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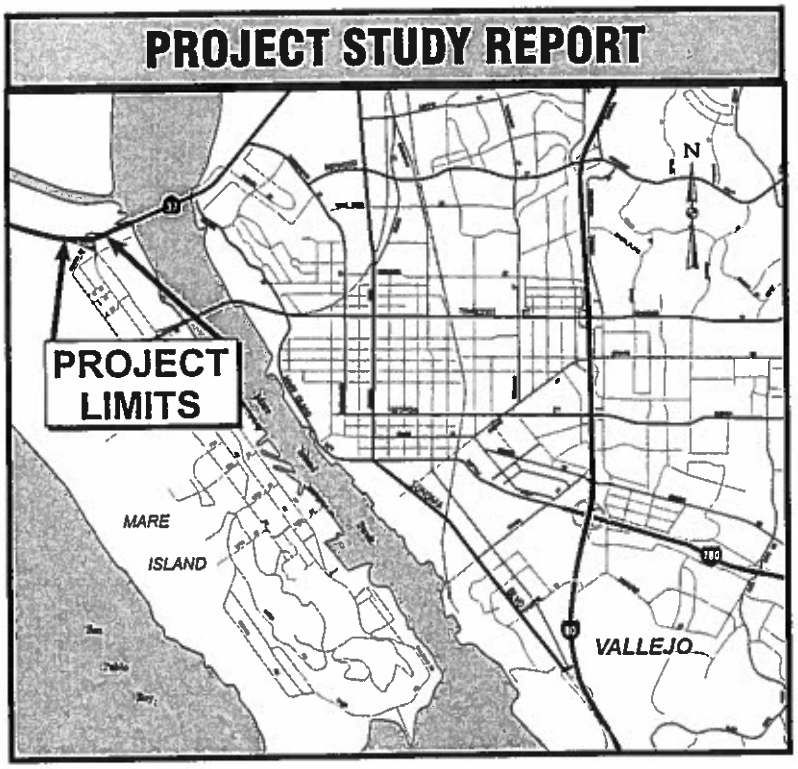
PROJECT STUDY REPORT



IN SOLANO COUNTY IN VALLEJO ON ROUTE 37
FROM 0.4 km WEST OF WALNUT AVENUE OVERCROSSING
TO 1.0 km EAST OF WALNUT AVENUE OVERCROSSING

APPROVAL RECOMMENDED

_____ _____

Raymond Pang
Project Manager

Date

APPROVED BY:

_____ _____

H. P. Hensley
Chief Deputy District Director

Date

Korve Engineering

TABLE OF CONTENTS

PROJECT STUDY REPORT

1. INTRODUCTION

This Project Study Report (PSR) is for a proposed modification to the existing State Route 37/Mare Island Interchange in the City of Vallejo in Solano County. The project will revise the ramp termini and their connection to the Walnut Street Overcrossing to properly align the interchange with the proposed internal roadway system on Mare Island. This PSR is being undertaken in anticipation of the buildout of Mare Island following its closure as a military facility. The intent of the PSR is to advance the project to the Project Report stage that will assess alternatives, analyze environmental impacts and determine construction costs and address the issue of funding of capital cost.

Two alternatives have been investigated, including a no-build option. An alternative concept of moving the entire interchange to a new site west of the present location has been rejected due to overwhelming environmental impacts. The remaining alternative involves modifications to one portion of the interchange:

- Modifications to the southern end of the Walnut Street Overcrossing to facilitate alignment with a proposed revision in on-island circulation

A breakdown of the costs associated with this improvement is included in the appendix.

Construction of Alternative 2 is proposed to commence in 2001 or 2002. Anticipated sources of funding are being investigated at this time by the City of Vallejo. The City has obtained an Economic Development Administration (EDA) grant for a portion of the design costs for the on-site roadway system and SR 37 interchange improvements and associated local utilities. It is evaluating if construction funding should also be pursued through EDA.

Solano Transportation Authority (STA) is the funding authority for State and Federal highway funds for this project. The project is sponsored by the City of Vallejo. Caltrans role is project oversight and upon approval of the project, a Cooperative Agreement will be executed between the City and STATE for providing design oversight. As part of the Metropolitan Transportation Commission (MTC) 2001 update of the Regional Transportation Plan (RTP), the City of Vallejo has been working with STA to include the project in the RTP. At this point, STA plans to include the project in the RTP update under the new general category of "local interchanges and arterials".

