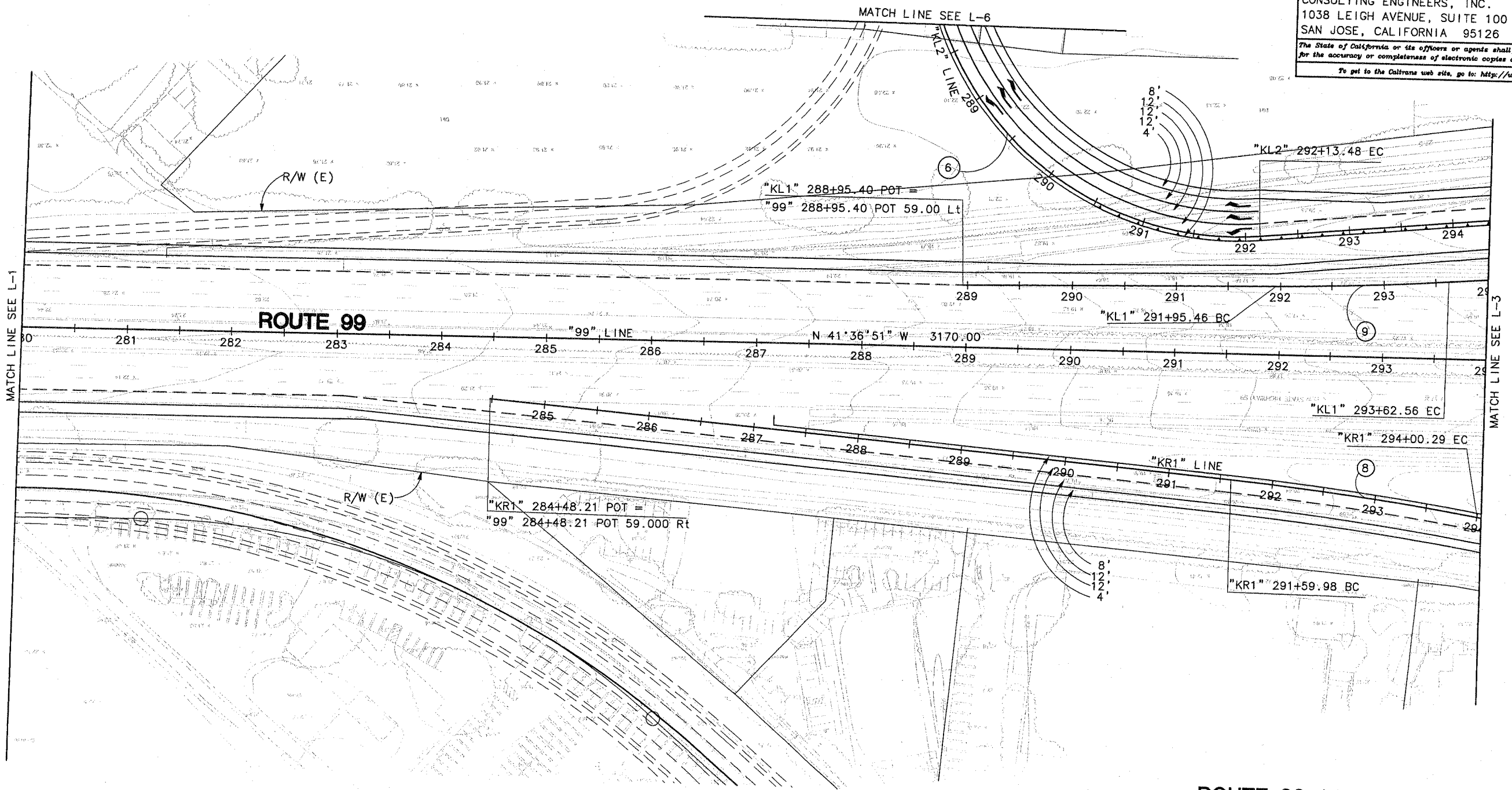
CITY OF STOCKTON
22 EAST WEBER AVENUE
STOCKTON, CALIFORNIA 95202



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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

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REVISOR

DATE

BY

DATE

BY

ROUTE 99 / KIERNAN AVENUE
ALTERNATIVE 2
LAYOUT
SCALE 1"=50'

RELATIVE BORDER SCALE
15 IN INCHES

0 1 2 3

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

CU

L-2

LAST REVISION

00-00-00

DATE PLOTTED => \$DATE

TIME PLOTTED => \$TIME

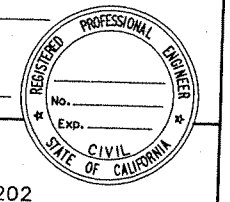
CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
①	1325.35	4750.00	15°59'12"	667.01
⑦	514.742	5000.00	5°53'55"	257.598
⑩	455.849	300.00	87°03'39"	284.992
⑪	189.158	2000.00	5°25'08"	94.649

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

PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

CITY OF STOCKTON
22 EAST WEBER AVENUE
STOCKTON, CALIFORNIA 95202

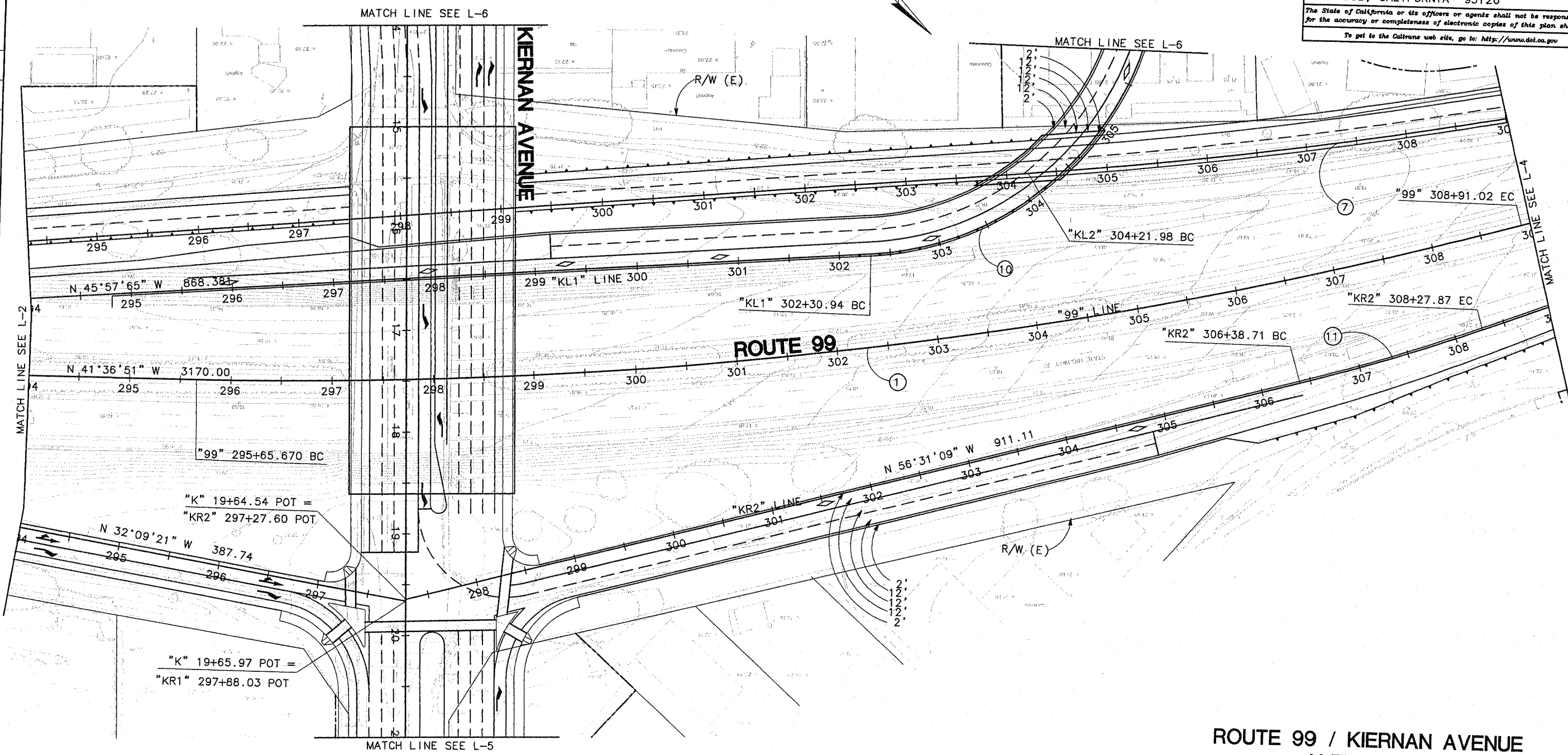


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 CALCULATED/DESIGNED BY
 CHECKED BY
 DATE
 REVISED BY
 DATE REVISED



**ROUTE 99 / KIERNAN AVENUE
ALTERNATIVE 2
LAYOUT**
SCALE 1"=50'

L-3

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

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

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

CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
12	167.096	3000.00	3°11'29"	83.570

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

PROFESSIONAL CIVIL ENGINEER

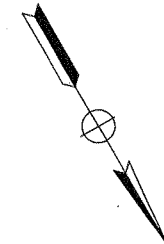
PLANS APPROVAL DATE

CITY OF STOCKTON
22 EAST WEBER AVENUE
STOCKTON, CALIFORNIA 95202

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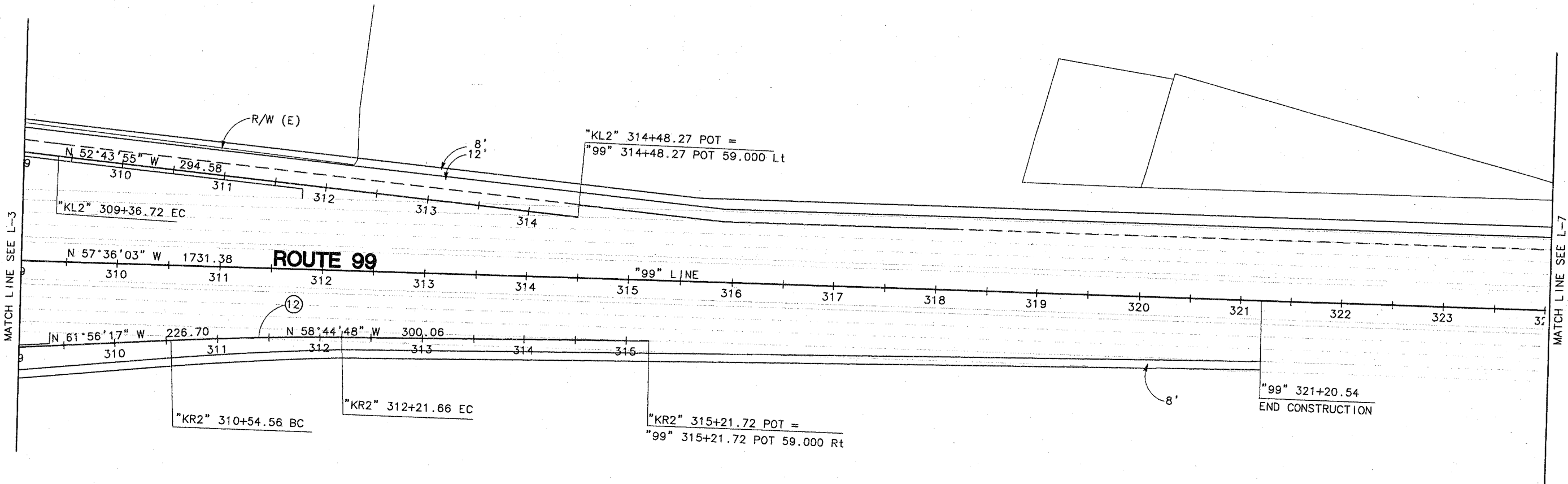


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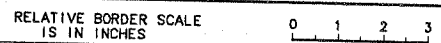
DATE	REVISOR	BY	DATE	REVISOR	BY

DATE	CHECKED	BY

DESIGN OVERSIGHT



ROUTE 99 / KIERNAN AVENUE
ALTERNATIVE 2
LAYOUT
 SCALE 1"=50'



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

LAST REVISION DATE PLOTTED \$DATE
 00-00-00 TIME PLOTTED \$TIME

CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
(3)	1103.840	1476.38	42°50'18"	667.01

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

PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

CITY OF STOCKTON
22 EAST WEBER AVENUE
STOCKTON, CALIFORNIA 95202

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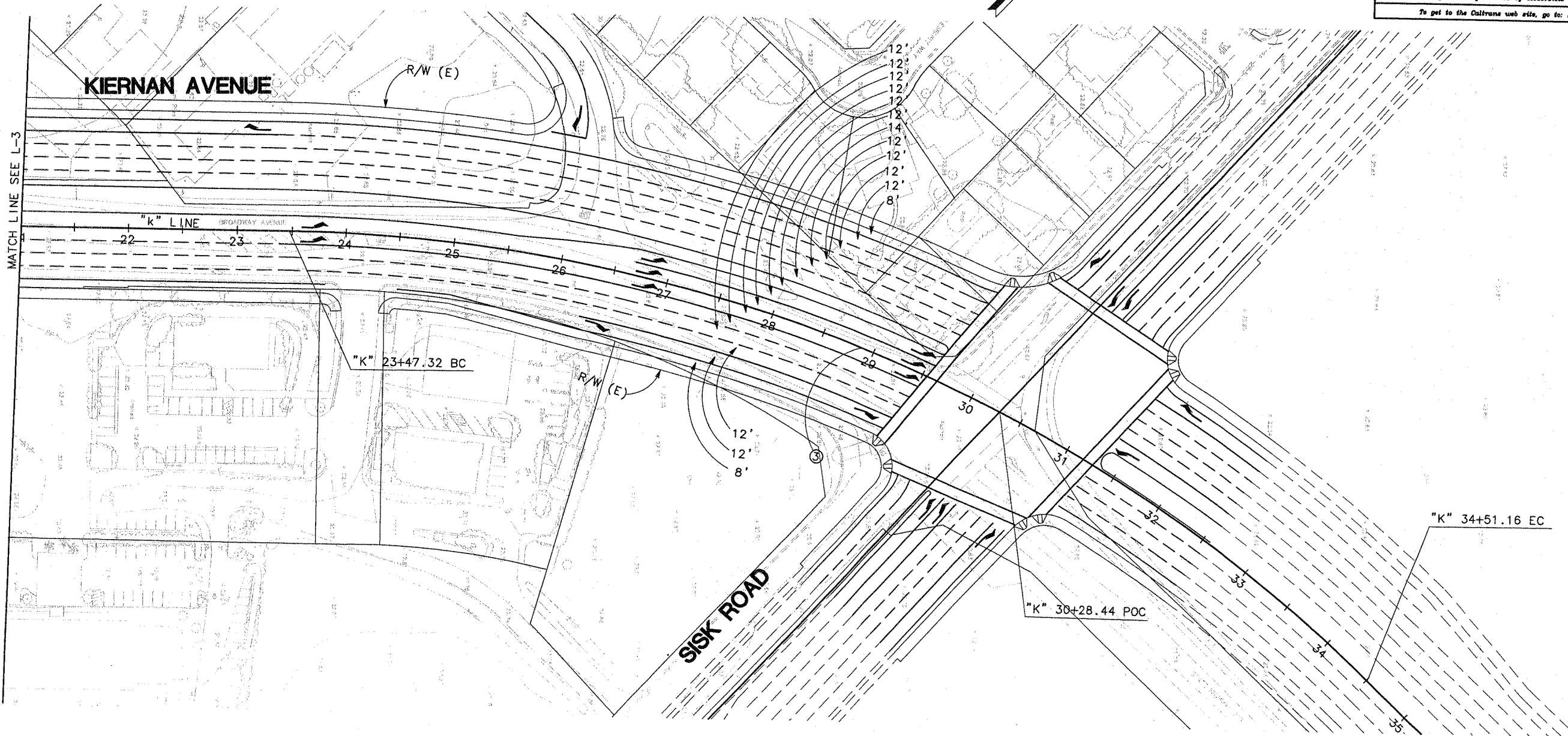


STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DESIGN OVERSIGHT

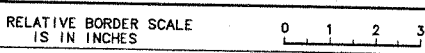
DATE REVISION BY

CHECKED BY



ROUTE 99 / KIERNAN AVENUE
ALTERNATIVE 2
LAYOUT
SCALE 1"=50'

L-5



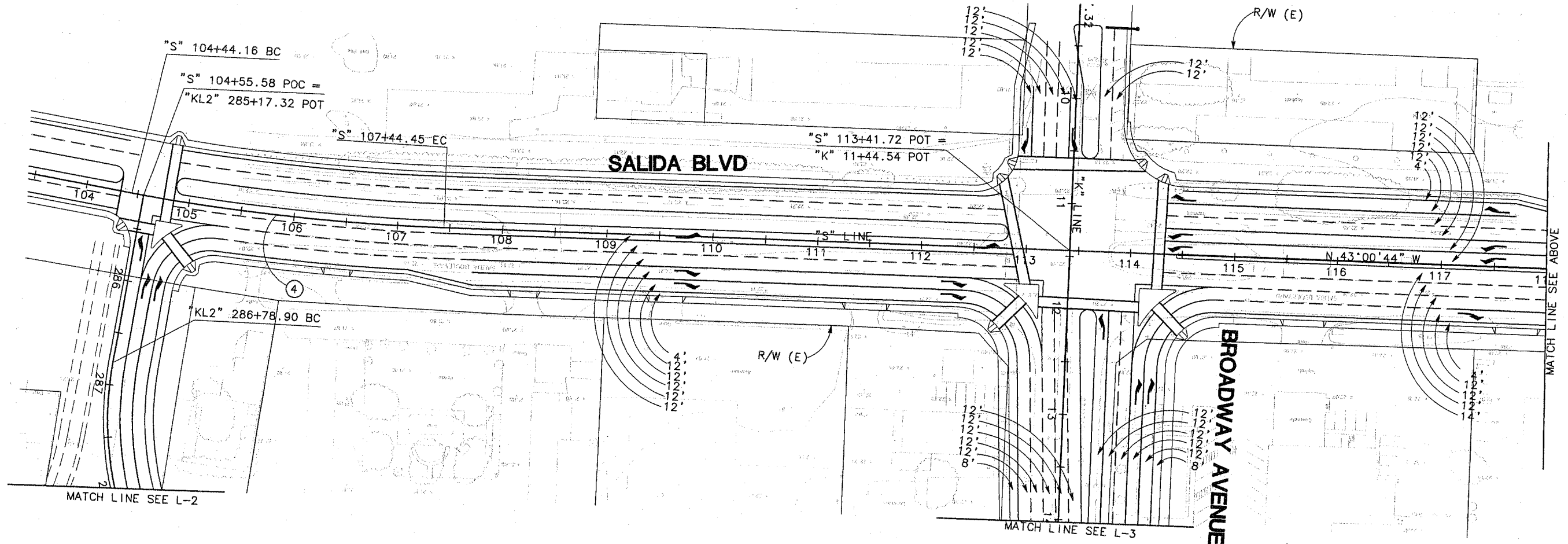
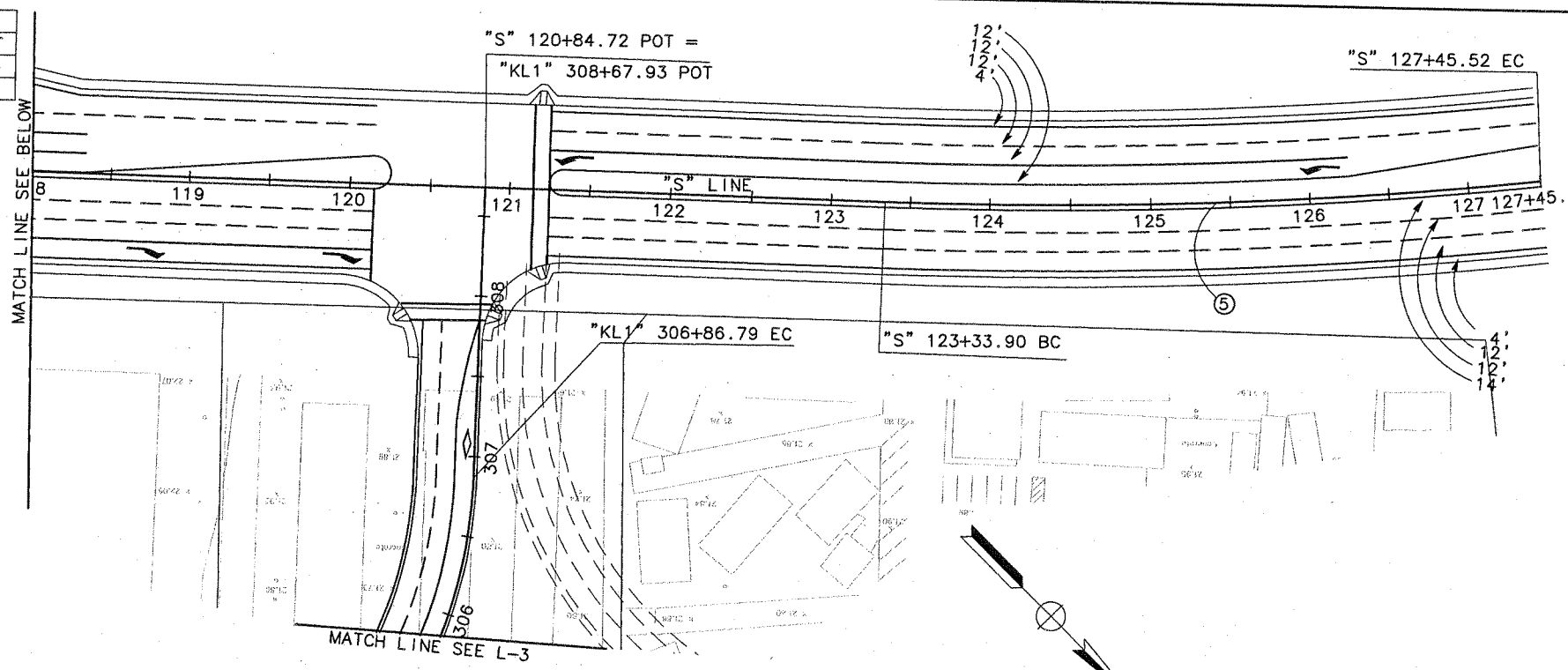
USERNAME => \$USER
DGN FILE => \$REQUEST

CU

EA 10-0L330K

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

CURVE TABLE				
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⑤	411.614	3000.00	7°51'40"	206.130

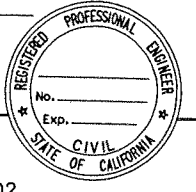


DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	STA	99	21.9/23.1		

PROFESSIONAL CIVIL ENGINEER
 PLANS APPROVAL DATE
 CITY OF STOCKTON
 22 EAST WEBER AVENUE
 STOCKTON, CALIFORNIA 95202

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 DESIGN OVERSIGHT
 CALCULATED/DESIGNED BY
 CHECKED BY
 DATE REVISOR BY
 DATE REVISOR BY



RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => USER
 DGN FILE => RDPLAN.DGN

ROUTE 99 / KIERNAN AVENUE
 ALTERNATIVE 2
 LAYOUT
 SCALE 1"=50'

L-6

DATE PLOTTED => DATE
 TIME PLOTTED => TIME
 LAST REVISION 00-00-00

CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
(2)	1010.410	4000.00	14°28'23"	507.909

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

PROFESSIONAL CIVIL ENGINEER

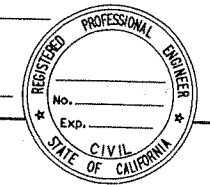
PLANS APPROVAL DATE

CITY OF STOCKTON
22 EAST WEBER AVENUE
STOCKTON, CALIFORNIA 95202

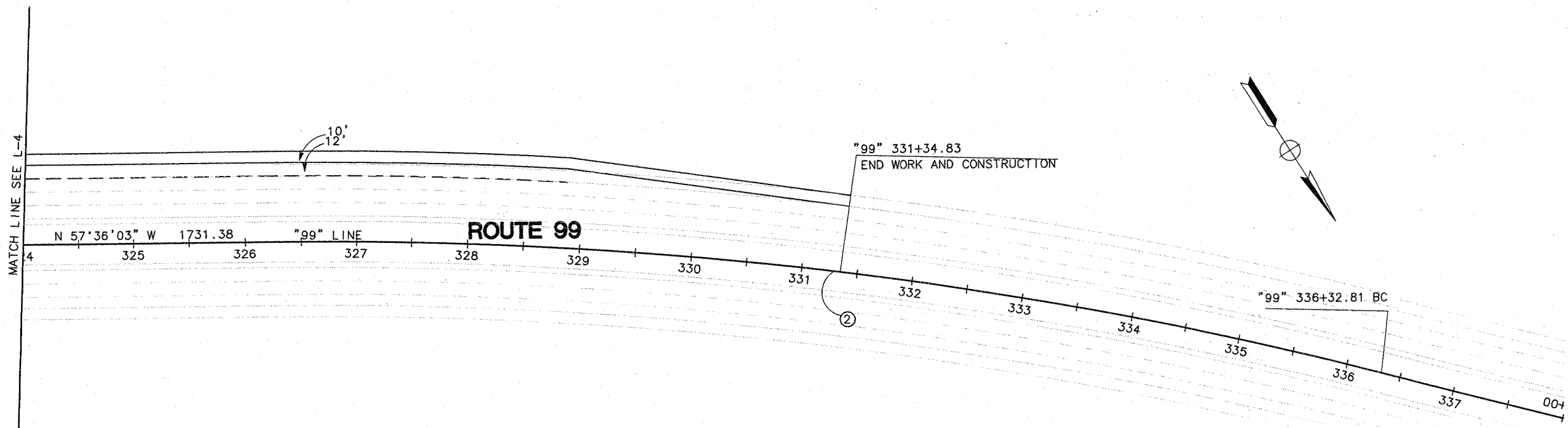
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REQUEST	DESIGN OVERSIGHT	CALCULATED/DESIGNED BY	DATE	REVISOR	BY
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		CHECKED BY		DATE	REVISOR
Caltrans					