2. RECOMMENDATION

It is recommended to approve this Project Study Report and to proceed to the Draft Project Report and Environmental Studies.

3. BACKGROUND

The current State Route 37/Mare Island Interchange consists of a non-standard design (as discussed below) which provides access from both directions of travel on SR 37 to a one-way couplet on Mare Island consisting of Railroad Avenue and Walnut Avenue to the south. The interchange was designed to accommodate traffic to and from Mare Island when the facility was a naval base, and when SR 37 was an undivided two-lane conventional highway from SR 29 to SR 121. The interchange includes an entrance gate to the island just south of the Caltrans right-of-way that was created for security purposes and to monitor traffic into and out of the naval base. The monitoring function and its traffic-inhibiting features are not needed for the civilian uses being planned for Mare Island following its closure as a naval base.

3.1 R/W and Utility Impacts

The project will be built within STATE R/W with the exception of the ramp intersection at the south end of the construction limit. There the City of Vallejo will transfer property to the STATE to move the R/W further south. There are no major utility impacts from the proposed construction.

3.2 Non Standard Design

The interchange is a combination of ramps and local roads to serve the military needs of the base, specifically to allow civilian traffic that was denied access a way back to SR 37. The existing ramps impacted by the proposed modifications are part local roads and part freeway ramps. Therefore, they do not meet the advisory standards for superelevation transition and two thirds/one third superelevation runoff nor the mandatory standards for superelevation rates. The Walnut Street Overcrossing is a local road overcrossing with intersections at either end.

At the present time, SR 37 carries four lanes of traffic on the Napa River Bridge to a point approximately 0.9 kilometer west of Mare Island. East and west of this four lane segment, SR 37 is a two-lane conventional highway with a recently installed median safety barrier to the west to near the intersection of SR 121. A project is currently underway (04-Sol-37-KP R12.9/16.9, EA04268-0T1411, 0T1421) to convert to freeway from the east end of the Napa River Bridge to a point west of Fairgrounds Drive; this project will complete a freeway connection between Mare Island and I-80.

3.3 System Planning

A number of studies have been completed in the vicinity of this project. Caltrans completed, in 1998, a FEIS on the freeway section between the Napa River Bridge and Diablo Street in Vallejo as described above. Also in 1997, Fehr and Peers prepared the Mare Island Transportation Plan, intended to describe the on-island roadway requirements associated with reuse of the Mare Island Naval Shipyard. The Fehr & Peers technical material was also used as the basis for a number of reports on the reuse of the Shipyard, including the *Mare Island Utilities, Operations, Maintenance and Capital Improvement Plan* by Reimer Associates (1997) and the *Mare Island Naval Shipyard Disposal and Reuse Draft EIS/EIR* by U.S. Department of the Navy, 1995.

Korve Engineering, under the sponsorship of the Metropolitan Transportation Commission (MTC) prepared a Major Investment Study (MIS) titled the "North Bay Corridor Study" in 1998. It analyzed transportation needs on SR 37 between Mare Island and SR 121 in Sonoma County. A major purpose of the study was to gain consensus on a strategy for potential future widening of the highway within the significant environmental constraints in the corridor. The study concluded that widening the highway to four lanes would be required sometime within the 20 year analysis period. It also developed a mitigation framework to deal with the environmental issues. While the report was accepted by MTC, a widening project is not currently programmed.

The stimulus for the current study is a parallel study being conducted for the City of Vallejo by Korve Engineering, Inc. The Mare Island Access Study is investigating a wide range of transportation infrastructure requirements and issues revolving around the proposed development of Mare Island for civilian use. Among the options investigated were improvements to the SR 37/Mare Island Interchange, alternative operational strategies for the Mare Island Causeway, the need for an additional strait/river crossing, the preferred location for the Vallejo Ferry terminal, the selection of a site for a downtown Vallejo transit terminal, and the proper alignment and configuration of Mare Island Way between Tennessee Street and Curtola Parkway. The technical analysis developed for the Mare Island Access Study is the basis of the analysis contained in this PSR, one significant difference being that the travel forecasting for the Access Study uses a target year of 2020, while the forecasts for this PSR extend these results to a target year of 2025.

4. NEED AND PURPOSE

The primary need and purpose of this project are to accommodate the increased levels of development on Mare Island and to revise the interchange so that safe and efficient traffic flow will result for the revised street system being proposed on the island. The interchange was originally designed to accommodate traffic to and from Mare Island when the facility was a naval base, and when SR 37 was an undivided two-lane conventional highway from SR 29 to SR 121. Also, the existing interchange includes an entrance gate to the island just

south of Caltrans right-of-way created to monitor traffic into and out of the naval base. The monitoring function and its traffic-inhibiting features are not needed for the civilian uses being planned for Mare Island following its closure as a naval base. Therefore, the current design of the overcrossing, if unchanged, would result in a non-standard alignment and transition into the proposed internal roadway network on the island.

4.1 Traffic and Accident Data

Beginning approximately 400 meters west of the interchange and proceeding east as far as SR29, State Route 37 provides for two lanes of traffic in each direction on a freeway when Calltrans' completes the programmed improvement. West of Mare Island, the roadway is narrowed to one lane in each direction and operates as an expressway. East of the Napa River Bridge, the facility is currently a four-lane conventional highway, but a project is underway to upgrade it to freeway status. Traffic Counts in 1999 are listed in Table 1.

Table 1
Existing Traffic Volumes (1999)

Location	Average Weekday	AM Peak Hour	PM Peak Hour
SR 37 east of Mare Island Interchange - Eastbound	15,000	918	1,524
SR 37 east of Mare Island Interchange - Westbound	14,875	1,515	870
SR 37 east of Mare Island Interchange - Total	29,875	2,433	2,394
Eastbound On-Ramp	673	35	130
Eastbound Off-Ramp	305	54	15
Westbound On-Ramp	206	11	36
Westbound Off-Ramp	654	145	13

Source: Caltrans, 1999

Table 2 summarizes the accident history for the interchange and for the segments of SR 37 on either side of the interchange. The history for the interchange over the 3 year period

1998 - 2000 shows a lower overall average than the average accident rate for similar facilities based on the TASAS Table B Selective Accident Rate Calculation. The low number of accidents is largely due to the low traffic volumes. Safety is not considered to be an issue for the existing interchange design, even though it no longer meets Caltrans Highway Design Manual, Fifth Edition design standards . Previous work on the SR 37 MIS indicates that for the three years prior to placing the SR 37 barrier there was one fatality. For the three years after the barrier was placed there were no fatalities.

Table 2
State Route 37/Mare Island Interchange
Accident History 1998-2000

	Accidents			Accident Rate			Statewide Average Rate for Similar Facilities		
	Total	Fatal	Fat+Inj	Total	Fatal	Fat+Inj	Total	Fatal	Fat+Inj
Eastbound On-Ramp from Mare Island	0	0	0	0.10	0.000	0.000	1.00	0.000	0.370
Eastbound Off-Ramp to Mare Island	0	0	0	0.00	0.000	0.000	0.80	0.000	0.280
Westbound Off-Ramp to Mare Island	0	0	0	0.10	0.000	0.000	0.80	0.000	0.280
Westbound On-Ramp from Mare Island	0	0	0	0.00	0.000	0.000	1.00	0.000	0.370
SR 37 West of Mare Island (MP 3.9 to MP 7.212)	2	0	0	0.20	0.000	0.080	0.90	0.030	0.440
SR 37 West at Mare Island (MP 7.080 to MP 8.330)	3	0	1	0.70	0.000	0.330	0.90	0.100	0.360
SR 37 East of Mare Island (MP 7.213 to MP 11.727)	36	0	15	1.60	0.000	0.700	1.70	0.160	0.660

Note: 1) Source - TASAS Table B District 4 - Selective Accident Rate Calculation

Note: 2) Above State average for similar facility

The major need for improvement is not based on existing volumes, but rather on projected future volumes as well as the need to revise the geometry at the southern end of the overcrossing. Forecasts of traffic for the future buildout of Mare Island indicate that projected volumes would approach the capacity limits of the interchange. Table 3 documents the projections of traffic for 2025 and an estimate of Service Level for each ramp.