**ROUTE 99 / KIERNAN AVENUE
ALTERNATIVE 2
LAYOUT**
SCALE 1"=50'

RELATIVE BORDER SCALE IS IN INCHES

USERNAME => \$USER
DGN FILE => \$RFN/\$PLOT

CU

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

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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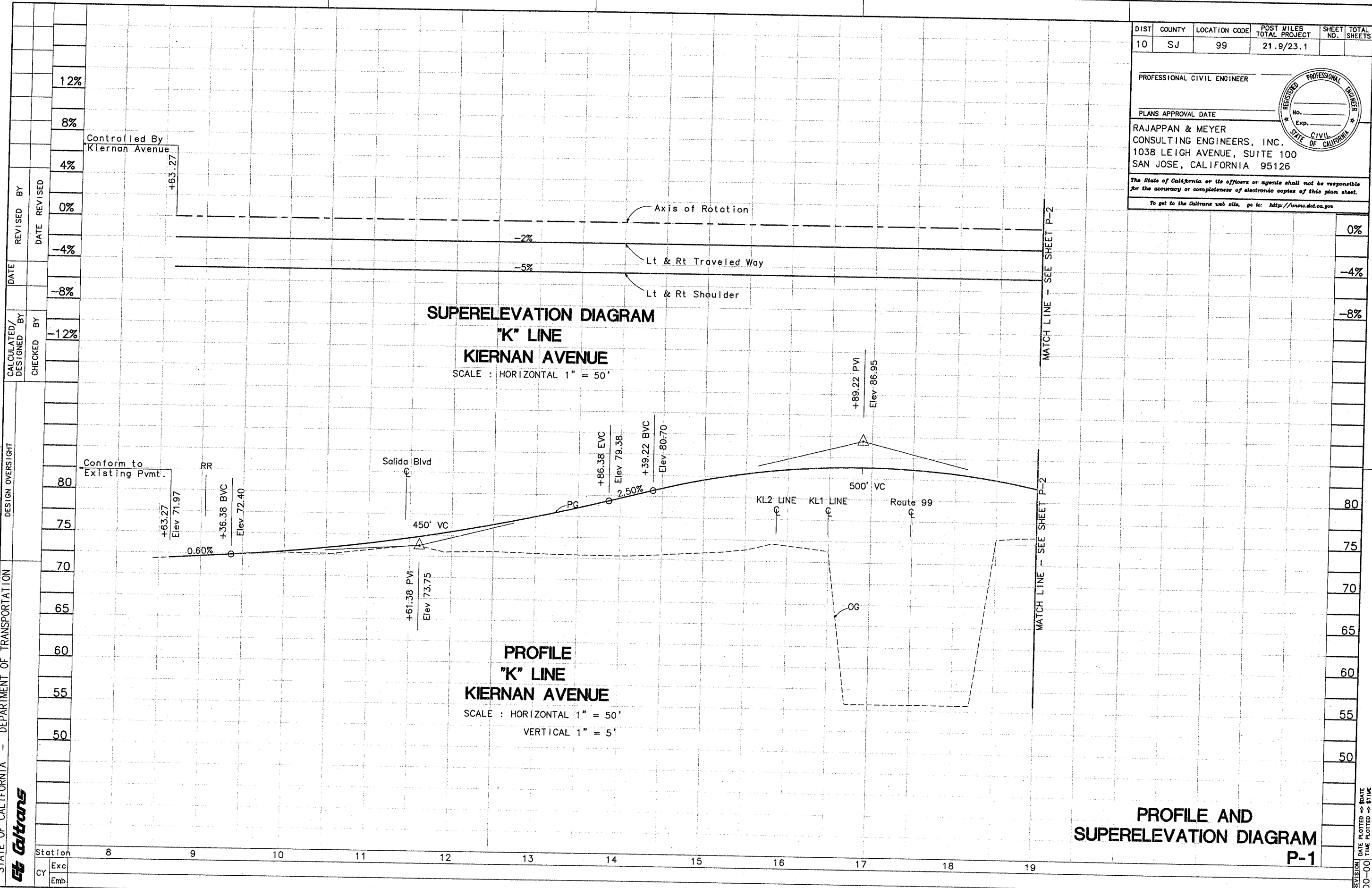
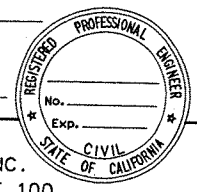
PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

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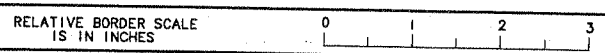


SUPERELEVATION DIAGRAM
"K" LINE
KIERNAN AVENUE
SCALE : HORIZONTAL 1" = 50'

PROFILE
"K" LINE
KIERNAN AVENUE
SCALE : HORIZONTAL 1" = 50'
VERTICAL 1" = 5'

PROFILE AND
SUPERELEVATION DIAGRAM
P-1

DATE	REVISOR	BY
	DATE	REVISOR
CALCULATED/DESIGNED BY	CHECKED BY	DATE
	CHECKED BY	DATE
DESIGN OVERSIGHT		
DEPARTMENT OF TRANSPORTATION		
STATE OF CALIFORNIA		
Caltrans		
Station	8	9
Exc		
Emb		



USERNAME → DGN FILE → \$USER \$REQUEST

LAST REVISION DATE PLOTTED → \$DATE
00-00-00 TIME PLOTTED → \$TIME

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ	99	21.9/23.1		

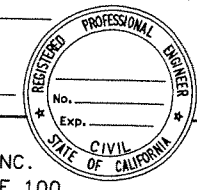
PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

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SAN JOSE, CALIFORNIA 95126

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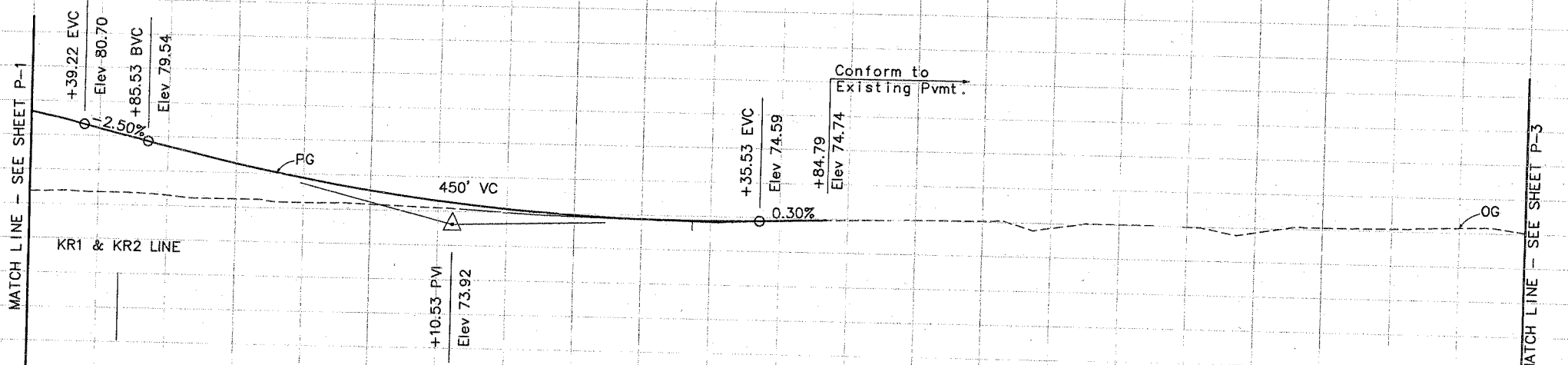
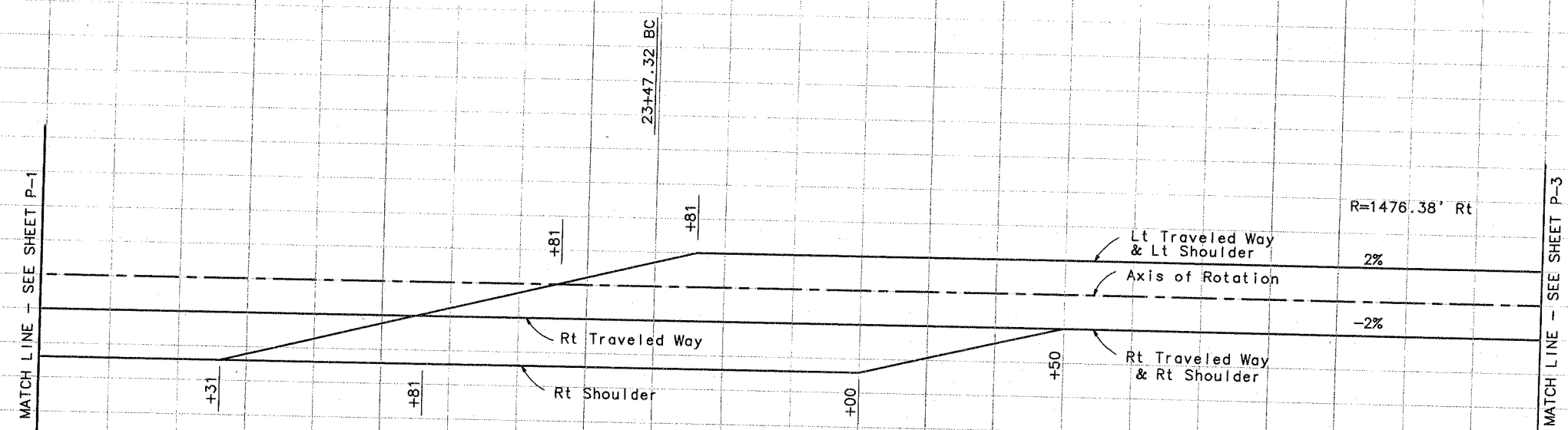
To get to the Caltrans web site, go to: <http://www.dot.ca.gov>



STATION	PERCENT
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21	4%
22	0%
23	-4%
24	-8%
25	
26	
27	
28	
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30	0%
31	-4%
32	-8%
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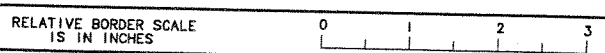
SUPERELEVATION DIAGRAM
"K" LINE
KIERNAN AVENUE
SCALE : HORIZONTAL 1" = 50'

PROFILE
"K" LINE
KIERNAN AVENUE
SCALE : HORIZONTAL 1" = 50'
VERTICAL 1" = 5'



#REQUEST	STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN OVERSIGHT	CALCULATED/DESIGNED BY		CHECKED BY		REVISOR		DATE REVISOR	
			BY	DATE	BY	DATE	BY	DATE		

Station	Exc	Emb
19		
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24		
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28		
29		
30		



USERNAME -> USER
DGN FILE -> \$REQUEST

CU EA 10-0L330K

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

PROFILE AND
SUPERELEVATION DIAGRAM
P-2



DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ	99	21.9/23.1		

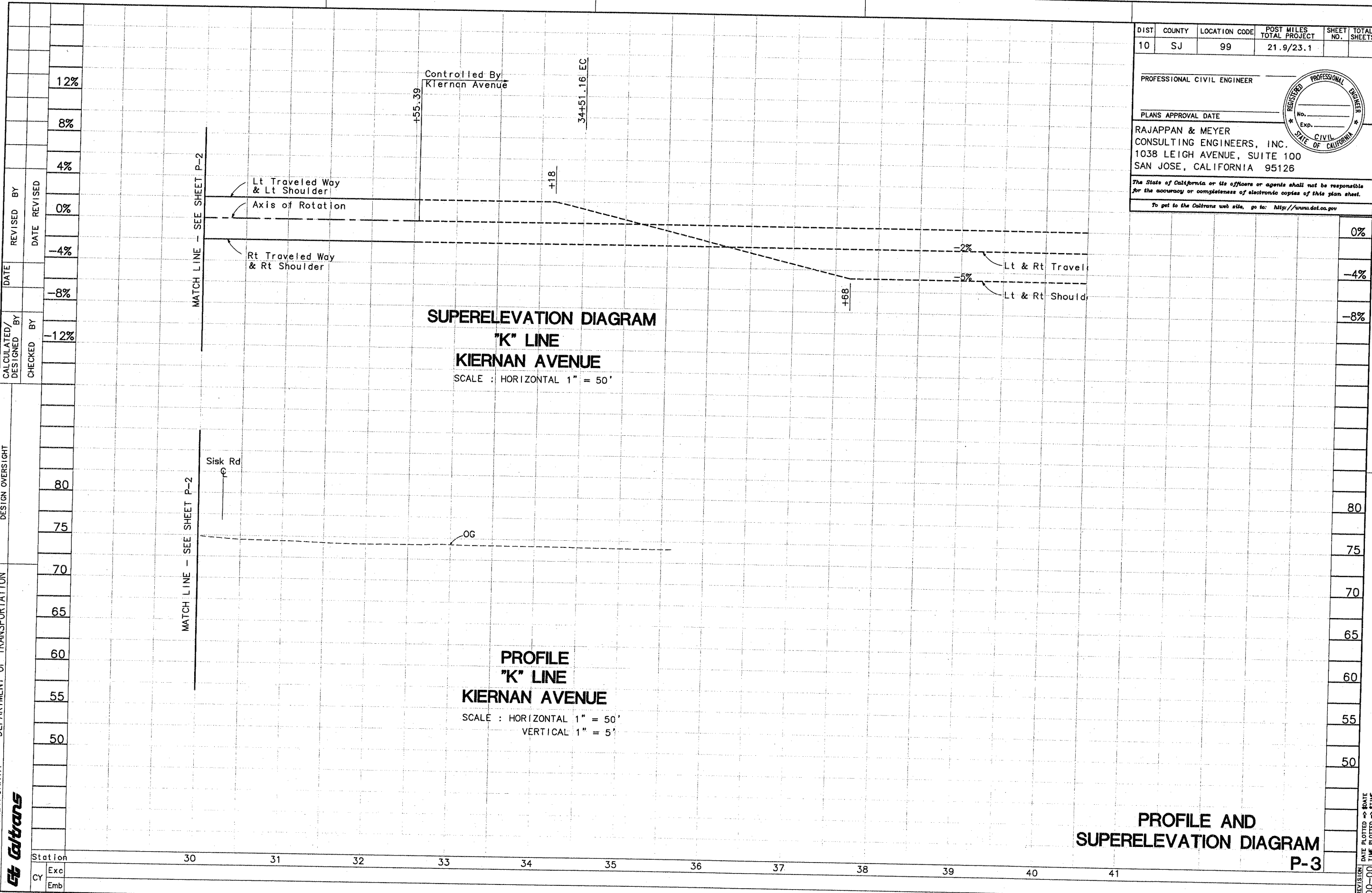
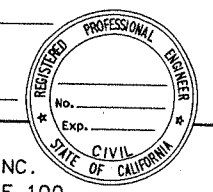
PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

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

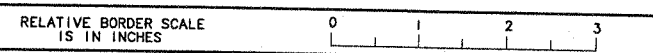
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PROFILE AND SUPERELEVATION DIAGRAM
P-3

REVISION NO.	DATE	BY	REASON
1			
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6			
7			
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9			
10			



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

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

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ	99	21.9/23.1		

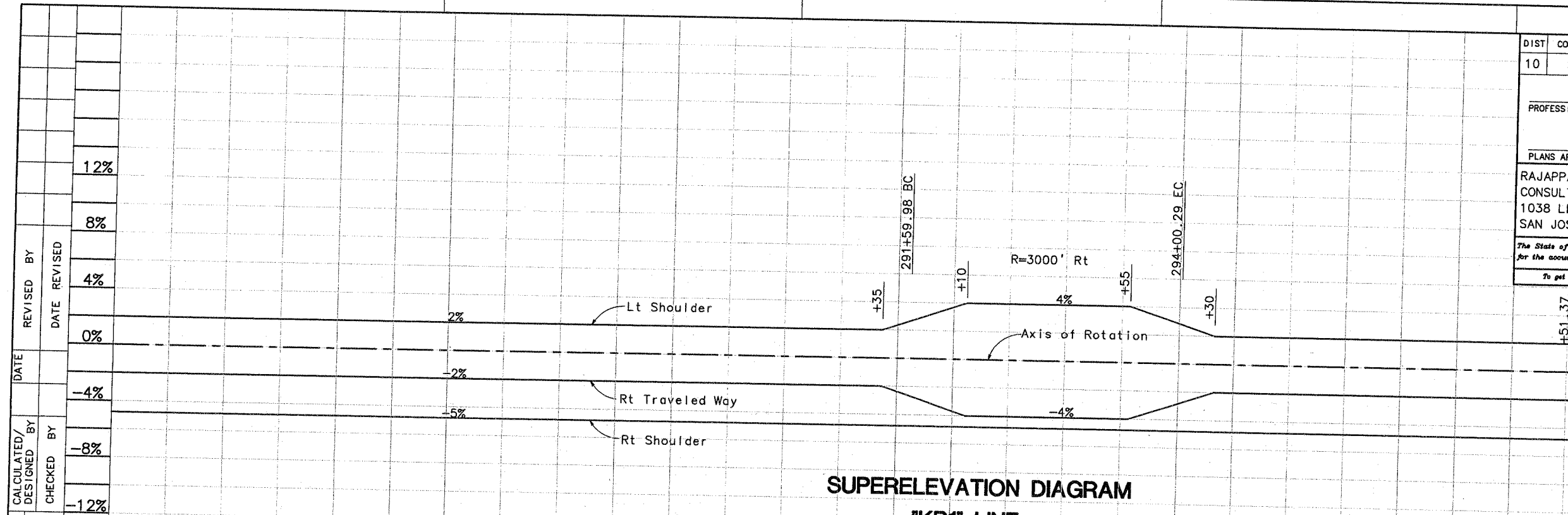
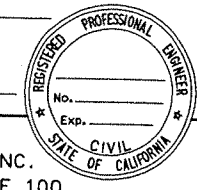
PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

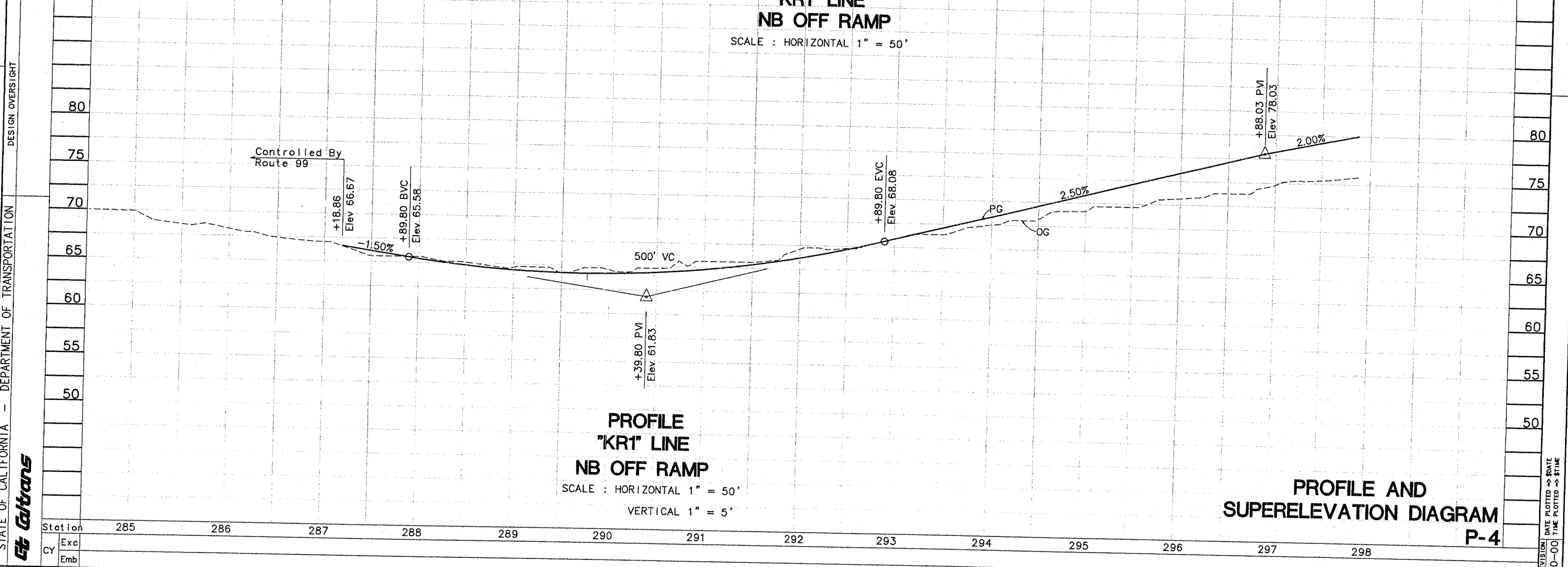
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SUPERELEVATION DIAGRAM
"KR1" LINE
NB OFF RAMP
SCALE : HORIZONTAL 1" = 50'



PROFILE
"KR1" LINE
NB OFF RAMP
SCALE : HORIZONTAL 1" = 50'
VERTICAL 1" = 5'

PROFILE AND
SUPERELEVATION DIAGRAM
P-4

Station	285	286	287	288	289	290	291	292	293	294	295	296	297	298
Exc														
Emb														



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

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 \$REQUEST
 \$DATE
 \$TIME



DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ	99	21.9/23.1		

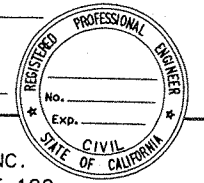
PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE _____

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

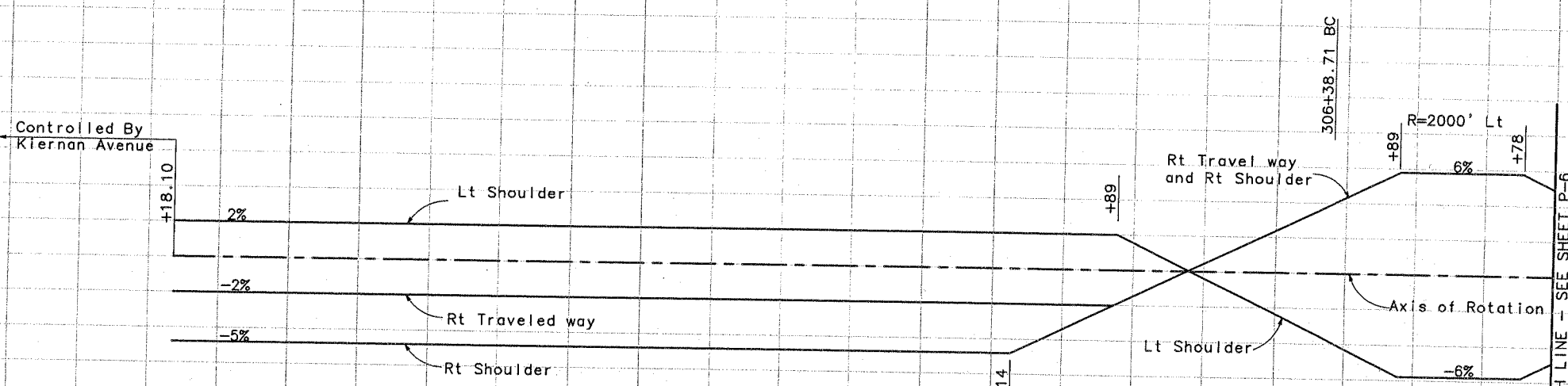
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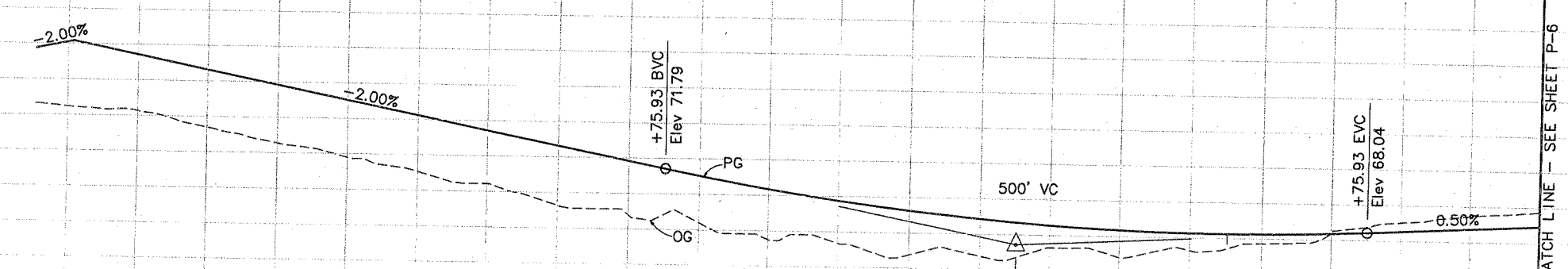


Controlled By
Kiernan Avenue

SUPERELEVATION DIAGRAM
"KR2" LINE
NB ON RAMP
SCALE : HORIZONTAL 1" = 50'



PROFILE
"KR2" LINE
NB ON RAMP
SCALE : HORIZONTAL 1" = 50'
VERTICAL 1" = 5'



PROFILE AND SUPERELEVATION DIAGRAM
P-5

	DATE	REVISION	BY
		12%	
		8%	
		4%	
		0%	
		-4%	
		-8%	
		-12%	

	DATE	DESIGNED BY	CHECKED BY

DESIGN OVERSIGHT	
DEPARTMENT OF TRANSPORTATION	
STATE OF CALIFORNIA	

\$REQUEST	STATION	Exc	Emb
	298		
	299		
	300		
	301		
	302		
	303		
	304		
	305		
	306		
	307		
	308		



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

CU EA 10-0L330K

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

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ	99	21.9/23.1		

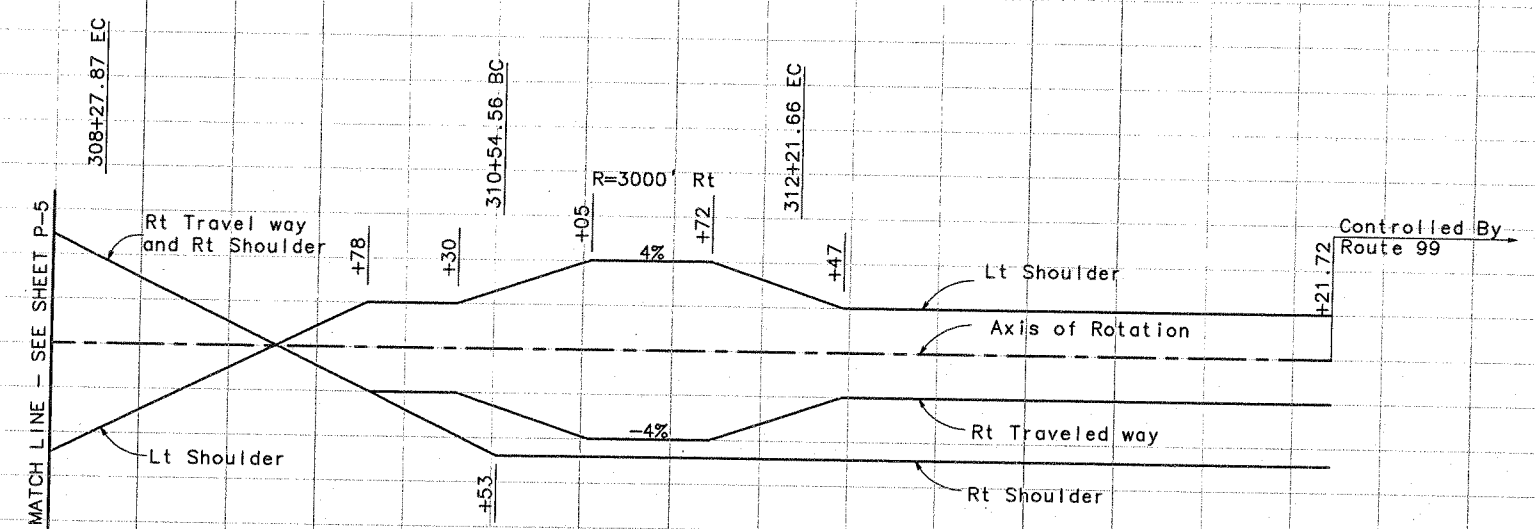
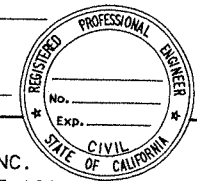
PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

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

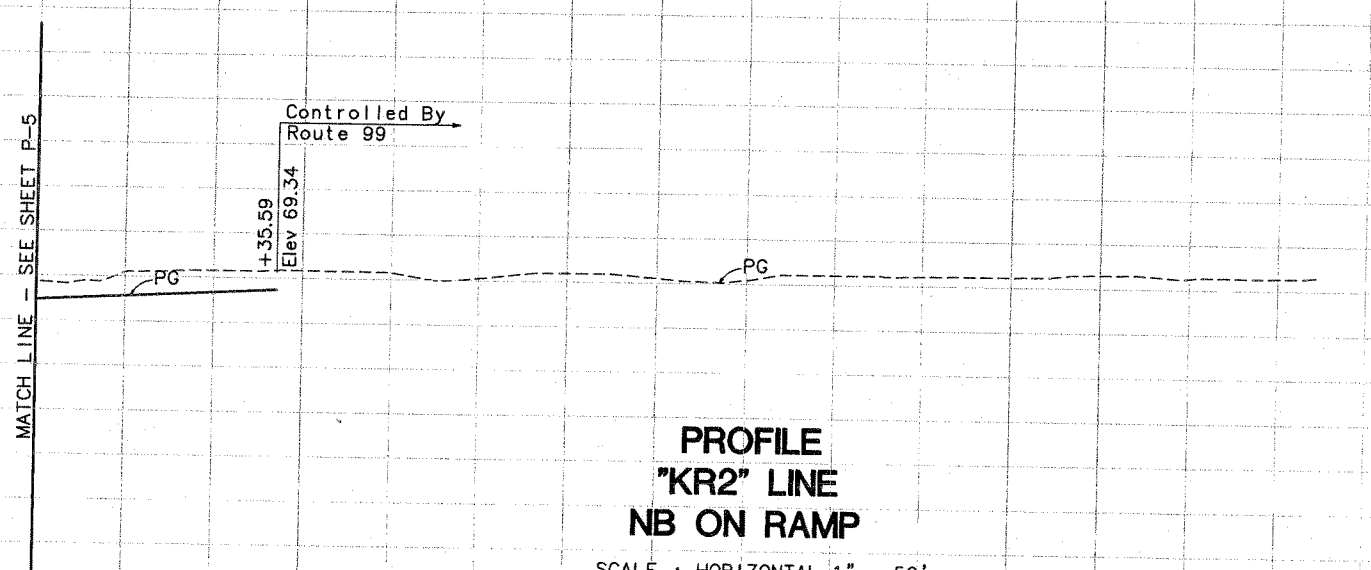
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SUPERELEVATION DIAGRAM
NB ON RAMP
"KR2" LINE

SCALE : HORIZONTAL 1" = 50'

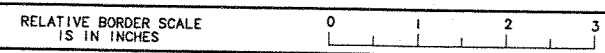


PROFILE
"KR2" LINE
NB ON RAMP

SCALE : HORIZONTAL 1" = 50'
VERTICAL 1" = 5'

PROFILE AND
SUPERELEVATION DIAGRAM
P-6

DATE	REVISOR	BY	DATE	REVISION
CALCULATED/DESIGNED BY	CHECKED BY	DATE	REVISION	
DESIGN OVERSIGHT				
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION				
Caltrans				
Station	308	309	310	311
Exc				
Emb				



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DGN FILE => \$REQUEST

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

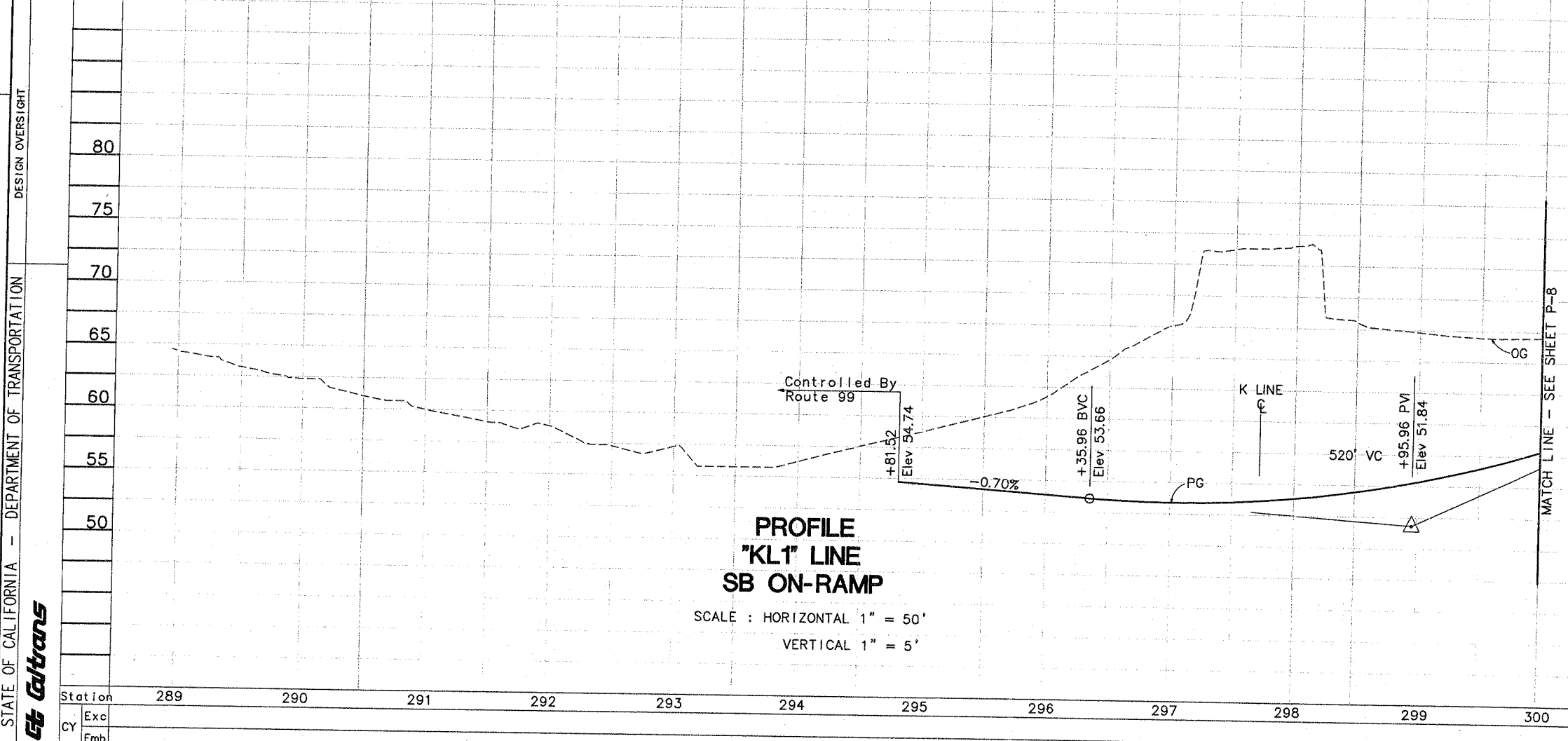
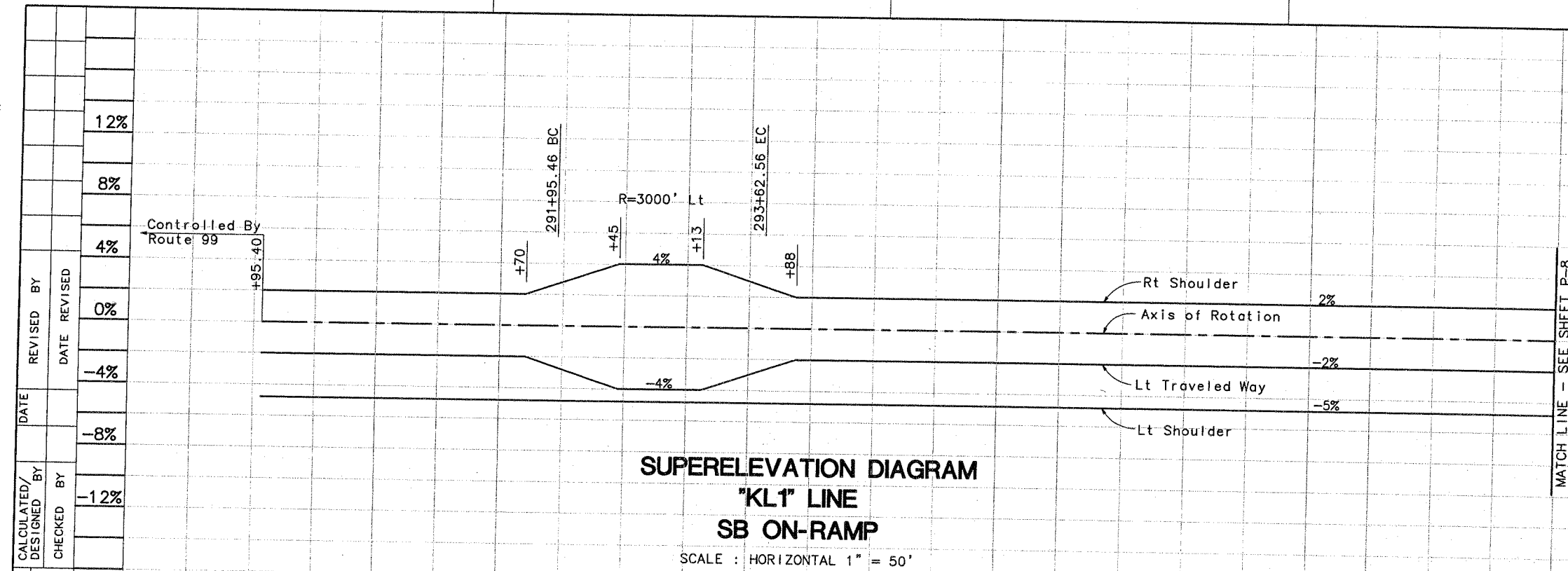
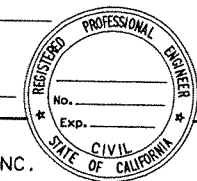
DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ	99	21.9/23.1		

PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

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

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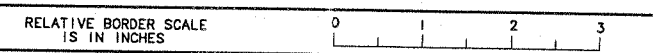


REVISION	DATE	DESIGNED BY	CHECKED BY	DESIGN OVERSIGHT

MATCH LINE - SEE SHEET P-8

PROFILE AND SUPERELEVATION DIAGRAM
P-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans



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EA 10-0L330K

DATE PLOTTED => \$DATE
TIME PLOTTED => \$TIME

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ	99	21.9/23.1		

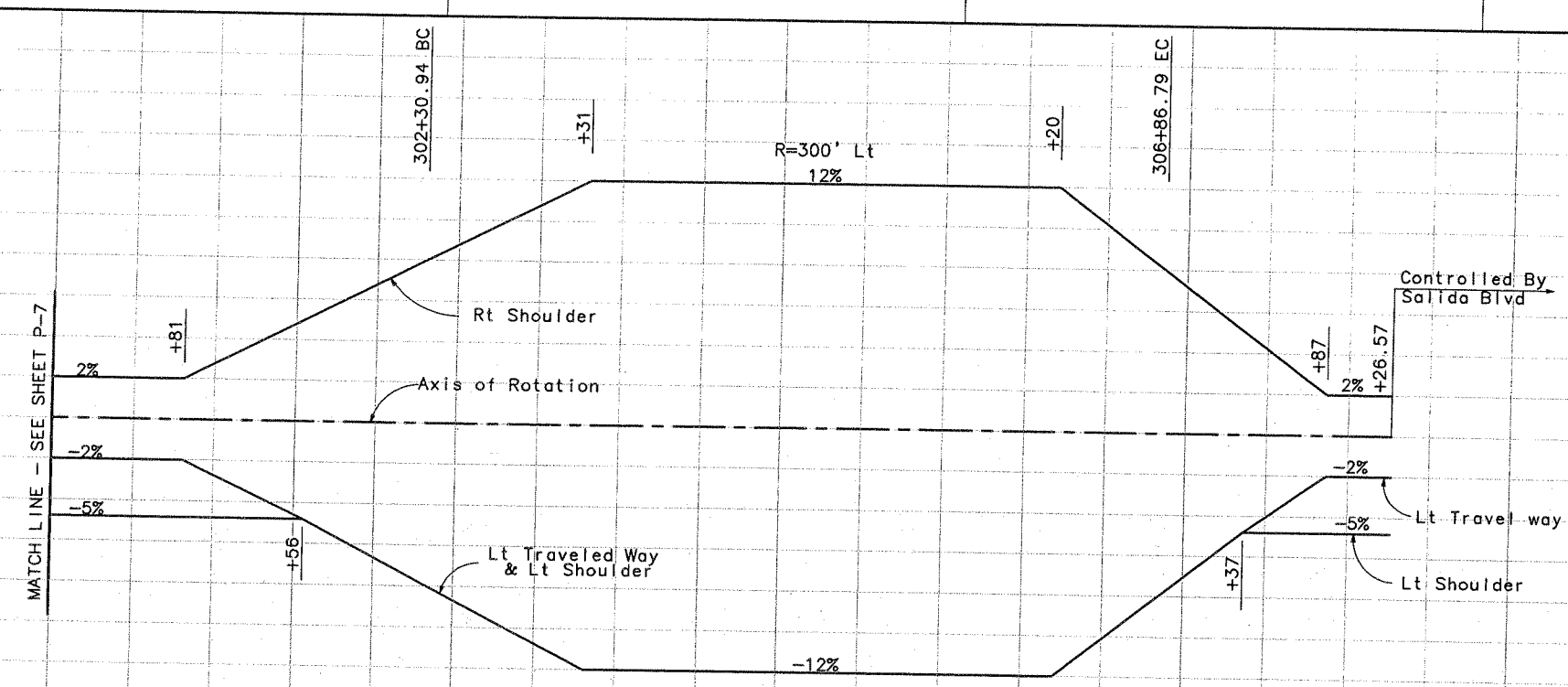
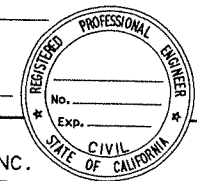
PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

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

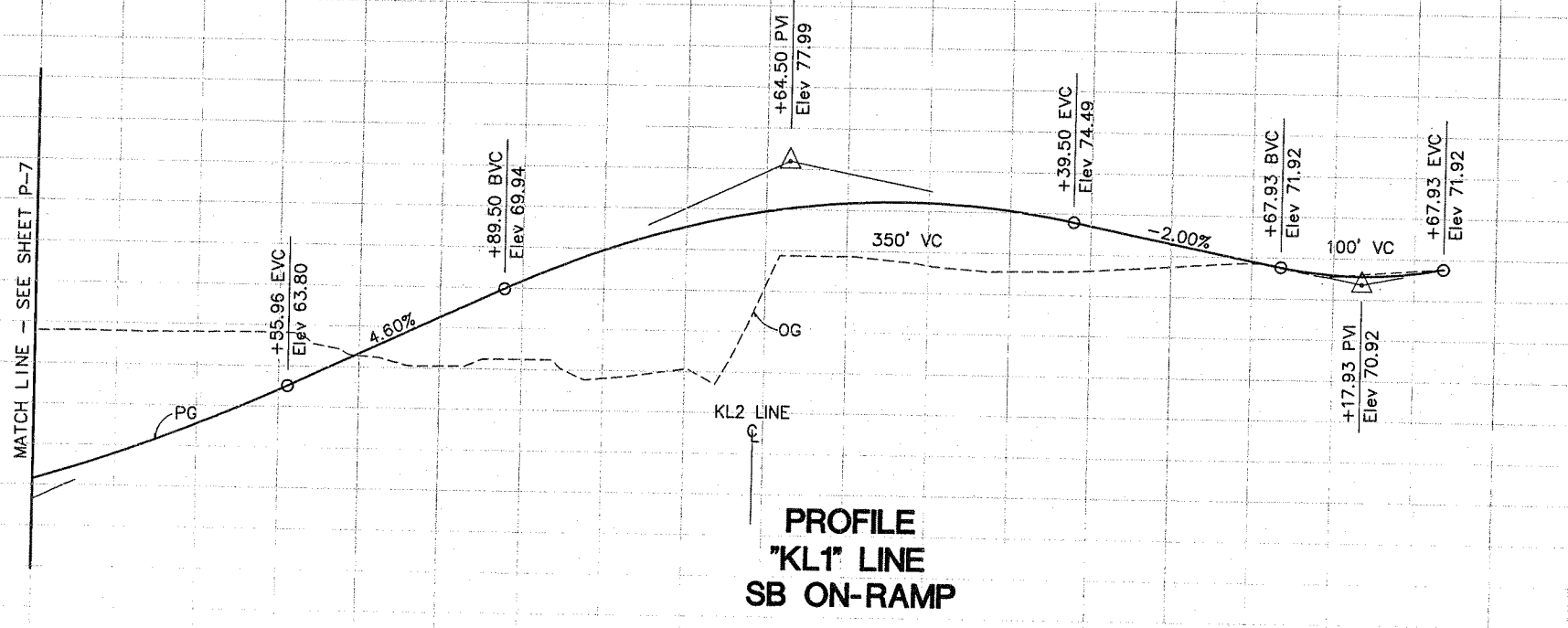
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SUPERELEVATION DIAGRAM
"KL1" LINE
SB ON-RAMP

SCALE : HORIZONTAL 1" = 50'



PROFILE
"KL1" LINE
SB ON-RAMP

SCALE : HORIZONTAL 1" = 50'

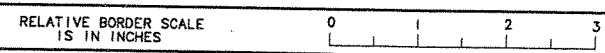
VERTICAL 1" = 5'

PROFILE AND
SUPERELEVATION DIAGRAM
P-8

REVISION	Exc	DESIGN OVERSIGHT	DATE	REVISOR	DATE	REVISOR
	Emb	DESIGN OVERSIGHT	DATE	REVISOR	DATE	REVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

Station	300	301	302	303	304	305	306	307	308	309
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USERNAME => \$USER
DGN FILE => \$REQUEST

CU EA 10-0L330K

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

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ	99	21.9/23.1		

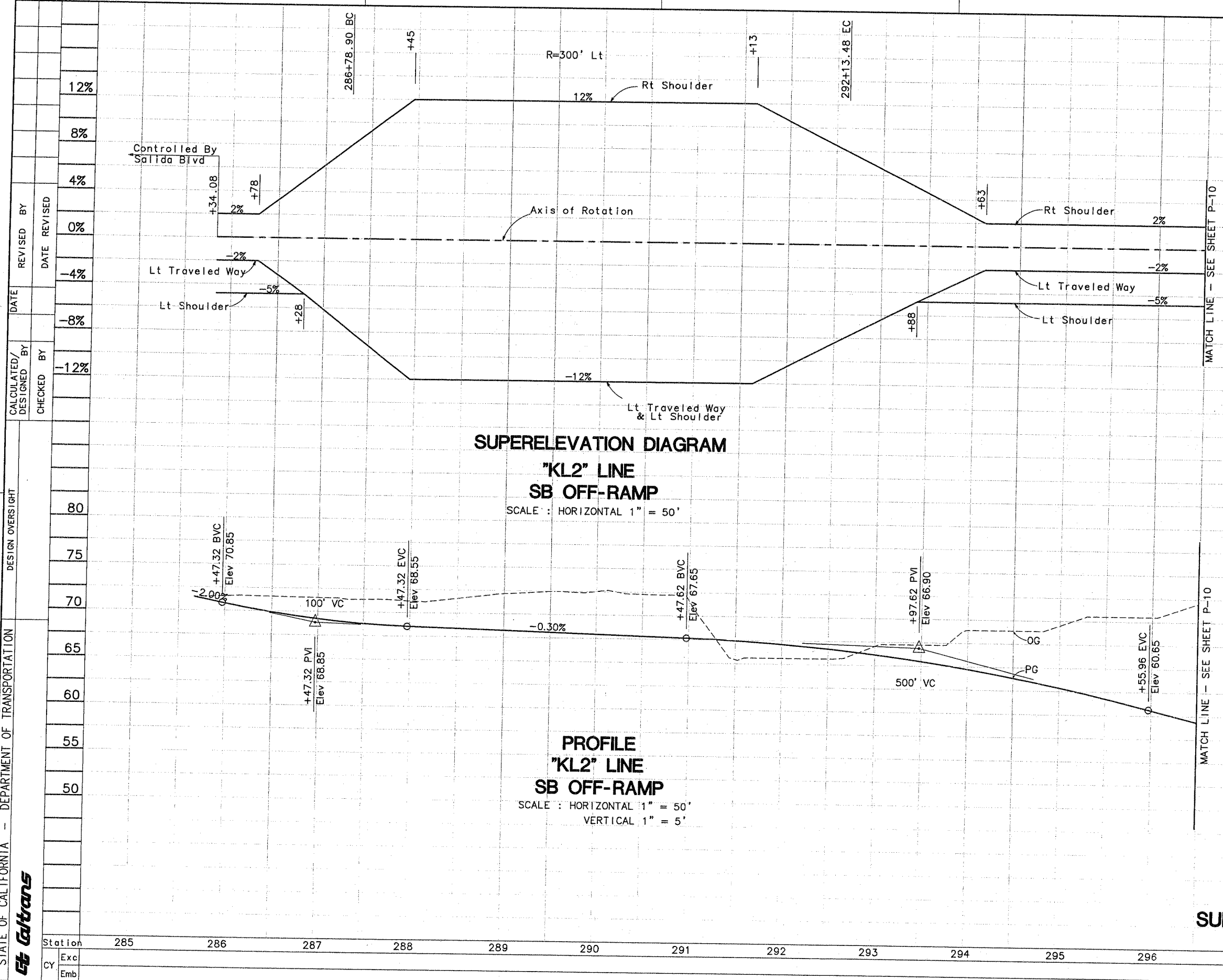
PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

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SAN JOSE, CALIFORNIA 95126

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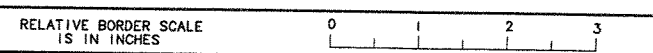
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MATCH LINE - SEE SHEET P-10

PROFILE AND SUPERELEVATION DIAGRAM
P-9

DEPARTMENT OF TRANSPORTATION
 DESIGN OVERSIGHT
 CALCULATED/DESIGNED BY
 CHECKED BY
 DATE
 REVISED BY
 DATE REVISED
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Caltrans