Table 3
SR 37/Mare Island Interchange
2025 Traffic Forecasts and Service Level Analysis
Existing Interchange Geometry

Location	Alternative[1]	Volume		Lanes		Density[2] (pc/mi/ln)	LOS[3] (PM Pk Hr)
		Fwy	Ramp	Fwy	Ramp		
SR 37 Westbound On-Ramp	2-AM	1903	86	2	1	22	C
	2-PM	1409	203	2	1	18	B
	12-AM	1880	94	2	1	22	C
	12-PM	1400	226	2	1	19	B
Walnut Avenue On-Ramp	2-AM	1568	203	2	1	21	C
	2-PM	1022	86	2	1	15	B
	12-AM	1907	226	2	1	25	C
	12-PM	1281	94	2	1	17	B
SR 37 Westbound Off-Ramp	2-AM	3471	1568	2	1	35	D
	2-PM	2431	1022	2	1	24	C
	12-AM	3787	1907	2	1	38	F
	12-PM	2681	1281	2	1	27	C
Railroad Avenue Off-Ramp	2-AM	1108	86	2	1	14	B
	2-PM	1771	203	2	1	20	C
	12-AM	1375	94	2	1	17	B
	12-PM	2134	226	2	1	24	C
SR 37 Eastbound On-Ramp	2-AM	1409	1022	2	1	23	C
	2-PM	1903	1568	2	1	32	D
	12-AM	1400	1281	2	1	25	C
	12-PM	1880	1907	2	1	35	D

Notes: (1) Alternatives from Mare Island Access Study. Alternative 2 is basic land use and circulation concept; Alterative 12 is identical to Alternative 2 in all aspects, except that an additional 700,000 SF office/warehouse use potential is proposed on Mare Island .

(2) Density computed from Highway Capacity Software

(3) LOS = Level of Service as computed from Highway Capacity Software

As part of the Mare Island Access Study, which is the foundation for the technical material contained in this PSR, a total of 14 Island alternatives were evaluated. The alternatives comprised a combination of circulation concepts and land use intensity proposals. The Mare Island Access Study eventually settled on a single circulation concept, with two possible land use scenarios. The "basic" land use and circulation concept is contained in Circulation/Land Use Alternative #2, while Alternative #12 defined the highest likely land use alternative. Data for both Alternative 2 and 12 are included in Table 3; and the results are further discussed below.

4.2 Summary of Travel Forecasting Methodology

This section is intended to summarize the process and results of the traffic forecasting process for the proposed improvements to the SR 37/Mare Island interchange. The text provides a summary of the documentation of the model, including all major assumptions. A more complete documentation of the model and the forecasting results has been delivered to the City of Vallejo Department of Public Works.

The forecasts for the SR 37/Mare Island interchange have been prepared for the year 2025, in accordance with Caltrans requests. The formal model prepared for the City of Vallejo projects to the year 2020, as that year is the common one for all Bay Area land use and travel forecasting. An extrapolation to the year 2025 has been prepared for this memorandum, and the assumptions behind the extrapolation are also documented.

This PSR is being prepared in concert with a proposal to implement the Mare Island Reuse Plan. The plan has been developed independently of the current ABAG forecasts. Upon completion of the EIR for the reuse plan (to be completed in 2001), it is proposed that the City of Vallejo transfer to MTC the contents of the proposed plan.

Travel forecasts for the PSR were made with a land use data set developed specifically for the Mare Island Access Study recently completed by Korve Engineering. In that study, the land use for Solano County as a whole is similar to ABAG projections. However, the land use within Solano County has been redistributed so that the impacts of the full buildout of Mare Island can be estimated.

The land use contained in the basis of the forecast was developed in concert with staff of the City of Vallejo, and the City is completely supportive of the land use projections for Mare Island. With respect to project approval, the land use quantities included in the model have all been approved by the City as part of their approval of the Reuse plan with one exception. The development firm "Legacy Partners" has only preliminary approval for some 700,000 square feet of office development; they are permitted to proceed with planning on the basis that the additional 700,000 SF might be approved, but final approval has not yet been given. The traffic forecasts for the PSR include the 700,000 SF to account for the likely worst case scenario

4.2.1 City of Vallejo Travel Forecasting Model - Basic Assumptions and Methodology

A new travel forecasting model has been prepared for the City of Vallejo in support of the Mare Island Access Study; the model has been prepared to cover all of Vallejo at a similar level of detail so that the model can be used for other future travel forecasting needs.

The model operates with the new TP Plus software suite. TP Plus is the successor to MINUTP, and contains a number of important enhancements. Most important for this model, it allows a much larger case size to be processed than did MINUTP, meaning that larger areas and higher levels of detail are possible.

This model forecasts PM peak hour vehicle traffic directly, beginning with the trip generation module and continuing on through assignment. It is a traditional three-step model with trip generation, trip distribution and trip assignment. Because the model forecasts vehicle trips directly, there is no modal choice element.

The geographical area covered by the model is the entire nine county bay area. The area is covered at various levels of detail in proportion to the distance from Vallejo. Within Vallejo, the model uses essentially the same zonal structure as was used for a model prepared for the City by the traffic firm of TJKM in 1989; Mare Island, represented by a single zone in the 1989 model, has been significantly stratified. There are 159 zones on the "mainland" in Vallejo and 55 zones on Mare Island. Outside of Vallejo in Solano County, the model uses the zone system and network of the model of the Solano Transportation Authority. In Napa County, the model uses the zone system and network of the Napa County Transportation Planning Agency. In the remainder of the bay area, the Metropolitan Transportation Commission's 1120 zone system and network have been used. All of the network data from these different sources have been combined into a single highway network, and land use or travel data from these sources have likewise been adopted to the zone system used for Vallejo. All zones from all contributing models are used in a one-to-one relationship - there has been no zonal compression.

The model contains the four fundamental trip purposes used in most models of this type, but because it forecasts PM peak hour traffic directly, it actually produces seven internal trip tables and two external trip tables. These trip purposes are as follows:

- Home-work
- Work-Home
- Home-shop
- Shop-home
- Home-Other

- Other-Home
- Non-Home-Based
- Internal-External
- External-Internal

The trip generation rates included in the travel forecasting model were initially based on ITE trip Generation Rates. They were modified, and in most cases reduced, during the calibration process. PM Peak hour trip generation rates have been established and calibrated for each contributing area of the model. Within the City of Vallejo, a difference was observed in the generation rates associated with different parts of the city. This is a factor that is usually related to income level. As income data was not readily available for the area, a decision was taken to divide the city into higher and lower generation rate areas. The trip generation rates used in the City of Vallejo are documented in Tables A-1 and A-2. All of Mare Island is included in the higher generation rate area.

Table A-1
City of Vallejo Trip Generation Rates - Higher Income Areas

Land Use Type	Home-Work Origin Rate	Work-Home Destination Rate	Home-Shop Origin Rate	Shop-Home Destination Rate	Home-Other Origin Rate	Other-Home Destination Rate	Non-Home-Based Origin & Destination Rate	Total
SFDU	0.0972	0.1773	0.1098	0.2097	0.0423	0.0657	0.2025[1]	0.9045
Multiple Family Dwellings	0.0522	0.1044	0.0594	0.1242	0.0225	0.0387	0.117[1]	0.5184
Hotels, etc. (1,000 Sq. Ft)	0.1926	0.1503	0.2169	0.1782	0.0837	0.0549	0.2412[1]	1.1178
Retail[2]	0.3759	0.6318	0.6370	1.3732	0.1932	0.3133	0.8563	4.3783
Service	0.1665	0.2097	0.2790	0.4536	0.0855	0.1035	0.3186	1.6164
Office[2]	0.1350	0.7950			0.0719	0.3921	0.7841	2.1781
Governmental	0.2673	0.1071			0.1368	0.0531	0.3186	0.8829
Elementary School	0.0041	0.0070			0.0021	0.0034	0.0092	0.0257
Jr High School	0.0059	0.0111			0.0030	0.0055	0.0143	0.0398
High School	0.0117	0.0261			0.0061	0.0126	0.0324	0.0889
Industrial	0.0081	0.0756			0.0042	0.0369	0.0702	0.1950
Warehousing	0.0477	0.0981			0.0243	0.0495	0.1242	0.3438
Church	0.3683	0.2169			0.0198	0.1071	0.2142	0.9263
Auto Sales	0.2165	0.3639	0.3636	0.7911	0.1116	0.1800	0.4932	2.5199
GasStation	7.5006	12.6000	19.8000	19.8000	3.8520	6.2550	17.0820	86.8896
Commercial/Recreational	0.1467	0.2457	0.2457	0.5346	0.0756	0.1224	0.3339	1.7046
Hospital	0.5134	0.3024			0.2736	0.1494	0.2981	1.5368
Marina					0.9000	1.8000	1.8000	4.5000

Notes: (1) Control Rate used for pre-balancing computation
(2) Average Rate - Model Trip Generation Uses non-linear equation.