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

CU EA 10-0L330K

LAST REVISION
 DATE PLOTTED => \$DATE
 TIME PLOTTED => \$TIME
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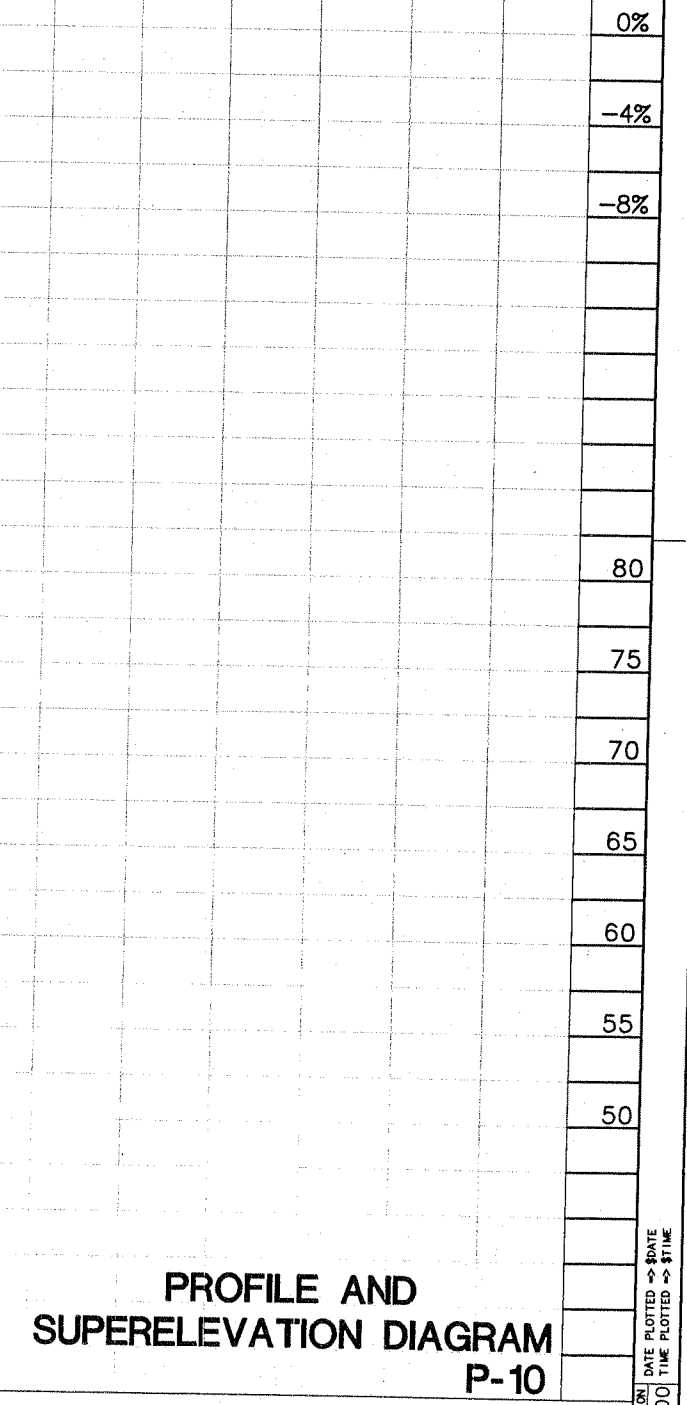
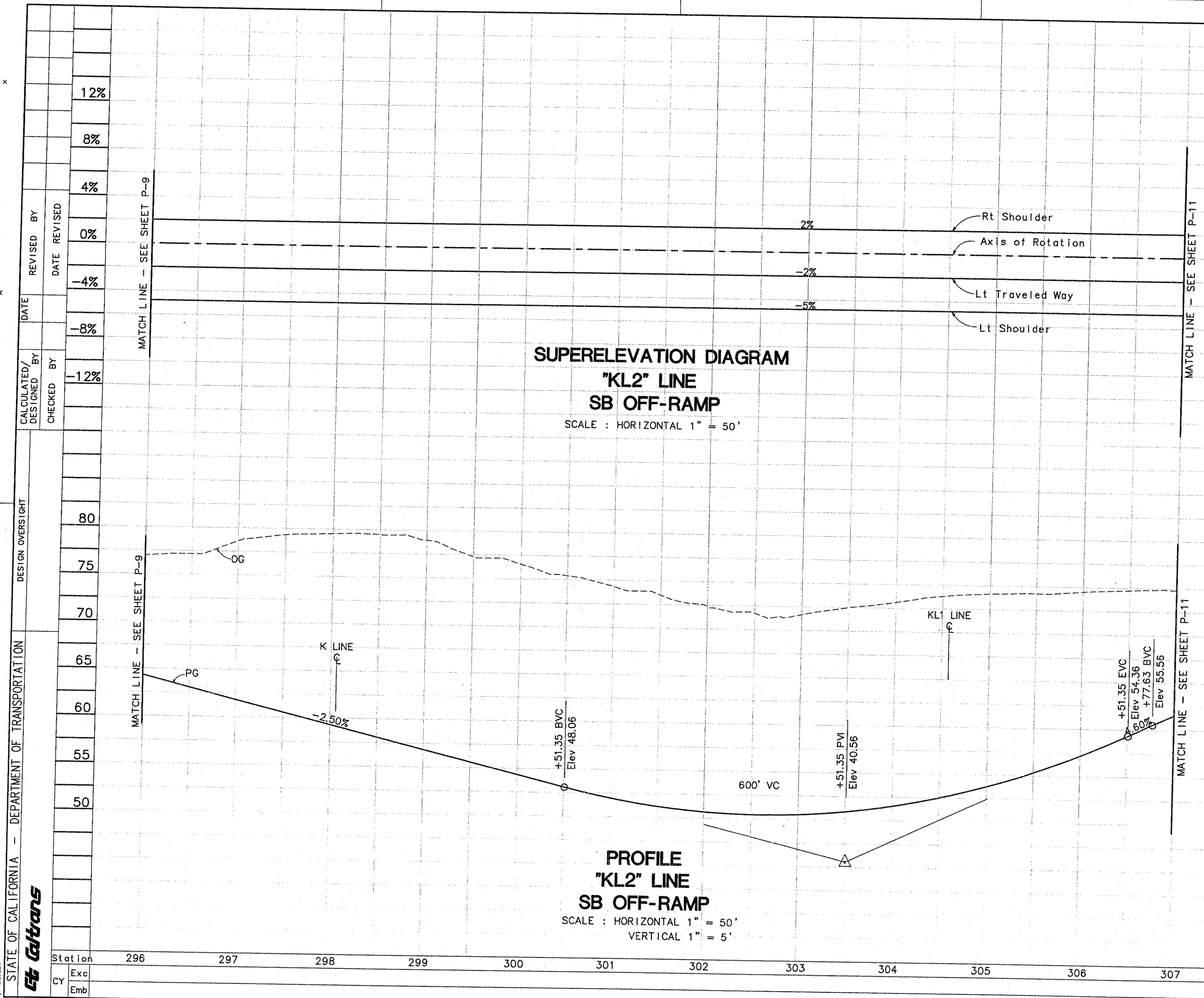
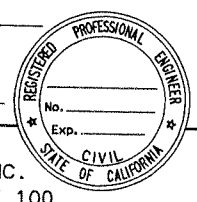
DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ	99	21.9/23.1		

PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE

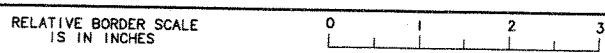
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PROFILE AND SUPERELEVATION DIAGRAM
P-10

Station	296	297	298	299	300	301	302	303	304	305	306	307
Exc												
Emb												



USERNAME → \$USER
DGN FILE → \$REQUEST

CU

EA 10-0L330K

LAST REVISION DATE PLOTTED → DATE TIME PLOTTED → TIME

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ	99	21.9/23.1		

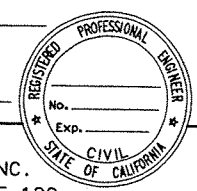
PROFESSIONAL CIVIL ENGINEER

PLANS APPROVAL DATE _____

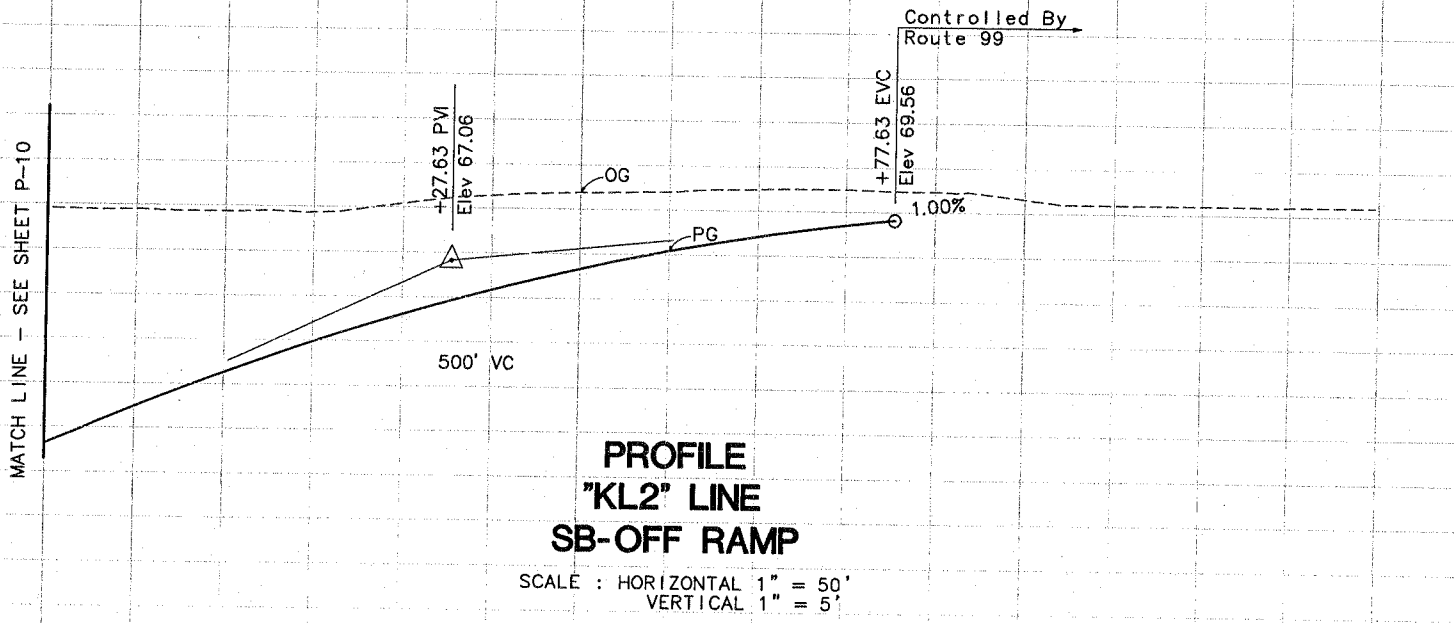
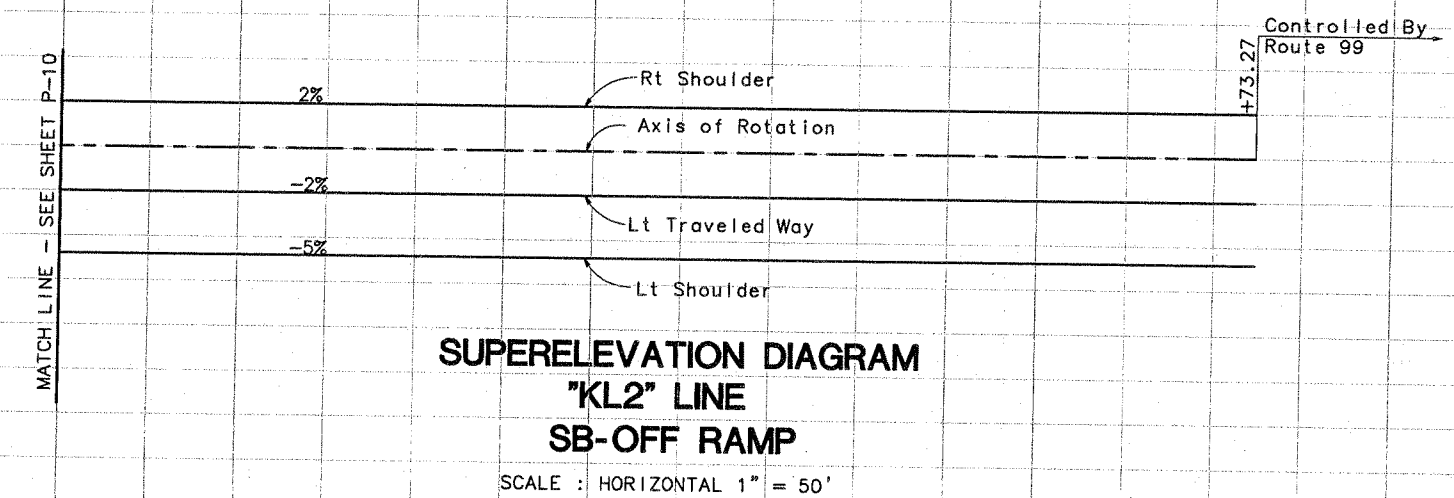
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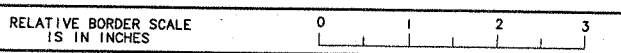


REVISION	DATE	BY	REVISION	DATE	BY
12%					
8%					
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0%					
-4%					
-8%					
-12%					



**PROFILE AND
SUPERELEVATION DIAGRAM
P-11**

Station	307	308	309	310	311	312	313	314
Exc								
Emb								



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

DATE PLOTTED => \$DATE
TIME PLOTTED => \$TIME

**ATTACHMENT D
COST ESTIMATES**

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

DIST - CO - RTE 10-STA-99
PM: 21.9/23.1
EA: 10-0L330K
Program Code: _____

Project Description: Route 99/Kiernan Avenue Interchange Project

Limits: In Stanislaus County

Proposed Improvement: Widen the Existing Compact Diamond Interchange
(Scope) Alternative 1

Alternative: Modification to the existing interchange at Route 219 (Kiernan Avenue) on Route 99

SUMMARY OF PROJECT COST ESTIMATE	
TOTAL ROADWAY ITEMS	\$29,100,000
TOTAL STRUCTURE ITEMS	\$7,000,000
SUBTOTAL CONSTRUCTION COSTS	\$36,100,000
TOTAL RIGHT OF WAY ITEMS	\$9,100,000
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$45,200,000

Reviewed by District Program Manager *Christina Abbaid*
(Signature)

Approved by Project Manager *[Signature]* Date 5/5/09
(Signature)

Phone No. 408.280.2772

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE
10-STA-99
 PM: 21.9/23.1
 EA: 10-0L330K

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	123,003	CY	\$28.00	\$3,444,084	
Imported Borrow	57,535	CY	\$35.00	\$2,013,725	
Clearing & Grubbing	Lump Sum	LS	\$200,000.00	\$200,000	
Develop Water Supply	Lump Sum	LS	\$40,000.00	\$40,000	
Project Schedule	Lump Sum	LS	\$20,000.00	\$20,000	
				<u>Subtotal Earthwork</u>	<u>\$5,717,809.00</u>
<u>Section 2 - Pavement Structural Section *</u>					
PCC Pavement (___ Depth)					
PCC Pavement (___ Depth)					
Asphalt Concrete	23,515	TONN	\$120.00	\$2,821,800	
Lean Concrete Base					
Cement-Treated Base					
Aggregate Base	18,222	CY	\$58.00	\$1,056,876	
Treated Permeable Base					
Aggregate Subbase	19,295	CY	\$30.00	\$578,850	
Pavement Reinforcing Fabric					
Edge Drains					
Pavement					
Concrete Curb & Gutter	498	CY	\$500.00	\$249,000	
Sidewalk	378	CY	\$500.00	\$189,000	
				<u>Subtotal Pavement Structural Section</u>	<u>\$4,895,526.00</u>
<u>Section 3 - Drainage</u>					
<u>Large Drainage Facilities</u>					
Storm Drains	Lump Sum	LS	\$2,500,000.00	\$2,500,000	
Construction BMP's	Lump Sum	LS	\$350,000.00	\$350,000	
Construction Site Management	Lump Sum	LS	\$450,000.00	\$450,000	
Treatment BMP's	Lump Sum	LS	\$650,000.00	\$650,000	
Sampling and Analysis	Lump Sum	LS	\$15,000.00	\$15,000	
Detention Basin					
				<u>Subtotal Drainage</u>	<u>\$3,965,000.00</u>

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE

10-STA-99
 PM: 21.9/23.1
 EA: 10-0L330K

	<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	1,120	SF	\$84.00	\$94,080	
Noise Barriers	Lump Sum	LS	\$570,000.00	\$570,000	
Barriers and Guardrails	320	LF	\$150.00	\$48,000	
Equipment/Animal Passes					
Highway Planting	Lump Sum	LS	\$300,000.00	\$300,000	
Replacement Planting					
Irrigation Modification	Lump Sum	LS	\$100,000.00	\$100,000	
Relocate Private Irrigation Facilities					
Erosion Control	Lump Sum	LS	\$800,000.00	\$800,000	
Slope Protection					
Water Pollution Control	Lump Sum	LS	\$300,000.00	\$300,000	
Hazardous Waste Mitigation Work	Lump Sum	LS	\$70,000.00	\$70,000	
Environmental Mitigation	Lump Sum	LS	\$120,000.00	\$120,000	
Resident Engineer Office Space	Lump Sum	LS	\$50,000.00	\$50,000	
					<u>Subtotal Specialty Items</u>
					<u>\$2,452,080.00</u>
<u>Section 5 - Traffic Items</u>					
Lighting and Sign Illumination	Lump Sum	LS	\$200,000.00	\$200,000	
Traffic Delineation Items	75,157	LF	\$3.00	\$225,471	
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	\$609,000.00	\$609,000	
COZEEP Contract	Lump Sum	LS	\$250,001.00	\$250,000	
					<u>Subtotal Traffic Items</u>
					<u>\$3,484,471.00</u>
					<u>TOTAL SECTIONS 1 - 5:</u>
					<u>\$20,514,886.00</u>

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE
10-STA-99
 PM: 21.9/23.1
 EA: 10-0L330K

				<u>Item Cost</u>	
<u>Section 6 - Minor Items</u>					<u>Section Cost</u>
Subtotal Sections 1 - 5	<u>\$20,514,886</u>	X (5%)		<u>\$1,025,744</u>	
				TOTAL MINOR ITEMS:	<u>\$1,025,744</u>
<u>Section 7 - Roadway Mobilization</u>					
Subtotal Sections 1 - 5	<u>\$20,514,886</u>				
Minor Items	<u>\$1,025,744</u>				
Sum	<u>\$21,540,630</u>	X (10%)		<u>\$2,154,063</u>	
				TOTAL ROADWAY MOBILIZATION	<u>\$2,154,060</u>
<u>Section 8 - Roadway Additions</u>					
Supplemental					
Subtotal Sections 1 - 5	<u>\$20,514,886</u>				
Minor Items	<u>\$1,025,744</u>				
Sum	<u>\$21,540,630</u>	X (5%)		<u>\$1,077,032</u>	
Contingencies					
Subtotal Sections 1 - 5	<u>\$20,514,886</u>				
Minor Items	<u>\$1,025,744</u>				
Sum	<u>\$21,540,630</u>	X	20% *	<u>\$4,308,126</u>	
				TOTAL ROADWAY ADDITIONS	<u>\$5,385,160</u>
				TOTAL ROADWAY ITEMS	<u>\$29,080,000</u>
				(Subtotal of Sections 1 - 8)	

Estimate Prepared By:	CHI WAI NG	(408) 280-2772	9-May-09
	(Print Name)	(Phone)	(Date)
Estimate Checked By:	Martha M Dadala	(408) 280-2772	9-May-09
	(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
EA: 10-0L330K

II. STRUCTURES ITEMS

Bridge Name Route 219/99 Separation

Structure Type CIP/PS Concrete Box Girder

Width (ft) - out to out _____

Span Lengths (ft) _____

Total Area (SQ ft) 33,048.0

Footing Type(pile/spread) Pile

Cost per Sq. ft. \$200

Including:
Mobilization: 10%
Contingency: 25%

Bridge Removal/Modification _____

Total Cost For Structure \$7,030,000

SUBTOTAL STRUCTURES ITEMS \$7,000,000
(Sum of Total cost for Structures)

Railroad Related Costs _____

SUBTOTAL RAILROAD ITEMS \$0

TOTAL STRUCTURES ITEMS: \$7,000,000
(Sum of Structures Items plus Railroad items)

COMMENTS:

Estimate Prepared By: CHI WAI NG (408)280-2772 9-May-09
(Print Name) (Phone) (Date)

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE
10-STA-99
 PM: 21.9/23.1
 EA: 10-0L330K

III. RIGHT OF WAY

	Escalated Value *
A. Acquisition, including excess lands, damages to remainder(s) and Goodwill	\$6,660,000
B. Utility Relocation (State Share)	\$1,819,000
C. Relocation Assistance	\$360,000
D. Clearance / Demolition	\$125,000
E. Title and Escrow Fees	\$80,000
TOTAL RIGHT OF WAY ITEMS	\$9,074,000
	(Escalated Value)

Anticipated Date of Right of Way Certification _____
 (Date to which Values are Escalated)

F. Construction Contract Work 30000

Brief Description of Work: _____

Right of Way Branch Cost Estimate for Work* \$0

*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: CHI WAI NG (408)-280-2772 9-May-09
(Print Name) (Phone) (Date)

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

DIST - CO - RTE 10-STA-99
PM: 21.9/23.1
EA: 10-0L330K
Program Code: _____

Project Description: SR 99/Kiernan I/c

Limits: In Stanislaus County

Proposed Improvement: Hybrid (Type L-1 and Type L-6) Interchange
(Scope) Alternative 2

Alternative: Route 99/Kiernan Avenue Interchange Project

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	\$49,300,000
TOTAL STRUCTURE ITEMS	\$12,300,000
SUBTOTAL CONSTRUCTION COSTS	\$61,600,000
TOTAL RIGHT OF WAY ITEMS	\$10,600,000
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$72,200,000

Reviewed by District Program Manager

Christine Adcock
(Signature)

Approved by
Project Manager

[Signature]
(Signature)

Date 5/5/09

Phone No. 408.280.2772

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE
10-STA-99
 PM: 21.9/23.1
 EA: 10-0L330K

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	495,000	CY	\$28.00	\$13,860,000	
Imported Borrow	0	CY	\$35.00	\$0	
Clearing & Grubbing	Lump Sum	LS	\$200,000.00	\$200,000	
Develop Water Supply	Lump Sum	LS	\$40,000.00	\$40,000	
Project Schedule	Lump Sum	LS	\$20,000.00	\$20,000	
				<u>Subtotal Earthwork</u>	<u>\$14,120,000.00</u>
 <u>Section 2 - Pavement Structural Section *</u>					
PCC Pavement (___ Depth)					
PCC Pavement (___ Depth)					
Asphalt Concrete	37,145	TONN	\$120.00	\$4,457,400	
Lean Concrete Base					
Cement-Treated Base					
Aggregate Base	28,825	CY	\$58.00	\$1,671,850	
Treated Permeable Base					
Aggregate Subbase	27,780	CY	\$30.00	\$833,400	
Pavement Reinforcing Fabric					
Edge Drains					
Pavement					
Concrete Curb & Gutter	810	CY	\$500.00	\$405,000	
Sidewalk	920	CY	\$500.00	\$460,000	
				<u>Subtotal Pavement Structural Section</u>	<u>\$7,827,650.00</u>
 <u>Section 3 - Drainage</u>					
<u>Large Drainage Facilities</u>					
Storm Drains	Lump Sum	LS	\$2,500,000.00	\$2,500,000	
Construction BMP's	Lump Sum	LS	\$350,000.00	\$350,000	
Construction Site Management	Lump Sum	LS	\$450,000.00	\$450,000	
Treatment BMP's	Lump Sum	LS	\$650,000.00	\$650,000	
Sampling and Analysis	Lump Sum	LS	\$15,000.00	\$15,000	
Detention Basin					
				<u>Subtotal Drainage</u>	<u>\$3,965,000.00</u>

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE

10-STA-99
 PM: 21.9/23.1
 EA: 10-0L330K

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Section 4 - Specialty Items					
Retaining Walls	33,550	SF	\$84.00	\$2,818,200	
Noise Barriers	Lump Sum	LS	\$570,000.00	\$570,000	
Barriers and Guardrails	2,770	LF	\$150.00	\$415,500	
Equipment/Animal Passes					
Highway Planting	Lump Sum	LS	\$300,000.00	\$300,000	
Replacement Planting					
Irrigation Modification	Lump Sum	LS	\$100,000.00	\$100,000	
Relocate Private Irrigation Facilities					
Erosion Control	Lump Sum	LS	\$800,000.00	\$800,000	
Slope Protection					
Water Pollution Control	Lump Sum	LS	\$300,000.00	\$300,000	
Hazardous Waste Mitigation Work	Lump Sum	LS	\$70,000.00	\$70,000	
Environmental Mitigation	Lump Sum	LS	\$120,000.00	\$120,000	
Resident Engineer Office Space	Lump Sum	LS	\$50,000.00	\$50,000	
					<u>Subtotal Specialty Items</u> \$5,543,700.00
Section 5 - Traffic Items					
Lighting and Sign Illumination	Lump Sum	LS	\$200,000.00	\$200,000	
Traffic Delineation Items	97,450	LF	\$3.00	\$292,350	
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	\$609,000.00	\$609,000	
COZEEP Contract	Lump Sum	LS	\$250,000.00	\$250,000	
					<u>Subtotal Traffic Items</u> \$3,301,350.00
					<u>TOTAL SECTIONS 1 - 5:</u> \$34,757,700.00

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE
10-STA-99
 PM: 21.9/23.1
 EA: 10-0L330K

			<u>Item Cost</u>	
<u>Section 6 - Minor Items</u>				<u>Section Cost</u>
Subtotal Sections 1 - 5	<u>\$34,757,700</u>	X (5%)	<u>\$1,737,885</u>	
				TOTAL MINOR ITEMS: <u>\$1,737,885</u>
<u>Section 7 - Roadway Mobilization</u>				
Subtotal Sections 1 - 5	<u>\$34,757,700</u>			
Minor Items	<u>\$1,737,885</u>			
Sum	<u>\$36,495,585</u>	X (10%)	<u>\$3,649,559</u>	
				TOTAL ROADWAY MOBILIZATION <u>\$3,649,560</u>
<u>Section 8 - Roadway Additions</u>				
Supplemental				
Subtotal Sections 1 - 5	<u>\$34,757,700</u>			
Minor Items	<u>\$1,737,885</u>			
Sum	<u>\$36,495,585</u>	X (5%)	<u>\$1,824,779</u>	
Contingencies				
Subtotal Sections 1 - 5	<u>\$34,757,700</u>			
Minor Items	<u>\$1,737,885</u>			
Sum	<u>\$36,495,585</u>	X 20% *	<u>\$7,299,117</u>	
				TOTAL ROADWAY ADDITIONS <u>\$9,123,900</u>
				TOTAL ROADWAY ITEMS <u>\$49,270,000</u>
				(Subtotal of Sections 1 - 8)

Estimate Prepared By:	CHI WAI NG	(408) 280-2772	9-May-09
	(Print Name)	(Phone)	(Date)
Estimate Checked By:	Martha M Dadala	(408) 280-2772	9-May-09
	(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
 EA: 10-0L330K

II. STRUCTURES ITEMS

	SB Ramps	Route 219/99 Separation	
Bridge Name	_____	_____	_____
Structure Type	_____	CIP/PS Concrete Box Girder	_____
Width (ft) - out to out	_____	_____	_____
Span Lengths (ft)	_____	_____	_____
Total Area (SQ ft)	2,654.0	53,622.0	_____
Footing Type(pile/spread)	Pile	Pile	_____
Cost per Sq. ft.	\$578	\$204	_____
Including:			
Mobilization: 10%			
Contingency: 25%			
Bridge Removal/Modification	_____	_____	_____
Total Cost For Structure	\$1,533,000	\$10,812,000	_____
			SUBTOTAL STRUCTURES ITEMS
			(Sum of Total cost for Structures)
			\$12,300,000
Railroad Related Costs	_____	_____	_____
			SUBTOTAL RAILROAD ITEMS
			\$0
			TOTAL STRUCTURES ITEMS:
			(Sum of Structures Items plus Railroad items)
			\$12,300,000

COMMENTS:

Estimate Prepared By: CHI WAI NG	(408)280-2772	9-May-09
(Print Name)	(Phone)	(Date)

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE
10-STA-99
 PM: 21.9/23.1
 EA: 10-0L330K

III. RIGHT OF WAY

	Escalated Value *
A. Acquisition, including excess lands, damages to remainder(s) and Goodwill	\$7,965,000
B. Utility Relocation (State Share)	\$1,819,100
C. Relocation Assistance	\$500,000
D. Clearance / Demolition	\$225,000
E. Title and Escrow Fees	\$92,500
TOTAL RIGHT OF WAY ITEMS	\$10,631,600
	(Escalated Value)

Anticipated Date of Right of Way Certification _____
 (Date to which Values are Escalated)

F. Construction Contract Work

\$30,000

Brief Description of Work: _____

Right of Way Branch Cost Estimate for Work* \$0

*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

0

COMMENTS:

Estimate prepared by: CHI WAI NG (408)-280-2772 9-May-09
 (Print Name) (Phone) (Date)

ATTACHMENT E
RIGHT OF WAY DATA SHEETS (RWDS)



January 22, 2009

To: Michael Rodrigues
Assistant Central Region Chief, Right of Way
10-STA-99-PM R21.96/R23.12
10-STA-219-PM 0.0/0.3
EA 10-0L330K

From: Keith Meyer
Rajappan & Meyer Consulting Engineers
Route 99/Kiernan Avenue (Route 219)
Interchange Reconstruction PSR
Salida, Stanislaus County

Subject: Current Estimate of Right of Way Costs for Project Study Report
Kiernan Avenue/Route 99 Interchange Reconstruction Alternatives 1 and 2

Associated Right of Way Services, Inc. (ARWS) has completed an estimate of the right of way costs for two alternatives for the above referenced project based on maps prepared by our firm and the following assumptions and limiting conditions.