Table A-2
City of Vallejo Trip Generation Rates - Lower Income Areas

Land Use Type	Home-Work Origin Rate	Work-Home Destination Rate	Home-Shop Origin Rate	Shop-Home Destination Rate	Home-Other Origin Rate	Other-Home Destination Rate	Non-Home-Based Origin & Destination Rate	Total
SFDU	0.0756	0.1379	0.0793	0.15145	0.03055	0.04745[1]	0.14625	0.6685
Multiple Family Dwellings	0.0406	0.0812	0.0429	0.0897	0.01625	0.02795[1]	0.0845	0.3831
Hotels, etc. (1,000 Sq. Ft)	0.1498	0.1169	0.15665	0.1287	0.06045	0.03965[1]	0.1742	0.82635
Retail[2]	0.2924	0.4914	0.4601	0.9918	0.1395	0.2263	0.6184	3.1638
Service	0.1295	0.1631	0.2015	0.3276	0.0618	0.0748	0.2301	1.1883
Office[2]	0.1050	0.6184			0.0559	0.3049	0.6099	1.6941
Governmental	0.2079	0.0833			0.0988	0.0384	0.2301	0.6585
Elementary School	0.0032	0.0054			0.0015	0.0024	0.0066	0.0191
Jr High School	0.0046	0.0087			0.0022	0.0040	0.0104	0.0297
High School	0.0091	0.0203			0.0044	0.0091	0.0234	0.0663
Industrial	0.0063	0.0588			0.0030	0.0267	0.0507	0.1455
Warehousing	0.0371	0.0763			0.0176	0.0358	0.0897	0.2564
Church	0.2864	0.1687			0.0143	0.0774	0.1547	0.7015
Auto Sales	0.1684	0.2830	0.2626	0.5714	0.0806	0.1300	0.3562	1.8522
Gas Station	5.8338	9.8000	14.3000	14.3000	2.7820	4.5175	12.3370	63.8703
Commercial/Recreational	0.1141	0.1911	0.1775	0.3861	0.0546	0.0884	0.2412	1.2529
Hospital	0.3993	0.2352			0.1976	0.1079	0.2153	1.1553
Marina					0.6500	1.3000	1.3000	3.2500

Notes: (1) Control Rate used for pre-balancing computation
(2) Average Rate - Model Trip Generation Uses non-linear equation.

The model uses the traditional gravity model to perform its trip distribution function. The highway assignment is based on the "incremental" assignment methodology. (While equilibrium assignment has become more popular in recent years, the experience of the model development team is that it does not perform well in highly congested conditions as are expected to occur in much of the Bay Area by the year 2020.)

The model includes a post-processor that performs three tasks:

1) Calibration error correction. Each link in the Vallejo portion of the model carries information on observed PM peak hour traffic in 1999 as well as the calibrated model volume for that year. A computation is performed in the post-processor that removes the calibration error from the final target year forecast.

2) The post processor also contains a level of service computation based on capacities and service level standards that is based on the Florida Level of Service Standards[1].

3) The model produces a file of link-specific growth factors that can be imported directly into the TRAFFIX program for intersection level of service computations. Approximately 30 intersections, city-wide, are evaluated as part of the forecasting process.

The model has been calibrated on 1999 traffic count data, supplemented by recent data from Caltrans on all State Highways.

4.2.3 Assumptions of the Extrapolation of the 2020 Forecasts to the Year 2025

An investigation was made of projected population projections for the years 2020 and 2025 by the State of California for Solano, Marin and Sonoma Counties. Table 4 documents these data, including estimates of growth from 2020 to 2025. On the basis of this data, a decision was taken to increase the through traffic estimate on SR 37 by 5% over the 2020 forecast.