1. Project maps and required acquisition areas were developed by Rajappan & Meyer Consulting Engineers, based on preliminary design requirements for each alternative. The basis of the design and right of way information includes aerial topographic mapping and right of way record maps. These maps are preliminary and are adequately accurate only to prepare the PSR Right of Way estimate. The right of way area calculations are assumed to reflect the needs for the project only west of Sisk Road. Transition to existing lanes at the time of construction will be made for the Sisk Road legs north and south of Kiernan and the Kiernan leg east of Sisk Road. Property boundaries were not staked by survey. Any changes to proposed improvements, parcel delineations or areas may dramatically impact the estimated right of way costs.
2. The right of way estimate is not an appraisal. The right of way estimate was prepared solely to assist the Project team in its decision-making related to costs associated with acquiring property rights for the proposed project alternatives. The estimator relied only on the areas and parcel delineations as provided on the project maps.
3. 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.
4. Verification of the comparables 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.
5. Project maps and required acquisition areas were provided by Rajappan & Meyer Consulting Engineers, based on preliminary design requirements for each alternative. These maps are preliminary and are adequately accurate to prepare the PSR Right of Way estimate. The right of way area calculations are assumed to reflect the needs for the project only west of Sisk Road. Property boundaries were not staked by survey. The estimator relied on the areas and parcel delineations as provided on the project maps. Any changes to proposed improvements, parcel delineations or areas may dramatically impact the estimated right of way costs.

CIVIL, TRAFFIC, STRUCTURAL AND TRANSIT ENGINEERING

RAJAPPAN & MEYER CONSULTING ENGINEERS, INC.
1038 LEIGH AVENUE, SUITE 100, SAN JOSE, CA 95126
PH:(408) 280-2772 FX:(408) 904-7215 KEITH@RMENGINEERS.COM

6. 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.
7. Utility information was provided by Alliance Electrical Consultants and is believed to be reliable. However, no warranty is given for its accuracy as it is preliminary.
8. 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.
9. No allowance has been made for hazardous or toxic substances in the structure or soil comprising the subject ownerships.
10. The right of way is anticipated to be acquired by Stanislaus County.
11. Right of Way Lead time will require a minimum of 12 months after we prepare final right of way requirements, necessary environmental clearance has been obtained, and freeway agreements have been approved, if needed. Shorter lead times will require either more right of way resources or an increased number of condemnation suits to be filed.

Attachments:

Alternative 1

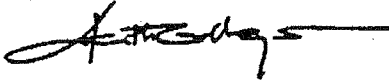
- Right of Way Data Sheet – All Pages (required when interest in real property being acquired)
- Utility Information Sheet

Alternative 2

- Right of Way Data Sheet – All Pages (required when interest in real property being acquired)
- Utility Information Sheet

Sincerely,

RAJAPPAN & MEYER CONSULTING ENGINEERS, INC.



Keith G. Meyer, P.E.
Vice President

CIVIL, TRAFFIC, STRUCTURAL AND TRANSIT ENGINEERING

RAJAPPAN & MEYER CONSULTING ENGINEERS, INC.
1038 LEIGH AVENUE, SUITE 100, SAN JOSE, CA 95126
PH:(408) 280-7772 FX:(408) 904-7215 KEITH@RMENGINEERS.COM

RIGHT OF WAY DATA SHEET (Cont.)
(Form #)

EXHIBIT
4-EX-1 (REV 3/2004)
Page 1 of 4

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

Date: March 9, 2009

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

EA: 10-0L330K

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 2009	Escalation Rate	Projected Year 2011
A. Total Acquisition Cost Acquisition, including Excess Lands, Damages, and Goodwill.	\$ 6,435,000	5.0 %	\$ 7,094,600
Grantors' Appraisal Cost	\$ 70,000		\$ 70,000
B. Utility Relocation (State Share)	\$ 1,819,000	5.0 %	\$ 2,005,500
C. Relocation Assistance	\$ 360,000	5.0 %	\$ 396,900
D. Clearance/Demolition	\$ 125,000	5.0 %	\$ 137,800
E. Title and Escrow	\$ 35,000	5.0 %	\$ 38,600
F. Total Estimated Cost	\$ 8,844,000		\$ 9,743,400
G. Construction Contract Work	\$ 30,000		

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

2. Current Date of Right of Way Certification June 2011

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

Type	Dual/Appr	Utilities	RR Involvements
X		U4-1 3	None X
A		-2	C&M Agrmt
B 5	1	-3 3	Svc Contract
C 9	3	-4	Design
D		U5-7	Const.
E XXXX		-8	Lic/RE/Clauses
F XXXX		-9 4	
Total 14			Misc. R/W Work
			RAP Displ 9
			Clear/Demo 5
			Const Permits 0
			Condemnation 0
			Excess N/A

Areas: R/W 5.53 Acres No. Excess Parcels 0
Entered PMCS Screens / / by

RIGHT OF WAY DATA SHEET (Cont.)
(Form #)

EXHIBIT
4-EX-1 (REV 3/2004)
Page 2 of 4

Entered AGRE Screen (Railroad data only) / / by

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.

Land uses in the project site are of commercial, warehousing and light industrial uses, with retail and railroad west of the interchange area.

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 #)

EXHIBIT

4-EX-1 (REV 3/2004)

Page 3 of 4

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.)

Studies for Aerially Deposited Lead (ADL) and Naturally Occurring Asbestos (NOA) will be conducted prior to construction activities. Several actions may be required to resolve potential hazardous waste issues including removal of thermoplastic striping, testing of properties to be acquired, removal of electrical transformers, and testing for asbestos in buildings to be demolished. Studies for aerially deposited lead would be conducted prior to construction activities. If Naturally Occurring Asbestos is suspected, testing would also be conducted. Measures would be identified to protect the health and safety of construction workers. Costs are estimated at approximately \$40,000-\$50,000. Costs for removal of the transformers should be borne by the electrical utility.

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

No. of single family 2 No. of business/nonprofit 7

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

DRIS will be 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 4

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.

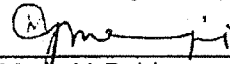
Evaluation Prepared By:

Right of Way:

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


Date: MAR. 9, 2009

Railroad:

Name: 
Martha M. Dadala

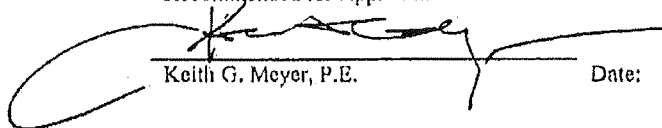
Date: 3/9/09

Utilities:

Name: 
John Beebe

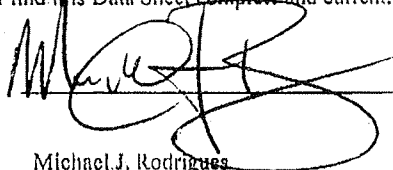
Date: 3/9/09

Recommended for Approval:


Keith G. Meyer, P.E.

Date: 3/9/09

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.


Michael J. Rodrigues
Assistant Central Region Chief, Right of Way

Date: 3-12-09

1. Name of utility companies involved in project: AT&T, PG&E, Modesto Irrigation District (MID), and The City of Modesto.
2. Types of facilities and agreements required: AT&T has underground facilities on Kiernan Ave. (Broadway Ave., SR-219). PG&E has a distribution gas pipeline on Kiernan Ave. (Broadway Ave.SR-219). MID have aerial distribution facilities on Kiernan Ave. (Broadway Ave. SR-219). The City of Modesto has a 12" water main on Kiernan Ave. (Broadway Ave.SR-219). The PG&E gas pipe, City of Modesto water pipe, and AT&T conduit Structure cross highway 99 in the cell of the Broadway Bridge via what appears to be an encroachment permit.

The agreements required on this project are utility agreement and a utility permit.

3. Is any facility a longitudinal encroachment in existing or proposed access controlled right of way? Yes

PG&E has a 4" steel gas main on SR 219 that passes through the cells of the overcrossing and extends 1,180' to Sisk Rd. AT&T has 12-4" conduits that pass through the cells of the overcrossing and terminate in a manhole 1420' east of the bridge. From that point AT&T has 390' of 8-4" conduits that terminate in a manhole on Sisk Rd. The City of Modesto pipeline on SR 219 that passes through the cells of the overcrossing and extends 1,180' to Sisk Rd. MID has 12 poles and associated conductors and equipment on the north side of SR219 from the ramps to Kiernan Ct.

Disposition of longitudinal encroachment(s):

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

Longitudinal encroachments are in SR 219, which is a conventional highway. Per recommendation of District 10, no exception to policy is required.

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.

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

Prepared By:

John Beebe
Right of Way Utility Estimator

1/21/09
Date

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ESTIMATE WORKSHEET
 (Form #)

DISTRICT COUNTY ROUTE
 10 STA 99
 ALTERNATIVE 1

P.M./K.P. PM 21.9/23.1
 EA 10-01330K

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.	PAGE	
												(3)	(4)
C	136-007-016	21.9/23.1	1,660,000	160,000	25,000	4	1			2,500	JOHN PAOLUCCIO CONSULTING EN	24,829	1
C	136-007-017		685,000	40,000	25,000	1	1			2,500	THE DEWEY GROUP	13,068	0
C	135-045-055		315,000	40,000	0	1	0			2,500	SALIBA FIRE PROTECTION DIST	8,023	0
C	135-041-031		30,000	0	0	0	0			2,500	JACK H. COKER	2,292	0
B	135-041-033		1,205,000	0	0	0	0			2,500	CRAIG G. COKER	425	0
B	136-019-002		485,000	0	0	0	0			2,500	RAYLEN GRITTON	43,966	0
B	135-045-038		345,000	40,000	25,000	1	1			2,500	DHALIWAL, AMARJIT J. & R.K.	23,312	0
C	135-053-004		15,000	0	0	0	0			2,500	HAPPY BEES/KING OF CENT. VALL. II	1,154	0
C	135-042-020		310,000	0	0	0	0			2,500	CALIF ALMOND GROWERS EXC.	34,187	0
C	135-041-029		785,000	0	0	0	0			2,500	DANNY L. GRAMEL	56,045	0
C	135-045-037		10,000	0	0	0	0			2,500	RICHARD A. & BRENDA K. LOWRY	731	0
C	135-045-029		210,000	0	0	0	0			2,500	RICHARD A. & BRENDA K. LOWRY	14,360	0
B	136-020-011		200,000	40,000	25,000	1	1			2,500	MICHAEL & RENEE SILVA	7,907	0
B	136-020-010		200,000	40,000	25,000	1	1			2,500	FREDERICK B. BUTTERWORTH	10,079	0
			TOTAL	6,435,000	175,000	9	5			35,000		240,913	0
			GRAND TOTAL	6,955,000								240,913	0

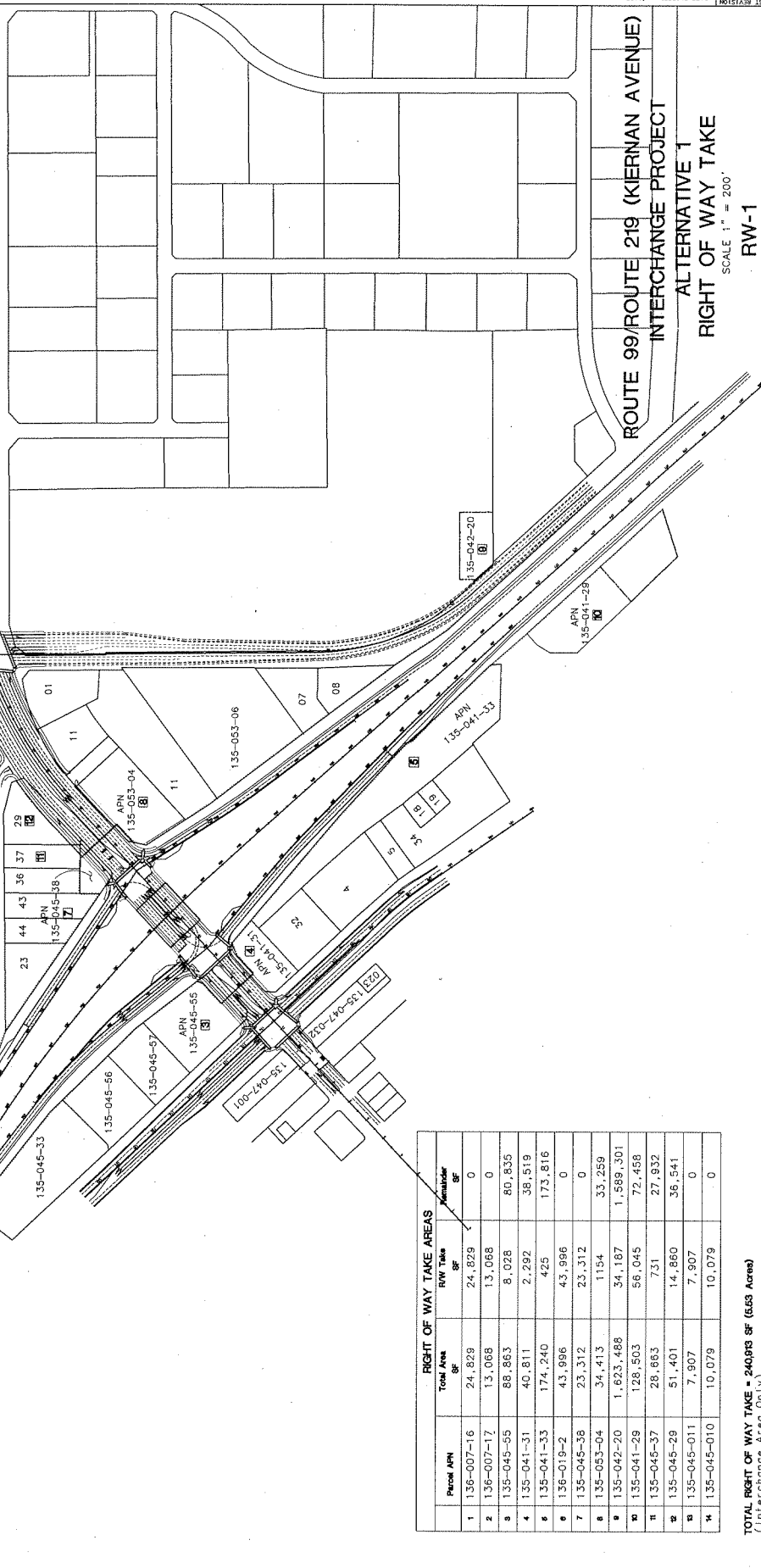
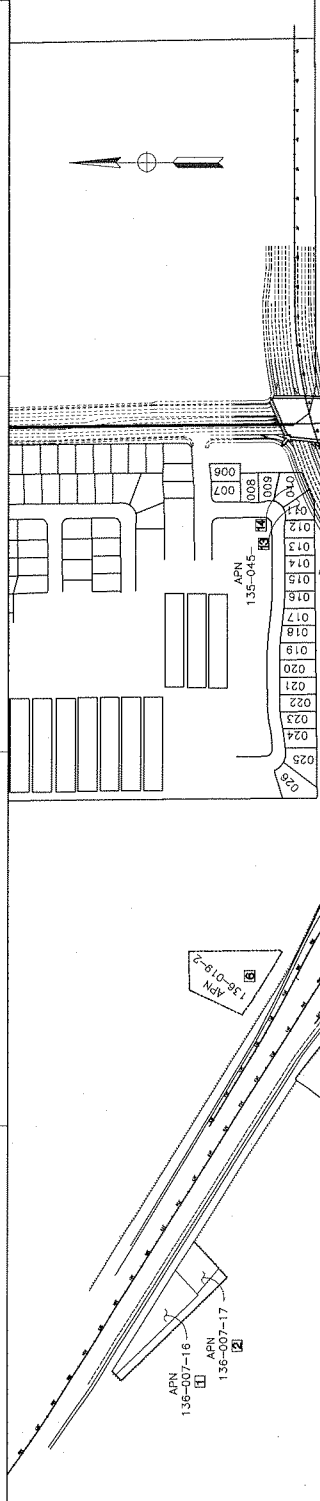
DATE 20-JUN-09

PROJECT PERMITTER	ESTIMATED COST	DATE TO EXPEND
(14)	(15)	(17)
TOTAL	6,435,000	
GRAND TOTAL	6,955,000	
FROM ALL PAGES		

*Parcel 1 cost includes billboard.

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

DIST COUNTY ROUTE 10 STA 99
 SHEET TOTAL PROJECT SHEETS 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 refer to the California State Board of Professional Engineers



RIGHT OF WAY TAKE AREAS			
Parcel APN	Total Area SF	ROW Take SF	Remainder SF
1 136-007-16	24,829	24,829	0
2 136-007-17	13,068	13,068	0
3 135-045-55	88,863	8,028	80,835
4 135-041-31	40,811	2,292	38,519
5 135-041-33	174,240	425	173,815
6 136-019-2	43,986	43,986	0
7 135-045-38	23,312	23,312	0
8 135-053-04	34,413	1194	33,259
9 135-042-20	1,623,468	34,187	1,589,301
10 135-041-29	128,503	56,045	72,458
11 135-045-37	28,863	731	27,932
12 135-045-29	51,401	14,860	36,541
13 135-045-011	7,907	7,907	0
14 135-045-010	10,079	10,079	0

TOTAL RIGHT OF WAY TAKE = 240,978 SF (5.63 Acres)
 (Interchange Area Only)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN OVERSIGHT
 CHECKED BY
 DESIGNED BY
 DATE REVISID BY
 DATE REVISID BY



LAST REVISION DATE PLOTTED DATE 00-00-00
 RELATIVE RASTER SCALE 0 1 2 3
 EASTING TO RASTER 00000000
 NORTHING TO RASTER 00000000
 EA 10-0L330K
 CU



January 22, 2009

To: Michael Rodrigues
Assistant Central Region Chief, Right of Way
10-STA-99-PM R21.96/R23.12
10-STA-219-PM 0.0/0.3
EA 10-0L330K

From: Keith Meyer
Rajappan & Meyer Consulting Engineers
Route 99/Kiernan Avenue (Route 219)
Interchange Reconstruction PSR
Salida, Stanislaus County

Subject: Current Estimate of Right of Way Costs for Project Study Report
Kiernan Avenue/Route 99 Interchange Reconstruction Alternatives 1 and 2

Associated Right of Way Services, Inc. (ARWS) has completed an estimate of the right of way costs for two alternatives for the above referenced project based on maps prepared by our firm and the following assumptions and limiting conditions.

1. Project maps and required acquisition areas were developed by Rajappan & Meyer Consulting Engineers, based on preliminary design requirements for each alternative. The basis of the design and right of way information includes aerial topographic mapping and right of way record maps. These maps are preliminary and are adequately accurate only to prepare the PSR Right of Way estimate. The right of way area calculations are assumed to reflect the needs for the project only west of Sisk Road. Transition to existing lanes at the time of construction will be made for the Sisk Road legs north and south of Kiernan and the Kiernan leg east of Sisk Road. Property boundaries were not staked by survey. Any changes to proposed improvements, parcel delineations or areas may dramatically impact the estimated right of way costs.
2. The right of way estimate is not an appraisal. The right of way estimate was prepared solely to assist the Project team in its decision-making related to costs associated with acquiring property rights for the proposed project alternatives. The estimator relied only on the areas and parcel delineations as provided on the project maps.
3. 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.
4. Verification of the comparables 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.
5. Project maps and required acquisition areas were provided by Rajappan & Meyer Consulting Engineers, based on preliminary design requirements for each alternative. These maps are preliminary and are adequately accurate to prepare the PSR Right of Way estimate. The right of way area calculations are assumed to reflect the needs for the project only west of Sisk Road. Property boundaries were not staked by survey. The estimator relied on the areas and parcel delineations as provided on the project maps. Any changes to proposed improvements, parcel delineations or areas may dramatically impact the estimated right of way costs.

CIVIL, TRAFFIC, STRUCTURAL AND TRANSIT ENGINEERING

RAJAPPAN & MEYER CONSULTING ENGINEERS, INC.
1038 LEIGH AVENUE, SUITE 100, SAN JOSE, CA 95126
PH:(408) 280-2772 FX:(408) 904-7215 KEITH@RAIENGINEERS.COM

6. 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.
7. Utility information was provided by Alliance Electrical Consultants and is believed to be reliable. However, no warranty is given for its accuracy as it is preliminary.
8. 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.
9. No allowance has been made for hazardous or toxic substances in the structure or soil comprising the subject ownerships.
10. The right of way is anticipated to be acquired by Stanislaus County.
11. Right of Way Lead time will require a minimum of 12 months after we prepare final right of way requirements, necessary environmental clearance has been obtained, and freeway agreements have been approved, if needed. Shorter lead times will require either more right of way resources or an increased number of condemnation suits to be filed.

Attachments:

Alternative 1

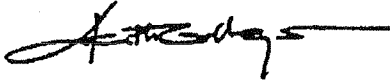
- Right of Way Data Sheet – All Pages (required when interest in real property being acquired)
- Utility Information Sheet

Alternative 2

- Right of Way Data Sheet – All Pages (required when interest in real property being acquired)
- Utility Information Sheet

Sincerely,

RAJAPPAN & MEYER CONSULTING ENGINEERS, INC.



Keith G. Meyer, P.E.
Vice President

CIVIL, TRAFFIC, STRUCTURAL AND TRANSIT ENGINEERING

RAJAPPAN & MEYER CONSULTING ENGINEERS, INC.
1038 LEIGH AVENUE, SUITE 100, SAN JOSE, CA 95126
PH: (408) 280-2772 FX: (408) 904-7215 KEITH@RMENGINEERS.COM

RIGHT OF WAY DATA SHEET (Cont.)
(Form #)

EXHIBIT
4-EX-1 (REV 3/2004)
Page 1 of 4

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

Date: March 9, 2009

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

EA: 10-0L330K

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

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

Alternate No. 2

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 2009	Escalation Rate	Projected Year 2011
A. Total Acquisition Cost Acquisition, including Excess Lands, Damages, and Goodwill.	\$ 7,535,000	5.0 %	\$ 8,307,300
Grantors' Appraisal Cost	\$ 75,000		\$ 75,000
B. Utility Relocation (State Share)	\$ 1,819,100	5.0 %	\$ 2,005,600
C. Relocation Assistance	\$ 500,000	5.0 %	\$ 551,200
D. Clearance/Demolition	\$ 225,000	5.0 %	\$ 248,000
E. Title and Escrow	\$ 37,500	5.0 %	\$ 41,300
F. Total Estimated Cost	\$ 10,191,600		\$ 11,228,400
G. Construction Contract Work	\$ 30,000		

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

2. Current Date of Right of Way Certification June 2011

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

Type	Dual/Appr	Utilities	RR Involvements
X		U4-1 3	None X
A		-2	C&M Agrmt
B 6	1	-3 3	Svc Contract
C 9	4	-4	Design
D		U5-7	Const.
E XXXX		-8	Lic/RE/Clauses
F XXXX		-9 4	

Total 15

Misc. R/W Work	
RAP Displ	10
Clear/Demo	7
Const Permits	0
Condemnation	0
Excess	N/A

Areas: R/W 11.7 Acres No. Excess Parcels 0
Entered PMCS Screens / / by

RIGHT OF WAY DATA SHEET (Cont.)
(Form #)

EXHIBIT
4-EX-1 (REV 3/2004)
Page 2 of 4

Entered AGRE Screen (Railroad data only) ___/___/___ by _____

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.

Land uses in the project site are of commercial, residential, warehousing and light industrial uses, with retail and railroad west of the interchange area.

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 #)

EXHIBIT
4-EX-1 (REV 3/2004)
Page 3 of 4

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.)

Studies for Aerially Deposited Lead (ADL) and Naturally Occurring Asbestos (NOA) will be conducted prior to construction activities. Several actions may be required to resolve potential hazardous waste issues including removal of thermoplastic striping, testing of properties to be acquired, removal of electrical transformers, and testing for asbestos in buildings to be demolished. Studies for aerially deposited lead would be conducted prior to construction activities. If Naturally Occurring Asbestos is suspected, testing would also be conducted. Measures would be identified to protect the health and safety of construction workers. Costs are estimated at approximately \$40,000-\$50,000. Costs for removal of the transformers should be borne by the electrical utility.

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

No. of single family	<u>3</u>	No. of business/nonprofit	<u>7</u>
No. of multi-family	<u>0</u>	No. of farms	<u>0</u>

Based on Draft/Final Relocation Impact Statement/Study dated _____, it is anticipated that sufficient replacement housing (will/will not) be available without Last Resort Housing.

DRIS will be 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 4

- 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.

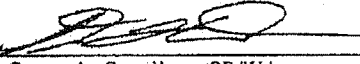
- 15. Is it anticipated that Caltrans staff will perform all Right of Way work? Yes No (If "No," discuss.)

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

Evaluation Prepared By:

Right of Way:

Name



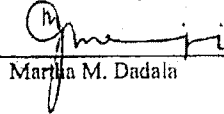
Steven L. Castellano, SR/WA
Right of Way Consultant
Associated Right of Way Services, Inc.

Date:

Mar. 9, 2009

Railroad:

Name



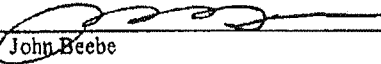
Martha M. Dadala

Date:

3/9/09

Utilities:

Name

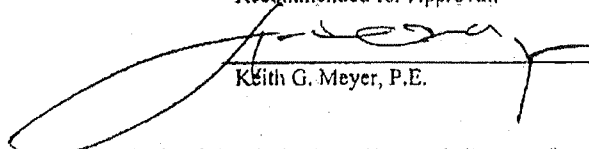


John Beebe

Date:

3/09/09

Recommended for Approval:

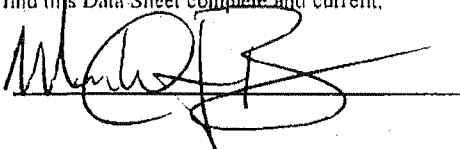


Keith G. Meyer, P.E.

Date:

3/9/09

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.



Michael J. Rodrigues
Assistant Central Region Chief, Right of Way

Date 3-12-09

1. Name of utility companies involved in project: AT&T, PG&E, Modesto Irrigation District (MID), and The City of Modesto.
2. Types of facilities and agreements required: AT&T has underground facilities on Kiernan Ave. (Broadway Ave., SR-219). PG&E has a distribution gas pipeline on Kiernan Ave. (Broadway Ave.SR-219). MID have aerial distribution facilities on Kiernan Ave. (Broadway Ave. SR-219). The City of Modesto has a 12" water main on Kiernan Ave. (Broadway Ave.SR-219). The PG&E gas pipe, City of Modesto water pipe, and AT&T conduit Structure cross highway 99 in the cell of the Broadway Bridge via what appears to be an encroachment permit.

The agreements required on this project are utility agreement and a utility permit.

3. Is any facility a longitudinal encroachment in existing or proposed access controlled right of way? Yes

PG&E has a 4" steel gas main on SR 219 that passes through the cells of the overcrossing and extends 1,180' to Sisk Rd. AT&T has 12-4" conduits that pass through the cells of the overcrossing and terminate in a manhole 1420' east of the bridge. From that point AT&T has 390' of 8-4" conduits that terminate in a manhole on Sisk Rd. The City of Modesto pipeline on SR 219 that passes through the cells of the overcrossing and extends 1,180' to Sisk Rd. MID has 12 poles and associated conductors and equipment on the north side of SR219 from the ramps to Kiernan Ct.

Disposition of longitudinal encroachment(s):

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

Longitudinal encroachments are in SR 219, which is a conventional highway. Per recommendation of District 10, no exception to policy is required.

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>3</u>	U5-7 _____
-2 _____	-8 _____
-3 <u>3</u>	-9 <u>4</u>
-4 _____	

Prepared By:

John Beebe
 Right of Way Utility Estimator

1/21/09
 Date

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ESTIMATE WORKSHEET
 (Form #)

DISTRICT COUNTY ROUTE
 10 STA 99
 ALTERNATIVE 2

P.M./K.P.
 PM 21 9/23 1
 EA 10-0L330K

DATE		9-Mar-09		PAGE 1 OF 1								
TYPE	PARCEL	P.M./K.P.	ESTIMATED COST (4)	RAP COST (5)	CLEAR/DMC NO RAP DISPL (6) (7)	NO CLEAR/ DEMO (8)	NO CONST PERMITS (9)	CCW COST (10)	ESCROW COST (11)	NAME - OTHER INFO.	RW AREA (ft²) (12)	EXC. AREA (ft²) (13)
C	136-007-016	21-9/23.1	1,660,000	150,000	25,000	4	1		2500	JOHN PAOLUCCIO CONSULTING EN	24829	0
C	135-045-033		320,000	0	0	0	0		2500	GARY L. GRITTON	21109	0
C	135-045-056		1,625,000	150,000	75,000	1	1		2500	WILLIAM E. BOAMAN	70131	0
C	135-041-005		20,000	0	0	0	0		2500	CHEN M. & C.L. LIVING TRUST	18634	0
B	135-041-018		135,000	30,000	7,500	1	1		2500	CRAIG G. COKER	9163	0
C	135-041-034		775,000	40,000	40,000	1	1		2500	GARCIA & SILVEIRA PROPERTIES LLC	27511	0
B	135-041-033		1,295,000	0	0	0	0		2500	CRAIG G. COKER	174240	0
C	135-042-020		560,000	0	0	0	0		2500	CALIF ALMOND GROWERS EXC.	62003	0
C	135-053-004		15,000	0	0	0	0		2500	HAPPY BEESKING OF CENT. VALL. II	776	0
B	135-045-038		345,000	40,000	25,000	1	1		2500	DHALIWAL, AMARJIT J. & R.K.	23312	0
B	136-019-002		485,000	0	0	0	0		2500	RAYLEN GRITTON	43998	0
C	135-045-037		10,000	0	0	0	0		2500	RICHARD A. & BRENDA K. LOWRY	731	0
C	135-045-029		210,000	0	0	0	0		2500	RICHARD A. & BRENDA K. LOWRY	14860	0
B	135-045-011		200,000	40,000	25,000	1	1		2500	MICHAEL & RENEVEE SILVA	7807	0
B	135-045-010		20,000	40,000	25,000	1	1		2500	FREDERICK B. BUTTERWORTH	10079	0
TOTAL			7,535,000	900,000	222,500	10	7		37,500		509,481	0
GRAND TOTAL FROM ALL PAGES			8,295,000									

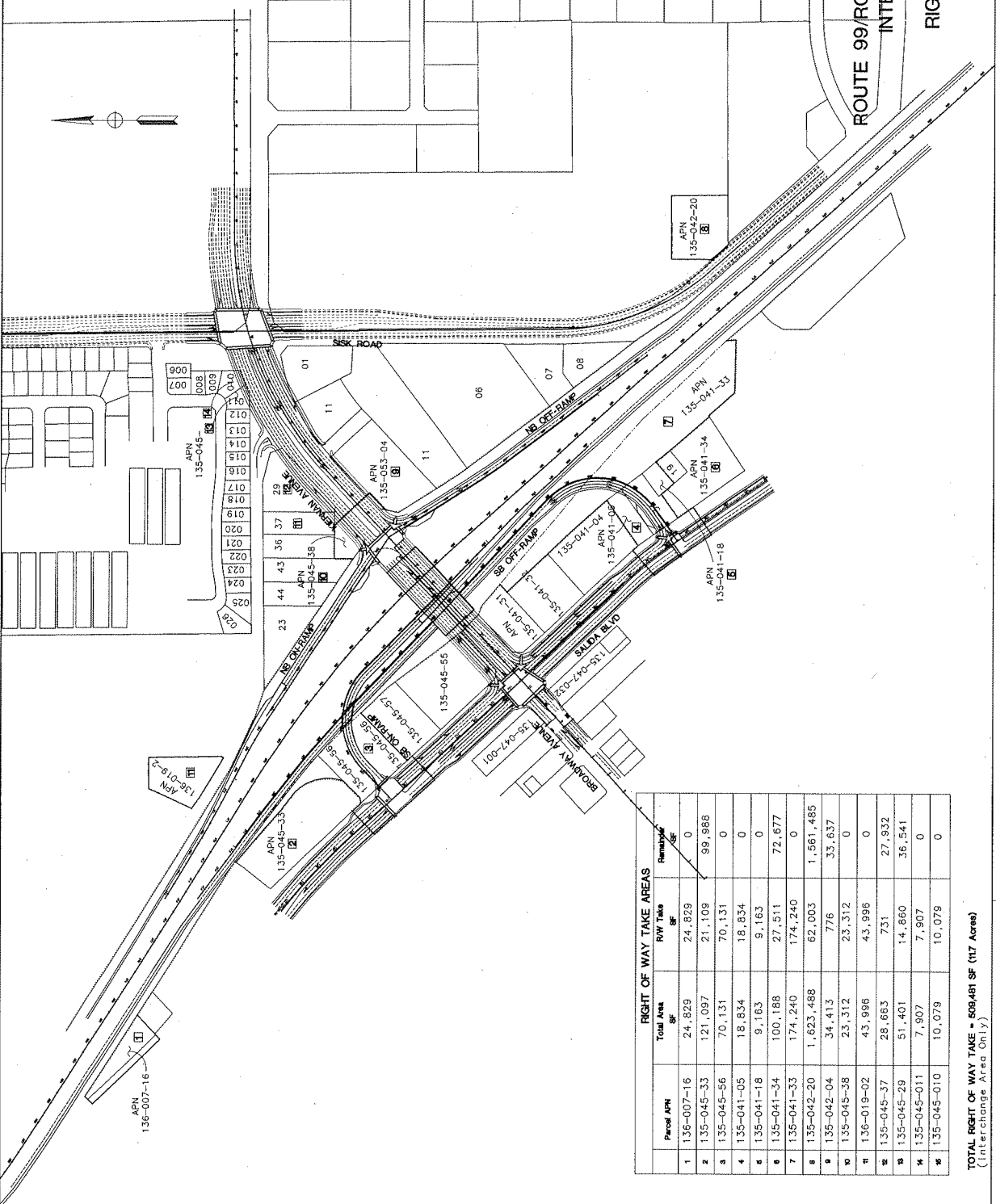
PROJECT PERMITTER	ESTIMATED COST (15)	TYPE OF PERMIT (16)	DATE TO EXPEND (17)
(14)			
TOTAL			
GRAND TOTAL FROM ALL PAGES			

*Parcel 1 cost includes billboard.

DIST COUNTY ROUTE 10 STA 99 21.9/23.1
 SHEET NO. 10
 TOTAL SHEETS 11

PROFESSIONAL CIVIL ENGINEER
 STANISLAUS COUNTY
 1010 10TH STREET, SUITE 3500
 MODESTO, CALIFORNIA 95354
 RAJAPPAN & MEYER
 CONSULTING ENGINEERS, INC.
 1038 LEIGH AVENUE SUITE 100
 SAN JOSE, CALIFORNIA 95128

PLANS APPROVAL DATE
 THE APPLICANT'S RESPONSIBILITY IS TO VERIFY THE ACCURACY AND COMPLETENESS OF ALL DATA AND INFORMATION PROVIDED TO THE ENGINEER. THE ENGINEER'S RESPONSIBILITY IS TO PREPARE THE PLANS IN ACCORDANCE WITH THE PROFESSIONAL ENGINEERING ACT AND THE STANDARDS OF PRACTICE. THE ENGINEER DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED TO THE ENGINEER. THE ENGINEER'S RESPONSIBILITY IS TO PREPARE THE PLANS IN ACCORDANCE WITH THE PROFESSIONAL ENGINEERING ACT AND THE STANDARDS OF PRACTICE. THE ENGINEER DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED TO THE ENGINEER.



ROUTE 99/ROUTE 219 (KIERNAN AVENUE)
 INTERCHANGE PROJECT
 ALTERNATIVE 2
 RIGHT OF WAY TAKE
 SCALE 1" = 200'
 RW-2

RIGHT OF WAY TAKE AREAS				
Parcel APN	Total Area SF	R/W Take SF	Remaining SF	
1	136-007-16	24,829	24,829	0
2	135-045-33	121,097	21,109	99,988
3	135-045-56	70,131	70,131	0
4	135-041-05	18,834	18,834	0
5	135-041-18	9,163	9,163	0
6	135-041-34	100,188	27,511	72,677
7	135-041-33	174,240	174,240	0
8	135-042-20	1,623,488	62,003	1,561,485
9	135-042-04	34,413	776	33,637
10	135-045-38	23,312	23,312	0
11	136-019-02	43,996	43,996	0
12	135-045-37	28,663	731	27,932
13	135-045-29	51,401	14,860	36,541
14	135-045-011	7,907	7,907	0
15	135-045-010	10,079	10,079	0

TOTAL RIGHT OF WAY TAKE = 609,481 SF (117 Acres)
 (Interchange Area Only)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN OVERSIGHT
 CHECKED BY _____ DATE _____
 DESIGNED BY _____ DATE _____
 REVISOR BY _____ DATE _____
 REVISIONS BY _____ DATE _____

ATTACHMENT F
STORM WATER DATA REPORT COVER SHEET (SWDR)



Dist-County-Route: 10-STA-99

Post Mile Limits:

R021.9/R023.2

Project Type: Interchange Reconstruction

EA: 10-0L330K

RU: 10-243 (Design Oversight)

Program Identification:

Phase: PID PA/ED PS&E

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

Is the project required to consider incorporating 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 60 days prior to PS&E Submittal. List submittal date:

Total Disturbed Soil Area: 23.6 acres for Alternative 1 and 30.1 acres for Alternative 2

Estimated Construction Start Date: May 2011 Construction Completion Date: Nov 2013

Notification of Construction (NOC) Date to be submitted: Mar 2011

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 data upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E.

Ng Chi Wai Registered Project Engineer 9/8/08 Date

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

Christina Hibbard, Project Manager 9/10/08 Date

Allan Shafer, Designated Maintenance Representative 9/10/2008 Date

Brad Cole, Central Region Landscape Architect 9/10/2008 Date

Marissa Nishikawa, Central Region NPDES Stormwater Coordinator 9/24/08 Date

**ATTACHMENT G
TMP CHECKLIST**

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*
S *Documentation.*

A *We request the following:*

G *a. Contractor shall work with RE/Inspector to request the necessary lane closures*
E *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

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

REQUIRED	RECOMMENDED	NOT APPLICABLE	BEES Item No.	COMMENTS	ITEM COST	REQUIRED IN SPEC.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		RE to hand-deliver to business/residences.		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		See comments below.		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	066093	Designer to add to budget if public meeting is added.		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Designer to verify impacted groups.		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Web page could be linked to local City pg.		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	066063	Items 1.1 to 1.11 to be handled by CT PIO.	\$50K	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		If Caltrans PIO not used	\$125K	
<input type="checkbox"/>	<input type="checkbox"/>	<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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		See comments below		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	128650	1 pair cms (19 mo.) (3.5k/mo.) = \$66.5k	\$67K	X
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	120690			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	861985	As required.		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	860520			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	066064			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		As needed		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Same as Item 1.9.		
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				

3.0 Incident Management

- 3.1 COZEPP
- 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"/>	<input type="checkbox"/>	<input type="checkbox"/>	066062	2 chp (10 hr) (\$90/hr) (250 days) = \$450K	\$450K	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	066065			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	066876	Existing to remain &/or provide new stations.		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		RE to notify for incident & status closure.		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		TMC will contact TMT as needed.		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>	<input type="checkbox"/>	<input type="checkbox"/>			TBD	X
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Per Lane Closure Charts		X
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Per Lane Closure Charts		X
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				X
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				X
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		As per stage construction if any.		X
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Per drawings/data sheet if any.		X
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	129000			X
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	129150			X
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				X
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		As necessary.		

4.0 Construction Strategies (Continued)

- 4.15 Contingency Plans
 - 4.15.1 Material Plant on standby
 - 4.15.2 Extra Critical Equipment on site
 - 4.15.3 Material Testing Plan
 - 4.15.4 Alternate Material on site
(In case of failure or major delays)
 - 4.15.5 Emergency Detour Plan
 - 4.15.6 Emergency Notification Plan
 - 4.15.7 Weather Conditions Plan
 - 4.15.8 Delay Timing and Documentation Plan
 - 4.15.9 Late Closure Reopening Notification
- 4.16 Signal timing modification
- 4.17 Coordination with adjacent construction
- 4.18 Double Fine Zone (signs)
- 4.19 Right of Way Delay
- 4.20 Other Items

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

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:

Harrie R. Jurgens
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																								
Mondays through Thursdays																								
Fridays																								
Saturdays																								
Sundays																								
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
1	1	1	1	2																	2	2	2	1
1	1	1	1	2																				
																							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:

- 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.

No. 0 00000
Exp. 12-31-09
Laurie R. Jungers
9-18-08

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:

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

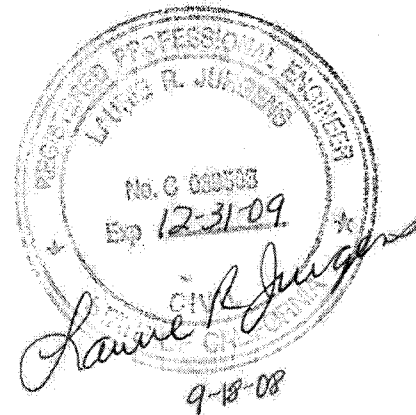


Chart No. 3 Complete Ramp Closure Hours/Ramp Lane Requirements																											
County: STA					Route/Direction: 99/NB										PM: R21.9/R23.2												
Closure Limits: 219 Separation (Broadway) On-ramp																											
FROM HOUR TO HOUR		24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	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:

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



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"> See Lane Closure Restriction for Designated Legal Holidays and Special Days table in Maintain Traffic of these special provisions for additional closure restrictions. Traffic shall utilize next off-ramp. Closures of local roads will require City/County concurrence. 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.

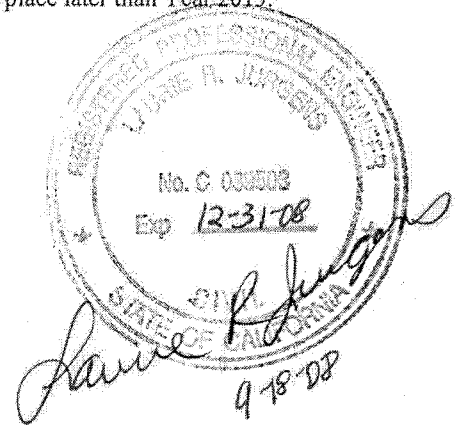


Chart No. 5 Complete Ramp Closure Hours/Ramp Lane Requirements																												
County: STA					Route/Direction: 99/SB										PM: R21.9/R23.2													
Closure Limits: 219 Separation (Broadway) On-ramp																												
FROM HOUR TO HOUR		24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	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:

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

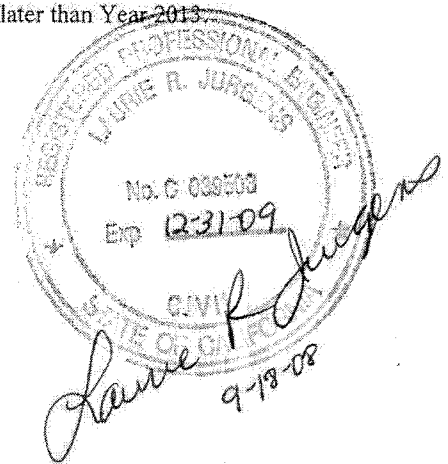


Chart No. 6 Complete Ramp Closure Hours/Ramp Lane Requirements																									
County: STA					Route/Direction: 99/SB										PM: R21.9/R23.2										
Closure Limits: 219 Separation (Broadway) Off-ramp																									
FROM HOUR TO HOUR																									
	24	1	2	3	4	5	6	7	8	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.

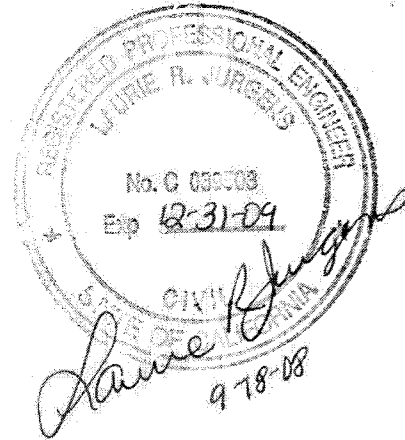
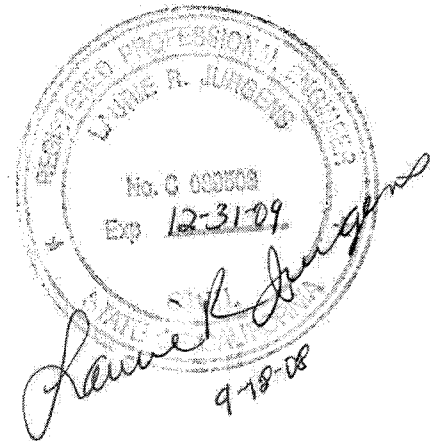


Chart No. 7 Complete Freeway/Expressway Closure Hours (For Demolition, Falsework removal and erection)																									
County:STA					Route/Direction:99/NB & SB										PM:R21.9/R23.2										
Closure Limits: from 1.7 mi South of the existing Hammett interchange, and 0.83 mi North of the existing 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.

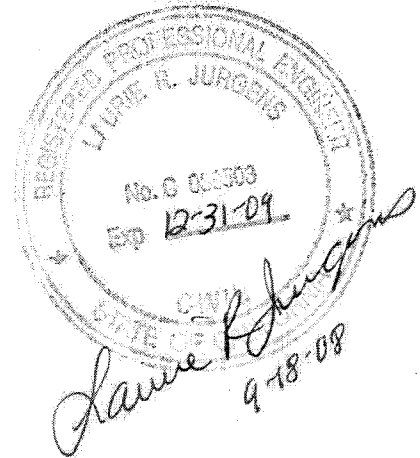


Chart No. 9 Complete Ramp Closure Hours/Ramp Lane Requirements																										
County: STA					Route/Direction: 99/NB										PM: R21.9/R23.2											
Closure Limits: Pelandale Ave NB On-ramp																										
FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	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.

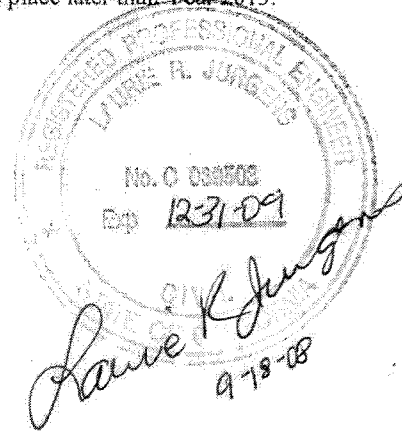
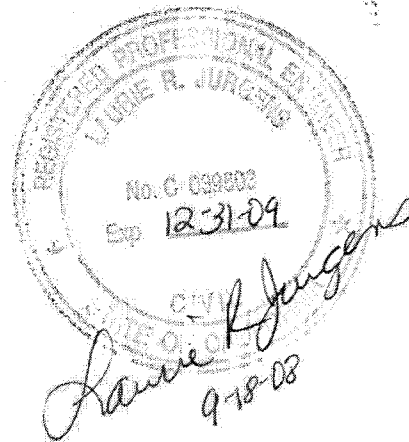


Chart No. 10 Complete Ramp Closure Hours/Ramp Lane Requirements																										
County: STA					Route/Direction: 99/SB										PM: R21.9/R23.2											
Closure Limits: Pelandale SB Off-ramp																										
FROM HOUR TO HOUR		24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	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" }

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. No work that interferes with public traffic will be allowed after 6:00 a.m.									
xx	No work that interferes with public traffic will be allowed before 9:00 a.m.									
xxx	The full width of the traveled way shall be open for use by public traffic. No work that interferes with public traffic will be allowed.									
H	Designated Legal Holiday									
SD	Special Day									

**ATTACHMENT H
PEAR DOCUMENT**



Preliminary Environmental Analysis Report

Project Information

District 10 County Stanislaus Route 99 Post Mile 21.9/23.3 EA OL330K

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

Project Manager Christina Hibbard, Caltrans District 10 Phone # (209) 942-6023

Design Engineer Martha Dadala, Rajappan & Meyer Consulting Engineers
Phone # (408) 280-2772

Environmental Manager Gail Miller Phone # (559) 243-8274

Environmental Planner Generalist Ravchel Skeen Phone # (559) 243-8266

Project Description

Purpose and Need: The purpose of the project is to expand the interchange to better accommodate projected vehicular, pedestrian, and bicycle traffic from implementation of planned housing and business development in the Salida Community Plan Area. Figure 1 describes Regional Vicinity and Project Location. Interchange improvements will be sized to accommodate the traffic anticipated from a 6-lane expressway connection at Kiernan Avenue. Kiernan Avenue, which also serves as State Route 219, is currently programmed for a 4-lane conventional highway within an ultimate 6-lane right-of-way. The need of the project is due to anticipated congestion and inadequacy of the existing interchange to accommodate future traffic needs.

Description of work: The proposed project involves reconstruction of the existing interchange including the overcrossing, on and off-ramps, and roadway segments within the interchange area. On and off-ramps will be widened to accommodate greater traffic volumes entering and exiting the mainline. The existing interchange does not provide adequate vertical clearance (16.5 feet) over State Route 99. This design deficiency will be resolved with the project. The new bridge overcrossing will have a cross section that conforms with the future Kiernan Avenue designation. Additional improvements will be required on the local roadway system to serve local motorists.

It should be noted that the County is planning to widen Kiernan Avenue (State Route 219) as a separate project. This action involves widening of Kiernan Avenue to the east as a major arterial to serve new growth. The roadway is functionally classified as a Major Collector.

Alternatives:

Two alternatives plus the No Build alternative are being considered for reconstruction of the proposed interchange. For each alternative on ramps would include provisions for ramp metering and high-occupancy-vehicle bypass lanes as well as auxiliary lanes between Kiernan Avenue and Pelandale Avenue.

Alternative 1 is a modified Compact Diamond interchange. In this alternative, the existing interchange

ramps, local roads and the ramp and local intersections are proposed to be widened, maintaining their current general configuration as a Compact Diamond interchange. The concept improvement plan is shown in Figure 2.

Changes to the Kiernan Avenue would include construction of a new bridge to a higher profile to accommodate six 12-foot through lanes, four 12-foot turning lanes, a 4-foot median, and 8-foot shoulders and 10-foot sidewalks on either side of the street. This alternative would completely replace the existing Kiernan Avenue overcrossing structure. The new structure would resolve the existing vertical clearance requirements over Route 99.

The intersections at Broadway/Salida Boulevard and Kiernan Avenue/Sisk Road would be widened and remain signalized. Auxiliary lanes are also proposed on Route 99 from Kiernan Avenue to Pelandale Avenue.

Dual left turn lanes would be provided from Kiernan Avenue to each on-ramp. Both on-ramps would be single lane entrance ramps, providing two metered lanes plus one un-metered high-occupancy-vehicle bypass lane on each ramp. The southbound off-ramp at Kiernan Avenue would be a standard two-lane exit ramp with a 1300 foot long auxiliary lane, widened to four lanes with three left turn lanes at the ramp terminus. The northbound off-ramp would also be a two-lane exit ramp, with a single left turn lane and free right turn lane at the ramp terminus.

Alternative 2 is a Hybrid (Type L-1 and L-6) interchange. This alternative would be similar to Alternative 1 in the northbound direction, but would remove the existing southbound ramps and construct new southbound braided buttonhook ramps with access to and from Salida Boulevard. The new southbound buttonhook entrance ramp would be connected to Salida Boulevard north of the Broadway Avenue/Salida Boulevard intersection and would provide 2 lanes (1 high-occupancy-vehicle bypass lane + 1 mixed flow lane) and provision for ramp metering, tapering to a single entrance ramp to southbound Route 99. The southbound buttonhook exit ramp would be connected to Salida Boulevard, south of Broadway Avenue/Salida Boulevard Intersection, and would be a 2-lane exit from the freeway. The southbound off-ramp would be designed as an undercrossing of the auxiliary lanes in both directions on Route 99 between Kiernan Avenue and Pelandale Avenue interchanges, would be the same as Alternative 1. The proposed improvements are shown in Figure 3.

The **No Build** alternative will also be considered. No new interchange improvements would occur with this alternative and the interchange would become a traffic bottleneck for motorists accessing State Route 99 or to simply cross the mainline. None of the local roadway improvements would occur that are intended to facilitate traffic circulation. Unacceptable levels of service would occur and the interchange would not accommodate predicted traffic volumes.

Funding

The project is anticipated to be funded by a combination of Public Facility Fee (PFF), future sales tax revenue and funding from the State Transportation Improvement Program (STIP). Stanislaus County has adopted and has already collected some traffic mitigation funds through City/County Transportation Facilities Public Facility Fee (PFF) program. The anticipated total collection through the PFF is \$50 million in 2007 dollars this project, as shown in the Stanislaus County Impact Fee Update Study, completed in September 2008. The county will pursue STIP funding construction phases to cover any shortfalls.

Anticipated Environmental Approval**CEQA**

- Categorical Exemption/Statutory Exemption**
 Negative Declaration/Mitigated ND
 Environmental Impact Report

NEPA

- Categorical Exclusion/Programmatic CE**
 Finding of No Significant Impact
 Environmental Impact Statement

PSR Summary Statement

The anticipated document for the proposed project is an Initial Study/Mitigated Negative Declaration for the California Environmental Quality Act and an Environmental Assessment/Finding of No Significant Impact for the National Environmental Policy Act. Caltrans would be the lead agency for the purposes of both the California Environmental Quality Act and the National Environmental Policy Act. Under the provisions established by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Caltrans has been delegated authority to review and approve the NEPA process by the Federal Highway Administration (FHWA). Accordingly, on behalf of FHWA, Caltrans will serve as the lead agency for NEPA. Environmental review is expected to start in January 2009 and should be concluded by August 2010. It is estimated that it would take 2,400 – 2,600 person hours to complete the identified tasks in this report. The major environmental issues to be addressed include community impacts, noise, air quality, cultural resources, drainage, hazardous waste/materials, visual and farmland.

Assumptions and Risks**Assumptions:**

- Scope as defined in current build alternatives
- New right-of-way acquisition from 4.6 acres (affecting 10 parcels) to 10.45 acres (affecting 11 parcels) will be required for the proposed project, depending on alternative.
- Federal Funding
- Biological Resources:
 - Mitigation for oak trees
- Cultural resources:
 - ASR, Extended Phase I, Archaeological Evaluation Report (AER), HRER, HPSR will be completed. If no resources are determined eligible this portion of the Section 106 process will require six months to complete.
 - Five cultural resources will require formal evaluation (including 2 buildings)
 - If resources are determined eligible, a Finding of Effect (FOE) will be required. If impacts are adverse a Memorandum of Agreement (MOA) and Historic Property Treatment Plan (HPTP) will address mitigation requirements. As a result of multi-agency participation, this portion of the Section 106 process can take an additional six months.
 - Native American consulting parties do not object to methods/findings.
- No hazardous waste issues.
- No cumulative impacts associated with traffic congestion.
- No visual impacts.
- No air quality impact due to carbon dioxide.
- No Federally listed special status species.
- No waters of the U.S.
- No regulatory permits.

Risks:

- Moderate Probability/High Impact: Design plans change to include activities not currently identified in the request (November 2008) would increase project costs and schedule delay for cultural resources (1 additional year).
- Low Probability/High Impact: If additional archaeological or architectural properties requiring evaluation were identified in the APE, then increased project costs and schedule delay (up to 1 year) would occur.
- Low Probability/High Impact: FHWA/SHPO disagrees with effects finding and require extended MOA consultation, then increased project costs and schedule delay (up to 6 months) would occur.
- Low Probability/High Impact: Significant Native American controversy would increase costs and delay schedule 6 months to 1 year.
- Low Probability/High Impact: If unforeseen issues of hazardous waste, visual, air quality, or cumulative impacts due to traffic are encountered, then increased project costs, schedule delay (up to 6 months) would occur.
- Low Probability/Moderate Risk: Significant public controversy necessitating a public meeting would add 4-6 months to schedule.
- Moderate Probability/High Impact: Business and/or residential displacements could involve litigation due to disagreement in compensation allowances. Delay of up to 1 year or more could occur if litigated.

Mitigation

Mitigation estimates are based on preliminary studies from the proposed project and without necessary concurrence from federal resource agencies. Therefore, final mitigation costs may vary from those provided in this document.

Right of Way Capital (050) Total: \$ 120,000
\$120,000 for mitigation banks for loss of habitat including oak trees

Construction Capital (042) Total: \$ 130,000
\$110,000 for cultural resources mitigation
\$10,000 for paleontology mitigation
\$10,000 for hazardous materials mitigation
Costs for displacement of residences and businesses are not included in this document.

10-0L320K


This report is not an environmental document. Preliminary analysis, determinations, and estimates of mitigation costs are based on the project description provided in this report. The estimates and conclusions provided are approximate and are based on cursory analysis of probable effects. This report is to provide a preliminary level of environmental analysis to supplement the Project Initiation Document. Changes in project scope, alternatives, or environmental laws will require a reevaluation of this report.

Reviewed by:




Environmental Manager

Date: 12-19-08



Environmental Office Chief

Date: 12-19-2008



Project Manager

Date: 1/12/09

Environmental Technical Reports or Studies Required

	Study	Document	N/A
Community Impact Study	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Farmland	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Section 4(f) Evaluation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Visual Resources	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Floodplain Evaluation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Noise Study	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Quality Study	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paleontology	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wild and Scenic River Consistency	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Cumulative Impacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cultural			
ASR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HRER	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HPSR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Section 106	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SHPO Concurrence	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Native American Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Finding of Effect	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data Recovery Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hazardous Waste			
ISA (Additional)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PSI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Biological			
Endangered Species (Federal)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Endangered Species (State)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Species of Concern (CNPS, USFS, BLM, S, F)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Biological Assessment (USFWS, NMFS, State)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wetlands	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Invasive Species	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Natural Environment Study	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NEPA 404 Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Permits			
401 Permit Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
404 Permit Coordination (NW)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1600 SAA Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
City/County Coastal Permit Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
State Coastal Permit Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NPDES Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
US Coast Guard (Section 10)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
State 2081 Permit	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Technical Review

Socio-economic and Community Effects

The project is expected to directly affect the local community and economy both in the short term and long term due to the loss of business, commercial, and residential areas because of project design. Interchange reconstruction will encroach into business and commercial areas as needed to widen Kiernan Avenue. Proposed improvements, irrespective of the alternatives, cause direct effects to an established neighborhood north of the Kiernan Avenue/Sisk Road intersection. A Community Impact Assessment is required to analyze the project's effects on the existing community, including the potential Environmental Justice concerns. Also, a Relocation Impact Report will be needed to determine new locations for displaced businesses and residents. This may take an estimated 4-5 months for completion. No additional permits or agency coordination required.

Farmlands

On the east side of the project area, farmlands could be affected by the widening of Kiernan Avenue in the vicinity of Sisk Road. In this area, an almond orchard is located on the southeast corner of the existing Kiernan Avenue/Sisk Road intersection. Approximately 40-50 trees in the orchard could be impacted due to widening of Sisk Road. Widening of the existing Kiernan Avenue/Sisk Road intersection could affect fallow farmland to the north. A Farmland Conversion Impact Rating Form will be prepared and submitted to the Natural Resources Conservation Service to determine the effects from loss of farmlands due to the project, if the initial rating exceeds 160 points. This may take an estimated 2-3 months for completion. No additional permits or agency coordination required.

Section 4(f) Impacts

(Not Applicable) The project is not expected to have 4(f) issues as a result of any temporary or permanent impacts on recreational facilities. No additional permits or agency coordination required.

Visual Effects

There are no existing designated visual or scenic resources present within or adjacent to the project area. Tree losses within the interchange area and along roadways in the agricultural areas are expected due to the development of the support roadway network. Accordingly, a Scenic Resources Evaluation should be prepared to document the roadway network. As no scenic resources are expected in the project area, it is anticipated that further visual studies (i.e. Visual Impact Assessment) will not be recommended. This may take an estimated 3-6 weeks for completion. No additional permits or agency coordination required.

Water Quality and Erosion

(Not Applicable) The site is not expected to have any unusual water quality problems. No water resources are located within the project area that might be affected over both the long and/or short term by erosion or runoff from new roadway surfaces and/or construction activities. No additional permits or agency coordination required.

Floodplain

(Not Applicable) The project site is not located within the 100-year floodplain, and has no unusual flood or drainage issues. No additional permits or agency coordination required. It should be noted that additional runoff will be generated resulting in the need to provide on-site detention. Also, the existing pump station serving State Route 99 must be relocated to accommodate new interchange geometry.

Air

Potential short term air quality issues are expected from construction activities of the interchange. Standard dust control measures and compliance with San Joaquin Valley Air Pollution Control District rules and regulations will be required during construction. An air quality analysis will be required to determine both the short term and/or long term project-specific impacts, conformity, and mitigation. This may take an estimated 6-8 weeks for completion. Coordination will be required with San Joaquin COG and Caltrans regarding air quality conformity consultation processes. The air quality conformity analysis must identify the status of this project as a potential project of air quality concern. No permits are needed for this process.

Noise

Potential short term noise issues are expected from construction activities of the interchange. For noise, while the existing interchange does not have any affect on existing sensitive receptors, the new interchange, including the support circulation network, could have a long term noise impacts on existing and future residential and commercial business uses. An Acoustical Analysis will be prepared to identify any potential short term and/or long term impacts associated with the project. This may take an estimated 6-8 weeks for completion. If attenuation is required a Noise Abatement Decision Report will be required to accept the mitigation recommendations. No additional permits or agency coordination required.

Wild and Scenic River

(Not Applicable) The nearby Stanislaus River is a not federally designated wild and scenic river. The interchange reconstruction will have no direct effect on the river. No additional permits or agency coordination required.

Paleontology

The project area has the potential to contain Pleistocene sediments located within the Modesto Formation. Moderately developed Holocene soils overlying the Pleistocene deposits and the potential need for drainage basins within the project area suggest a potential for encountering paleontological resources during construction/earth moving activities. A Paleontological Identification Report (PIR) would be prepared and certified by a qualified paleontologist to document the identification efforts for paleontological resources and the need for paleontological monitoring during construction activities based on project design. If paleontological resources are identified during construction monitoring, a Paleontological Evaluation Report (PER) will be prepared by a qualified paleontologist to evaluate the significance of the paleontological resource within the project area. The PER would address avoidance of resources and the mitigation requirements for paleontological resources occurring within the project area. This may take an estimated 3 months for completion. No additional permits or agency coordination required.

Cultural Resources

Research on previous cultural studies conducted in the area identified four cultural resources that will require evaluation for eligibility for listing in the National Register, if the final Area of Potential Effect boundary includes these resources. As a result of potential sources for federal funding, cultural resource studies would be needed to address requirements of Section 106 of the National Historic Preservation Act, in accordance with the *Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and Caltrans regarding Compliance with Section 106 of the National Historic Preservation Act* (Caltrans 2004). The proposed Area of Potential Effect must include all access roads, work areas, and staging areas beyond the existing paved highway.

Findings of the HRER/ASR will be presented in the HPSR. A Finding of Effect (FOE) will be required to evaluate the project's impact on National Register eligible properties. If eligible cultural

resources are not impacted by the project, the project's Section 106 responsibilities would be fulfilled. This portion of the Section 106 process may take up to six months to complete. Any subsequent changes in project scope may require additional archaeological or historical review. No additional permits or agency coordination required. Coordination may be required with SHPO if eligible resources are impacted.

Native American Coordination

On May 5, 2008, LSA sent a letter with maps depicting the project area to the Native American Heritage Commission (NAHC) in Sacramento asking the commission to review their sacred lands file for any Native American cultural resources that might be affected by the project. A fax from a NAHC Program Analyst informed LSA that a review of the Sacred Lands File did not "indicate the presence of Native American cultural resources in the immediate project area." A list of Native American contacts was also provided. Those from the list have been contacted and no concerns were identified. No additional permits or agency coordination required.

Hazardous Waste/Materials

An Initial Site Assessment (ISA) has been conducted for the proposed interchange reconstruction. The ISA included a government records search and a site survey for potential hazardous wastes and materials. There is some evidence for current contamination from existing or past land uses, activities or operations, which would present potential hazards for construction workers. The site survey determined that reflective paint was used on the Union Pacific Railroad bridge overcrossing (south side only) that could contain lead. Hazardous thermoplastic striping material has been used to designate travel lanes. Removal and disposal of the striping must be conducted in accordance with applicable safety laws and regulations. Testing for lead in the reflective paint and the potential for hazardous waste is required. The project extends through right-of-way utilized by Union Pacific Railroad. Testing to ensure that the agricultural lands do not contain hazardous wastes from agricultural practices or UPRR lands will be required. The risk ranking for the interchange is considered low.

Studies for aerially deposited lead (ADL) will be conducted prior to construction activities. If naturally Occurring Asbestos (NOA) is suspected, testing will also be conducted. Measures will be identified to protect the health and safety of construction workers. This may take an estimated 4-5 months for completion. No additional permits or agency coordination required.

Biological Resources

The project may have a short term and/or long term affect sensitive biological resources. The existing SR-99 bridge should be inspected for the presence/absence of bats, nesting swallows, and other protected species. Burrowing owls could be present and raptors (including Swainson's hawk) could forage within the agricultural lands that will be affected by developing the support roadway network. Impacts to burrowing owls were addressed in the State Route 219 Widening Project; preconstruction surveys and avoidance measures were recommended. However, the State Route 219 Widening Project did not consider impacts relating to improvements along Sisk Road. Loss of tree resources in this area could also affect nesting birds. Bird and bat surveys should be completed in the spring/summer season. If surveys find that the project has the potential to affect sensitive biological resources then coordination with CDFG would be required. The California Natural Diversity Data Base does not indicate any other known sensitive biological resources in this location. There are no known sensitive plant species in this location. Avoidance and minimization measures may be required, as well as potential mitigation for oak tree loss in the interchange area. Impacts to federally listed species are not anticipated. The project has potential seasonal constraints. A work window may be enforced as avoidance for nesting swallows or other birds during the nesting season (March 1 through August 31). This may take an estimated 2-3 months for completion. No additional permits

required. A Natural Environment Study – Minimal Impact may provide an appropriate level of biological analysis to address site resources.

Wetlands

Based on reconnaissance level field review, it appears that no wetlands are present within the project boundary that are subject to Army Corps of Engineers jurisdiction. No agency permits are required.

Invasive Pest Plant Species

Executive Order 13112 requires that any federal action may not cause or promote the spread or introduction of invasive species. This project will use machinery capable of transporting invasive plant species on and off the project site. To avoid spreading invasive plant species all earthmoving and seeding equipment will be thoroughly washed before entered the site and prior to leaving. No additional permits or agency coordination required.

Right-of-Way Relocation or Staging Area

New Right-of-Way will be required for this project. It is expected that staging will occur primarily within the open areas of the existing interchange, although some adjacent lands may also be required. Material sites and disposal sites are indicated, but not identified. Areas of right-of-way acquisition and staging areas will require complete environmental evaluation as part of this project. No additional permits or agency coordination required.

Permits

(Not Applicable) Permits from the State Department of Fish and Game (1602), U. S. Army Corps of Engineers (Section 404), U.S. Coast Guard (Section 10), and the Regional Water Quality Control Board (Section 401) will not be required. There are no lands or waters within the project area considered jurisdictional by these agencies. Additional permits for the material site and disposal site (if required) may be necessary.

Coastal Zone

(Not Applicable)

List of Preparers

LSA Associates, Inc.

Bill Mayer, Principal: Preliminary Environmental Assessment Report documentation, hazardous waste/materials research; project management

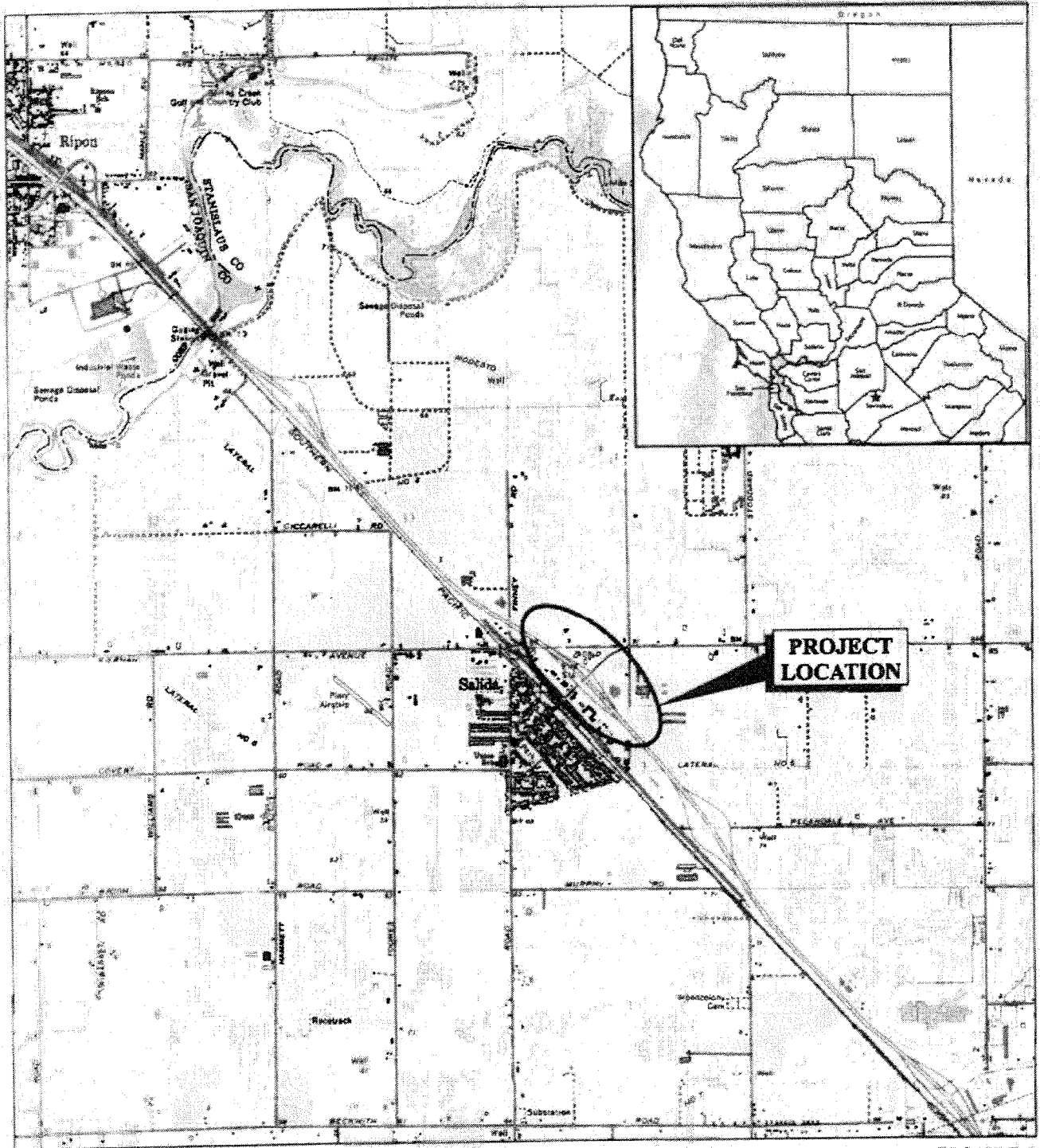
Amberly Morgan, Assistant Environmental Planner: Preliminary Environmental Assessment Report documentation

Mike Trueblood, Assistant Biologist: Biological documentation

Neal Kaptain, Archaeologist: Cultural resource documentation

Karin Goetter, Archaeologist: Cultural and paleontological resources documentation

Hazardous Waste Review by: Bill Mayer, Principal	Date 2004
Biological Review by: Mike Trueblood, Assistant Biologist	Date 2007
Cultural Review by: Neal Kaptain, Archaeologist	Date 2004
Cultural/Paleontology Review: Karin Goetter, Archaeologist	Date 2008
Community Impact Review by: Bill Mayer, Principal	Date 2008
Visual Review by: Bill Mayer, Principal	Date 2008
Floodplain Review by: Bill Mayer, Principal	Date 2008



LSA

FIGURE 1

SOURCE USGS 7.5' QUAD - SALIDA

SR-99/Kirman Avenue Interchange
Project Location and Vicinity

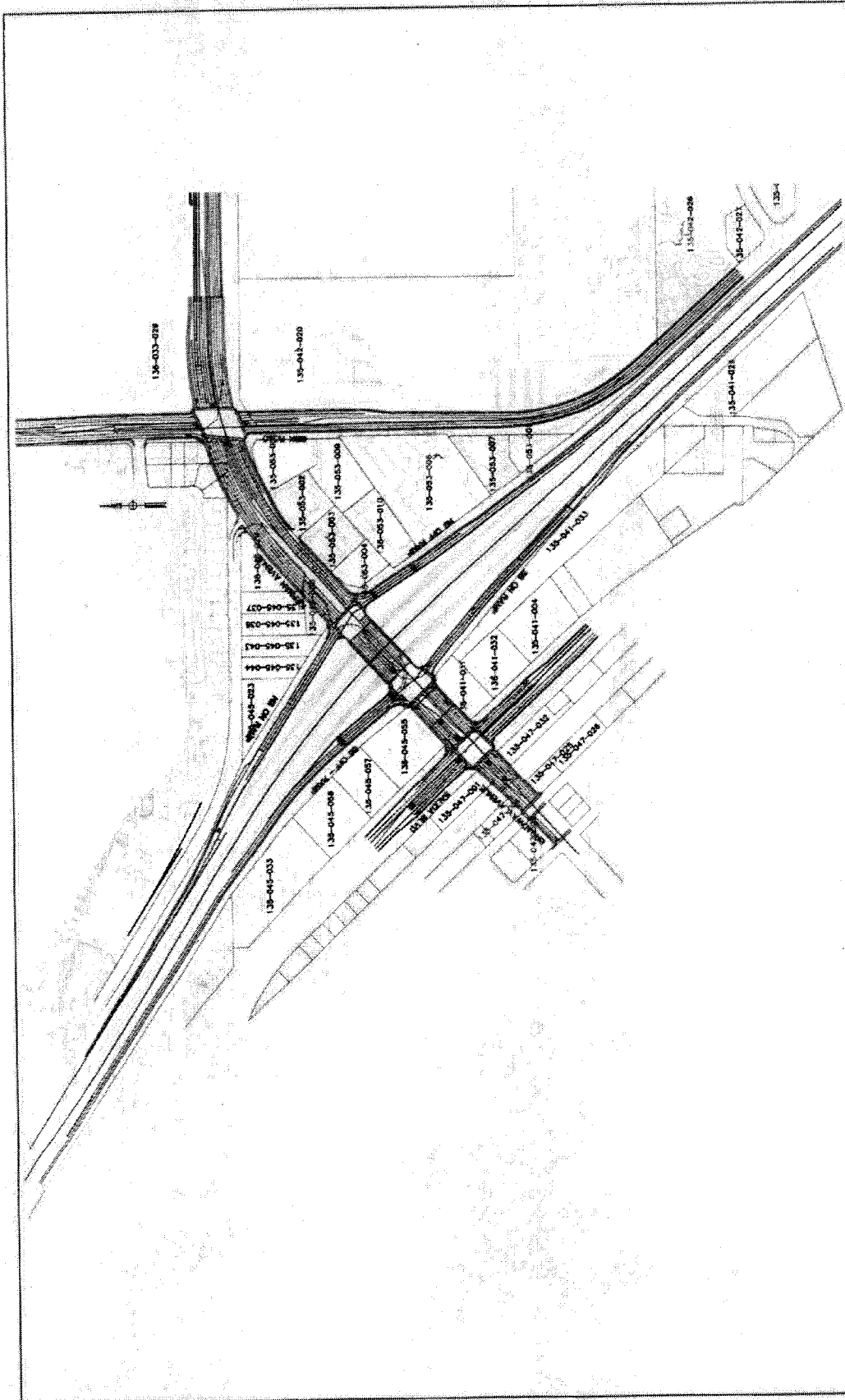


FIGURE 2

SR 99/Kirkman Avenue Interchange
 Alternative 1 (Compact Diamond Interchange)

LSA



SOURCE: Raytheon & Mott, 2007

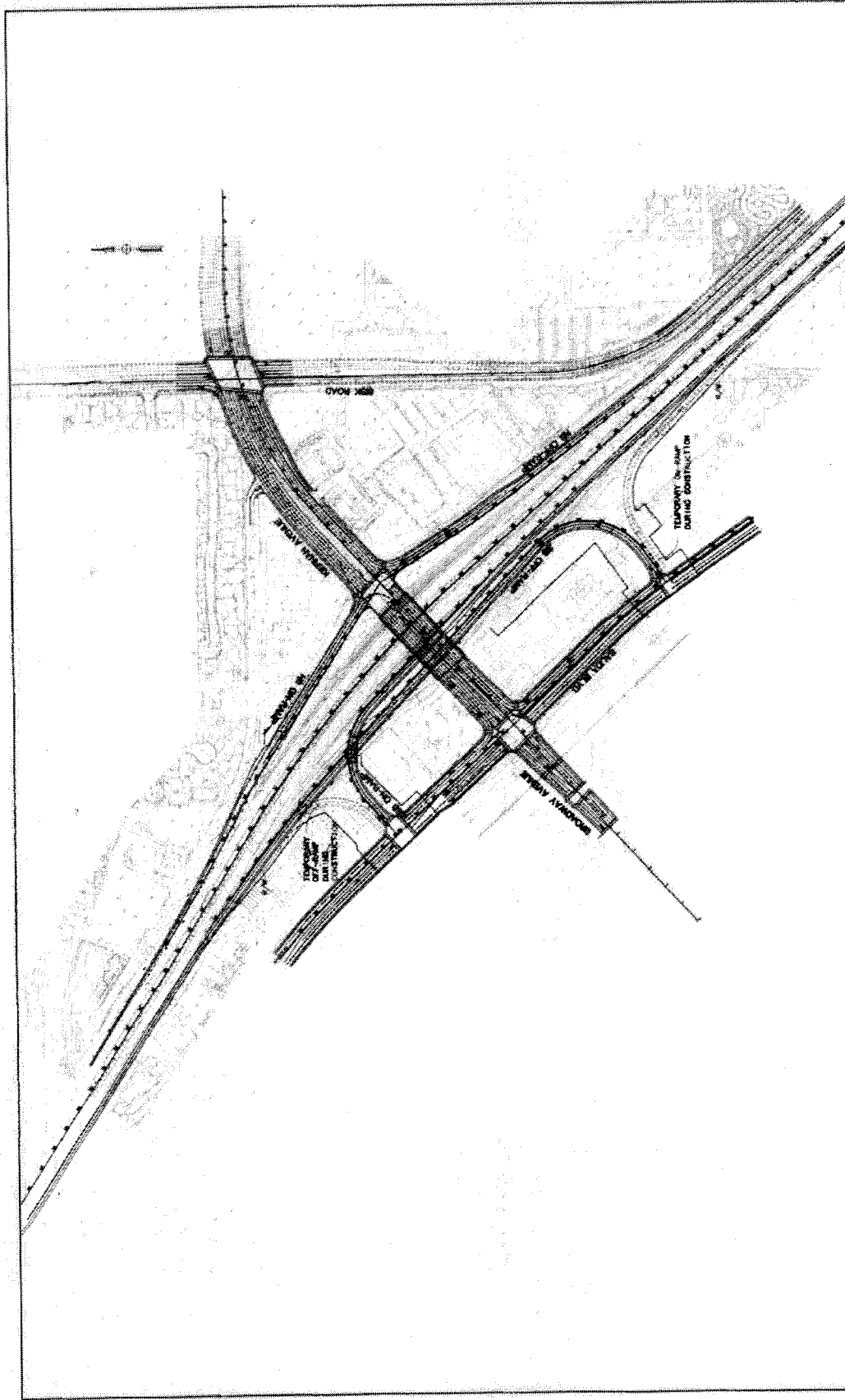


FIGURE 3

SR-99/Zirnen Avenue Interchange
 Alternative 2 (Hybrid Type L-1 and L-6 Interchange)

LSA
 1" = 100'
 SOURCE: Raytheon & M&E, 2007

**ATTACHMENT A – RESOURCES BY WORK BREAKDOWN
STRUCTURE CODE**

ATTACHMENT A - Resources by WBS Code

EA: 10-cl 130k	Description: Kierman Avenue/SR-89 Interchange Reconstruction	WBS Task Activity Code	Senior	Generalist	Landscape Architect	Biologist	Cultural Resource Specialist	Prehistoriologist	Haz Waste Specialist	Socio-Economic Specialist	R/W & Relocation Specialist	Storm Water Specialist	Noise/Air Specialist	Total
		Assigned Unit												
100	Project Management													
100.05	Develop and Manage Schedule & Support Budget		25											25
100.06	Develop and Manage Initial (RFP) Project Schedule		25											25
100.08	Develop and Manage Baseline Schedule		20											20
100.09	Develop and Manage Work Agreements		20											20
100.10	Maintain Project Data		20											20
100.11	Respond to Internal and External Requests for Information		19											19
100.20	Secure External Releases													
150	Conduct Initial Cultural Studies													
150.20.30	Conduct Initial Archaeology Study													
150.20.35	Conduct Initial Duff Environment													
150.20.70	Conduct Initial Native American Coordination													
160	Perform Preliminary Engineering Studies and Prepare Draft Project Report													
160.10.20	Review Project Scope		20											20
160.15.20	Conduct Review & Approve Draft Project Report		40											40
160	Perform Environmental Studies and Prepare Draft Environmental Document													
160.05	Perform Environmental Studies & Select Alternatives for Study													
160.05.05	New Project Identification		10											10
160.05.10	Project Identification		10											10
160.05.15	Select A/E for EIS Study		10											10
160.05.20	Meet for EIS Evaluation													
160.10	Perform General Environmental Studies													
160.10.05	Survey & Map for Study		10											10
160.10.10	Obtain Rights of Entry		20											20
160.10.15	Obtain Economic, Land Use & Growth, Farms of													
160.10.20	Obtain Topographic Maps				40									40
160.10.25	Noise Study													
160.10.30	Air Quality Study													
160.10.35	Water Quality Studies													
160.10.40	Energy Studies		10											10
160.10.45	Summarize Geotech Report													
160.10.50	Summarize Geotech Report by Hazardous Waste													
160.10.55	Part of New Relocation Project Document													
160.10.60	Location Hydraulic/Geotechnical Study Report													
160.10.65	Palaeontology Study													
160.10.70	Perform Biological Studies													
160.10.75	Biological Assessment													
160.10.80	Premit Coordination													
160.10.85	Premit Coordination													
160.10.90	NES Report (Initial Impact)													
160.10.95	Perform Cultural Resource Studies													
160.20	Perform Cultural Resource Studies													
160.20.05	Prepare APE Map													
160.20.05.10	Native American Consultation													
160.20.05.15	Archaeology Survey													
160.20.05.20	Extended Phase I Archaeology Studies (Prepare ASR with site plan)													
160.20.05.25	Extended Phase I Archaeology Studies (Prepare ASR with site plan)													
160.20.05.30	Historical Archaeology Studies (Prepare ASR with site plan)													
160.20.05.35	Historical Archaeology Studies (Prepare ASR with site plan)													
160.20.05.40	Cultural Resource Compliance Docs													
160.20.05.45	Final APE Map/Study Area Map													
160.20.05.50	Prepare HPSR													
160.20.05.55	Prepare HPSR													
160.20.05.60	Prepare FCE/MDA													
160.20.05.65	Prepare FCE/MDA													
160.20.05.70	Prepare and Approve Draft Environmental Document													
160.20.05.75	Prepare DED		75											75
160.20.05.80	40 Evaluation		20											20
160.20.05.85	PEACE Determination													
160.20.05.90	Peer & Other Reviews		100											100
160.20.05.95	Obtain Approval for C/E		25											25

WIS Task Activity Code	Senior	Generalist	Landscaper Architect	Biologist	Cultural Resource Specialist	Palentologist	Her Waste Specialist	Socio-Economic Specialist	RW & Relocation Specialist	Storm Water Specialist	Noise/Air Specialist	Total
175 Circulate Draft Environmental Document and Select Preferred Project Alternative												
175.05 - Circulate DE	15	20										35
175.05.05 - Master Dist & Inv Lists		20										20
175.05.10 - Notice Regarding Public Hearing & Availability		10										10
175.05.15 - Public & Citizen DE	30	50										80
175.05.20 - Public Hearing (Required)												5
175.10 - Hold Public Hearings	5	30										35
175.10.05 - Determine Need for Pub Hearing		30										30
175.10.10 - Pub Hearing Logistics	20	30										50
175.10.15 - Displays for Pub Hearing	5	20										25
175.10.20 - Notices of Public Hearing & Availability	5	10										15
175.10.25 - Display Public Hearing Notice		10										10
175.10.30 - Hold Public Hearing	10	10										20
175.10.40 - Distribute Record of Pub Hearing	30	40										70
175.15 - Respond to Public Hearing Comments	10											10
175.20 - Select Preferred Alternative												5
185 Prepare and Approve Project Report and Final Environmental Document												
185.05 - Prepare Final Report (FR)	25	10										35
185.10.05 - Prep & Approve EIS	5	10										15
185.10.05.10 - Public Circulation of FR for Review	5	10										15
185.15 - Close Out Environmental Process	5											5
185.15.05 - Prep & App ROD (NEPA)												5
185.15.10 - Prep & File ROD (CEQA)		5										5
205 Obtain Permits, Agreements and Resolve Applications												
205.05 - Determine Required Permits												
205.10 - Obtain Permits												
205.10.05 - Army Corp Permit (dtd)												
205.10.10 - USFS Permit												
205.10.15 - US Coast Guard Permit												
205.10.20 - California State Water Control Permit												
205.10.25 - Coastal Dev Permit												
205.10.30 - Loc Agency Concurrence												
205.10.40 - Waste Disch (NPDES)										50		50
205.10.45 - USFWS Approval												
205.10.50 - RWQO/SB Permit (dtd)												
235 Mitigate Environmental Impacts and Clean-up Hazardous Waste												
235.05 - Perform Environmental Mitigation	40	40		30								110
235.10 - Perform Detailed Site Investigation for Haz Waste							75					75
235.20 - Perform HW Clean-up				100								100
235.35 - Long Term Mitigation Monitoring												
245 Clean-up, Review and Prepare Final District PS&E Package												
245.10 - Env Remediation					80							80
270 Perform Construction Engineering and General Contract Administration												
270.05 - Prepare Contract												
270.10 - Construction Monitoring (Cultural)					30							30
285 Prepare and Administer Contract Change Orders												
285.10 - Environmental Support for Construction	40	40		90								170
Total Project Hours	750	1,050	40	260	1,185	80	240	50	240	50	180	4,312

ATTACHMENT B – PROJECT TIMELINE

Kiernan/SR-99 Interchange Reconstruction Schedule

Task Name	Duration	Start	Finish
Design	65 days	Mon 1/26/09	Fri 4/24/09
Right of Entry	40 days	Mon 1/26/09	Fri 3/20/09
Env. Techn. Studies	238 days	Mon 2/16/09	Wed 1/13/10
Cultural Studies	238 days	Mon 2/16/09	Wed 1/13/10
Surveys/Records Search	35 days	Mon 2/16/09	Fri 4/3/09
HRER	54 days	Mon 3/2/09	Thu 5/14/09
ASR	30 days	Mon 3/2/09	Fri 4/10/09
HPSR	8 days	Thu 5/14/09	Mon 5/25/09
Caltrans/SIPO Review	30 days	Mon 5/25/09	Fri 7/3/09
Finding of Effect	60 days	Fri 7/3/09	Thu 9/24/09
Caltrans/SIPO Review	80 days	Thu 9/24/09	Wed 1/13/10
106 Clearance	1 day	Wed 1/13/10	Wed 1/13/10
Paleontology	30 days	Mon 3/2/09	Fri 4/10/09
Biology Studies	48 days	Mon 3/23/09	Mon 5/25/09
Surveys	20 days	Mon 3/23/09	Fri 4/17/09
NES-MI	27 days	Fri 4/17/09	Mon 5/25/09
Noise/Air	25 days	Mon 4/19/09	Fri 5/8/09
Water Quality/Drainage	30 days	Mon 3/9/09	Fri 4/17/09
ISA Hazmat	30 days	Mon 3/9/09	Fri 4/17/09
PSA Hazmat	85 days	Fri 4/17/09	Thu 8/13/09
Visual Impacts	20 days	Fri 5/1/09	Thu 5/28/09
Relocation Study	75 days	Fri 5/1/09	Thu 8/13/09
Community Impact Assess.	20 days	Fri 5/1/09	Thu 5/28/09
Farmland Conversion	40 days	Mon 4/20/09	Fri 6/12/09
AD IS/EA; Peer Review	45 days	Mon 4/20/09	Fri 6/19/09
Caltrans Review	30 days	Fri 6/19/09	Thu 7/30/09
Draft IS/EA Revision	20 days	Thu 7/30/09	Wed 9/23/09
Caltrans/FHWA Approval	20 days	Wed 8/26/09	Tue 9/22/09
Public Review/Circulation	23 days	Tue 9/22/09	Thu 10/22/09
Prof. Altern./Responses	11 days	Thu 10/22/09	Thu 11/5/09
Caltrans Peer Review	35 days	Thu 11/5/09	Wed 12/23/09
Revision	12 days	Wed 12/23/09	Thu 1/7/10
Caltrans Approval	14 days	Thu 1/7/10	Tue 1/26/10
Approve MND	2 days	Wed 1/27/10	Thu 1/28/10
FONSI	1 day	Thu 1/28/10	Thu 1/28/10



◆ Milestone
▬ Summary
▬ Project Summary
▬ External Tasks
◀ External Milestone
↑ Deadline

Project: Kiernan Schedule.mpp
Date: Fri 12/19/08

ATTACHMENT I
DRAFT COOPERATIVE AGREEMENT

10-STA-99 PM 22.3/22.7
SR 99/Kiernan Rd Interchange Project
EA: 10-0L330K
District Agreement No. 10-312

COOPERATIVE AGREEMENT

THIS AGREEMENT, ENTERED INTO EFFECTIVE ON December 10, 2008,
is between the STATE OF CALIFORNIA, acting by and through its Department of
Transportation, referred to herein as "STATE", and the

COUNTY OF STANISLAUS, a political
subdivision of the State of California, referred to herein
as "COUNTY".

RECITALS

1. STATE and COUNTY, pursuant to Streets and Highways Code sections 114 and 130, are authorized to enter into a Cooperative Agreement for improvements to the State Highway System (SHS) within COUNTY's jurisdiction.
2. COUNTY intends to reconstruct the interchange at State Route (SR) 99/Kiernan Road in and near the City of Salida, in Stanislaus County, referred to herein as "PROJECT"
3. COUNTY is willing to fund one hundred percent (100%) of costs, except that the costs of STATE's Independent Quality Assurance (IQA) of PROJECT Project Approval and Environmental Document (PA&ED) hereinafter referred to as WORK, and STATE's costs incurred as the California Environmental Quality Act (CEQA) Lead Agency and National Environmental Policy Act (NEPA) Lead Agency, if applicable, in the review, comment, and approval of the PROJECT environmental documentation prepared entirely by COUNTY, will be borne by STATE.
4. STATE funds will not be used to finance any of the WORK costs except as set forth in this Agreement.
5. The terms of this Agreement shall supersede any inconsistent terms of any prior Memorandum of Understanding (MOU) or agreement relating to PROJECT.
6. PROJECT Plans, Specifications and Estimates (PS&E), Right of Way (R/W), landscape maintenance and construction will be the subject of a separate future agreement or agreements.
7. This Agreement will define roles and responsibilities of the CEQA Lead Agency and CEQA Responsible Agency regarding environmental documentation, studies, and reports necessary for compliance with CEQA. This Agreement will also define roles and responsibilities for compliance with NEPA, if applicable.
8. The parties now define herein below the terms and conditions under which PROJECT is to be developed and financed.

SECTION I

COUNTY AGREES:

1. To fund one hundred percent (100%) of all WORK costs except for costs of STATE's IQA and STATE's review and approval of the PROJECT environmental documentation for CEQA and NEPA, if applicable.
2. To not use STATE funds for any WORK costs except as set forth in this Agreement.

District Agreement No. 10-312

3. All PROJECT work performed by COUNTY, or performed on COUNTY's behalf, shall be performed in accordance with all State and Federal laws, regulations, policies, procedures, directives and standards that STATE would normally follow. All such PROJECT work shall be submitted to STATE for STATE's review, comment, concurrence, and approval at appropriate stages of development.
4. All PROJECT work, except as set forth in this Agreement, is to be performed by COUNTY. Should COUNTY request that STATE perform any portion of PROJECT work, except as otherwise set forth in this Agreement, COUNTY shall first agree to reimburse STATE for such work pursuant to an amendment to this Agreement or a separate executed Agreement.
5. To have a Project Report (PR) prepared, at no cost to STATE, and to submit to STATE for STATE's review and concurrence at appropriate stages of development. The PR for PROJECT shall be signed on behalf of COUNTY by a Civil Engineer registered in the State of California.
6. Personnel who prepare the preliminary engineering studies and environmental documentation, including investigative studies and technical environmental reports, shall be made available to STATE, at no cost to STATE, through completion of PROJECT construction to discuss problems, which may arise during PS&E, right of way, and construction phases of the PROJECT, and/or to make design revisions for contract change orders.
7. To permit STATE to monitor, participate, and oversee selection of personnel who will prepare the PR, conduct environmental studies and prepare environmental documentation for PROJECT. COUNTY agrees to consider any request by STATE to avoid a contract award or to discontinue services of any personnel considered by STATE to be unqualified on the basis of credentials, professional expertise, failure to perform, and/or other pertinent criteria.
8. To make written application to STATE for necessary encroachment permits authorizing entry of COUNTY onto SHS right of way to perform required WORK as more specifically defined elsewhere in this Agreement. COUNTY shall also require COUNTY's consultants and contractors to make written application to STATE for the same necessary encroachment permits.
9. To be responsible for, and to the STATE's satisfaction, the investigation of potential hazardous material sites within and outside existing SHS right of way that could impact PROJECT as part of performing any work pursuant to this Agreement. If COUNTY discovers hazardous material or contamination within the PROJECT study area during said investigation, COUNTY shall immediately notify STATE.
10. If COUNTY terminates the WORK prior to completion, COUNTY shall also be liable to compensate STATE for all the expenses incurred by STATE with regard to this Agreement.

SECTION II

STATE AGREES:

1. At no cost to COUNTY, to complete STATE's review as CEQA Lead Agency and NEPA Lead Agency, if applicable, of the environmental documentation prepared and submitted by COUNTY and to provide IQA of all COUNTY work necessary for completion of the PR for PROJECT done by COUNTY, including, but not limited to, investigation of potential hazardous material sites undertaken by COUNTY or its designee, and provide prompt reviews, comments, concurrence, and/or approvals as appropriate, of submittals by COUNTY, while cooperating in timely processing of documents necessary for completion of the environmental documentation and PR for PROJECT.
2. Upon proper application by COUNTY and by COUNTY's contractor, to issue, at no cost to COUNTY and COUNTY's contractor, the necessary encroachment permits for required work within the SHS right of way as more specifically defined elsewhere in this Agreement.

SECTION III

IT IS MUTUALLY AGREED:

1. All obligations of STATE under the terms of this Agreement are subject to the appropriation of resources by the Legislature, State Budget Act authority and the allocation of funds by the California Transportation Commission (CTC).
2. The parties to this Agreement understand and agree that STATE's IQA is defined as providing STATE policy and procedural guidance through to completion of the PROJECT PA&ED phase administered by COUNTY. This guidance includes prompt reviews by STATE to assure that all work and products delivered or incorporated into the PROJECT by COUNTY conform with then existing STATE standards. IQA does not include any PROJECT related work deemed necessary to actually develop and deliver the PROJECT, nor does it involve any validation to verify and recheck any work performed by COUNTY and/or its consultants or contractors and no liability will be assignable to STATE, its officers and employees by COUNTY under the terms of this Agreement or by third parties by reason of STATE's IQA activities. All work performed by STATE that is not direct IQA shall be chargeable against PROJECT funds as a service for which STATE will invoice its actual costs and COUNTY will pay or authorize STATE to reimburse itself from then available PROJECT funds pursuant to an amendment to this Agreement authorizing such services to be performed by STATE.
3. The preparation of environmental documentation, including the related investigative studies and technical environmental reports for PROJECT shall be performed in

accordance with all applicable Federal and STATE standards and practices current as of the date of performance.

4. STATE will be the CEQA Lead Agency and COUNTY will be a CEQA Responsible Agency. STATE will be the NEPA Lead Agency, if applicable. COUNTY will assess PROJECT impacts on the environment and COUNTY will prepare the appropriate level of environmental documentation and necessary associated supporting investigative studies and technical environmental reports in order to meet the requirements of CEQA and if applicable, NEPA. COUNTY will submit to STATE all investigative studies and technical environmental reports for STATE's review, comment, and approval. The environmental document and/or categorical exemption/exclusion determination, including the administrative draft, draft, administrative final, and final environmental documentation, as applicable, will require STATE's review, comment, and approval prior to public availability.

If, during preparation of preliminary engineering, preparation of the PS&E, performance of right of way activities, or performance of PROJECT construction, new information is obtained which requires the preparation of additional environmental documentation to comply with CEQA and if applicable, NEPA, this Agreement will be amended to include completion of those additional tasks by COUNTY.

5. COUNTY agrees to obtain, as a PROJECT cost, all necessary PROJECT permits, agreements, and/or approvals from appropriate regulatory agencies, unless the parties agree otherwise in writing. If STATE agrees in writing to obtain said PROJECT permits, agreements, and/or approvals, those said costs shall be a PROJECT cost.
6. COUNTY shall be fully responsible for complying with and implementing any and all environmental commitments set forth in the environmental documentation, permits, agreements, and/or environmental approvals for PROJECT. The costs of said compliance and implementation shall be a PROJECT cost.
7. If there is a legal challenge to the environmental documentation, including supporting investigative studies and/or technical environmental reports, permits, agreements, environmental commitments and/or environmental approval(s) for PROJECT, all legal costs associated with those said legal challenges shall be a PROJECT cost.
8. COUNTY, subject to STATE's prior review and approval, as a PROJECT cost, shall be responsible for preparing, submitting, publicizing and circulating all public notices related to the CEQA environmental process the NEPA, if applicable, environmental process, including, but not limited to, notice(s) of availability of the environmental document and/or determinations and notices of public hearings. Public notices shall comply with all State and Federal laws, regulations, policies and procedures. STATE will work with the appropriate Federal agency to publish notices in the Federal Register, if applicable.

STATE, as a PROJECT cost, shall be responsible for overseeing the planning, scheduling and holding of all public meetings/hearings related to the CEQA environmental process and if applicable, the NEPA environmental process. COUNTY, to the satisfaction of STATE and subject to all of STATE's and FHWA's policies and procedures, shall be responsible for performing the planning, scheduling and details of holding all public meetings/hearings related to the CEQA environmental process and if applicable, the NEPA environmental process. STATE will participate as CEQA Lead Agency and if applicable, the NEPA Lead Agency, in all public meetings/hearings related to the CEQA environmental process and if applicable, the NEPA environmental process, for PROJECT. COUNTY shall provide STATE the opportunity to provide comments on any public meeting/hearing exhibits, handouts or other materials at least ten (10) days prior to any such public meetings/hearings. STATE maintains final editorial control of exhibits, handouts or other materials to be used at public meetings/hearings.

9. In the event COUNTY would like to hold separate and/or additional public meetings/hearings regarding the PROJECT, COUNTY must clarify in any meeting/hearing notices, exhibits, handouts or other materials that STATE is the CEQA Lead Agency and if applicable, the NEPA Lead Agency, and COUNTY is the CEQA Responsible Agency. Such notices, handouts and other materials shall also specify that public comments gathered at such meetings/hearings are not part of the CEQA and if applicable, NEPA, public review process. COUNTY shall provide STATE the opportunity to provide comments on any meeting/hearing exhibits, handouts or other materials at least ten (10) days prior to any such meetings/hearings. STATE maintains final editorial control of exhibits, handouts or other materials to be used at public meetings/hearings solely with respect to text or graphics that could lead to public confusion over CEQA and if applicable, NEPA, related roles and responsibilities.
10. All administrative reports, studies, materials, and documentation, including, but not limited to, all administrative drafts and administrative finals, relied upon, produced, created or utilized for PROJECT will be held in confidence pursuant to Government Code section 6254.5(e). The parties agree that said material will not be distributed, released or shared with any other organization, person or group other than the parties' employees, agents and consultants whose work requires that access without the prior written approval of the party with the authority to authorize said release and except as required or authorized by statute or pursuant to the terms of this Agreement.
11. The party that discovers HM will immediately notify the other party(ies) to this Agreement.

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

HM-2 is defined as 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.

12. STATE, independent of PROJECT, is responsible for any HM-1 found within existing SHS right of way. STATE will undertake HM-1 management activities with minimum impact to PROJECT schedule and will pay all costs for HM-1 management activities.

COUNTY, independent of PROJECT, is responsible for any HM-1 found outside existing SHS right of way. COUNTY will undertake HM-1 management activities with minimum impact to PROJECT schedule and will pay all costs for HM-1 management activities.

13. If HM-2 is found within the limits of PROJECT, the public agency responsible for advertisement, award, and administration (AAA) of the PROJECT construction contract will be responsible for HM-2 management activities.

Any management activity cost related to HM-2 is a PROJECT construction cost.

14. Management activities related to either HM-1 or HM-2 include, without limitation, any necessary manifest requirements and designation of disposal facility.
15. STATE's acquisition or acceptance of title to any property on which any hazardous material is found will proceed in accordance with STATE's policy on such acquisition.
16. Remedial actions proposed by COUNTY on SHS right of way shall be pre-approved by STATE and shall be performed in accordance with STATE's standards and practices and standards and practices mandated by those Federal and State regulatory agencies.
17. A separate Cooperative Agreement or agreements will be required to address and cover responsibilities and funding for PS&E, R/W, landscape maintenance, and the construction phase of PROJECT.
18. Nothing within the provisions of this Agreement is intended to create duties or obligations to or rights in third parties not parties to this Agreement or to affect the legal liability of either party to the Agreement by imposing any standard of care with respect to the development, design, construction, operation, or maintenance of the SHS and public facilities different from the standard of care imposed by law.
19. Neither STATE 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 or arising under this agreement. It is understood and agreed that, COUNTY will fully defend, indemnify, and save harmless STATE and all of its officers and employees from all claims, suits, or actions of every name, kind and description brought forth under, including, 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.

20. 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 STATE under or in connection with any work, authority, or jurisdiction conferred upon STATE or arising under this agreement. It is understood and agreed that, STATE 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, including, 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 STATE under this agreement.
21. Prior to the commencement of any work pursuant to this Agreement, either STATE or COUNTY may terminate this Agreement by written notice to the other party.
22. No alteration or variation of the terms of this Agreement shall be valid unless made by a formal amendment executed by the parties hereto and no oral understanding or agreement not incorporated herein shall be binding on any of the parties hereto.
23. This Agreement shall terminate upon satisfactory completion of all PROJECT obligations of COUNTY and the delivery of required PA&ED PROJECT documents, with concurrence of STATE, or on January 6, 2015, whichever is earlier in time, except that the ownership, operation, maintenance, indemnification, environmental commitments, legal challenges, and claims articles shall remain in effect until terminated or modified, in writing, by mutual agreement. Should any claims arising out of PROJECT be asserted against one of the parties, the parties agree to extend the fixed termination date of this Agreement, until such time as the PROJECT claims are settled, dismissed or paid.

SIGNATURES ON FOLLOWING PAGE:

STATE OF CALIFORNIA
Department of Transportation

COUNTY OF STANISLAUS
1010 Tenth Street
Modesto, CA 95354

WILL KEMPTON
Director

By: Kome Ajise
KOME AJISE
District Director
District 10

By: Jim DeMartini
Jim DeMartini, Vice-Chairman
of the Board of Supervisors

Attest: Christine Ferraro
CHRISTINE FERRARO TALLMAN
Clerk of the Board of Supervisors

Approved as to Form and Procedure

Approved as to Content

Lenise Zuniga
Attorney
Department of Transportation

By: Matt Machado
MATT MACHADO
Director of Public Works

Certified as to State Funds

Approved as to Form
John P. Doering,
County Counsel

Anne Wells
ANNE WELLS
District 10 Budget Manager

By: Thomas E. Boze
THOMAS E. BOZE
Deputy County Counsel

Certified as to Financial Terms and Conditions

Shelley Mizman
Accounting Administrator