Table 4
Estimate of Growth Factors - 2020 to 2025
Solano, Marin and Sonoma County
Based on State Department of Finance Population Projections

PLACE	YEAR	TOTAL	WHITE	HISPANIC	ASIAN	BLACK	INDIAN
MARIN	1990	230155	194728	18103	9111	7552	661
MARIN	2000	248397	196478	29722	13059	8521	617
MARIN	2010	258569	194039	36415	17769	9728	618
MARIN	2020	268630	191532	44306	21275	10924	593.
MARIN	2025	275754	191248	49291	23242	11396	577
SOLANO	1990	344116	209752	46217	41216	44457	2474
SOLANO	2000	399841	222234	60650	58775	55478	2704
SOLANO	2010	479136	244353	80791	82785	68124	3083
SOLANO	2020	552105	262147	103040	102297	81259	3362
SOLANO	2025	589271	269226	116199	113114	87247	3485
SONOMA	1990	390225	329156	41758	10354	5288	3669
SONOMA	2000	459258	370549	61043	16448	6980	4238
SONOMA	2010	544513	418331	86674	25890	8723	4895
SONOMA	2020	614173	446992	117719	33475	10523	5464
SONOMA	2025	649741	458329	136731	37619	11335	5727

Growth Factors - 2020 to 2025	
Solano	1.067
Marin	1.026
Sonoma	1.058
Sonoma+ Mar in	1.048
Average of All	1.056

Suggest Use of 5% Growth in Through Traffic

Florida's Level of Service Standards and Guidelines Manual for Planning, Florida Department of Transportation, August 4, 1995.

Data was also derived from existing Caltrans freeway counts to derive the AM peak hour volumes. Table 5 documents the factors derived from this analysis. These factors are applied only to the through traffic on SR 37. As a conservative estimate, traffic to and from Mare Island in the AM peak hour is assumed to be a mirror of the PM peak hour, with the same traffic volumes moving in opposite directions.

Table 5

Derivation of AM Peak Hour Factors for SR 37

Data from June, 1999

Caltrans Traffic Counts at Mare Island Gate Station						
Eastbound		6-7AM	7-8AM	8-9AM	4-5PM	5-6PM
Average		564	857	923	1541	1473
Peak				923	1541	
Caltrans Traffic Counts at Mare Island Gate Station						
Westbound		6-7AM	7-8AM	8-9AM	4-5PM	5-6PM
Average		745	1513	1487	895	671
Peak			1513		895	
Factor to Apply to Opposite Direction						
Apply to PM EB Traffic to get WB AM				0.98		
Apply to PM WB Traffic to get EB AM				1.03		

Conclusion: AM is essentially mirror image of PM in 1999

4.2.4 Results of the 2025 Forecast in the Vicinity of SR 37/Mare Island Interchange

These forecasts were taken from the 12th of 14 alternatives that were produced as part of the Mare Island Access Study. The volumes represent the highest likely volumes at the interchange from among the various alternatives. As part of the Access Study, two model runs will be made that include a new bridge between the mainland and Mare Island; this so-called "southern crossing" will be located somewhere between Solano and Chestnut Avenues on the Mainland. Some reduction in the volumes at the SR 37/Mare Island Interchange will result if a southern crossing is constructed.

4.2.6 Comparison with Metropolitan Transportation Commission Modeling Procedures

The travel forecasting model prepared for the City of Vallejo uses some assumptions from the Metropolitan Transportation Commission (MTC) modeling system, but it also differs in several significant ways. Among the common features are:

- Use of the nine county Bay Area as the modeling framework.
- Use of the MTC zone system and network in Sonoma, Marin, San Francisco, San Mateo, Santa Clara, Alameda and Contra Costa Counties

- Use of ABAG land use forecasts for the above seven counties, and use of control totals for the county as a whole in Solano County
- Use of MTC control totals for the gateways to the Bay Area

The City of Vallejo model differs from MTC methodology in the following ways:

- The City of Vallejo model forecasts PM peak hour traffic directly, whereas the MTC model produces estimates of Average Daily Traffic, and then produces its major estimates for the AM peak hour. Estimates for this PSR for the AM peak hour were derived, as described above, by applying factors to the PM peak hour forecast.
- The MTC model uses a different allocation of land use within Solano County than was used for the Mare Island Access Study. The Access Study used ABAG control totals, but reallocated the land use within the county in part to reflect insight on expected market conditions and in part to reflect the higher proposed intensity of development on Mare Island.
- The MTC model includes a series of feedback loops that attempt to mirror the impacts of congestion on trip distribution. The City of Vallejo model does not include a feedback mechanism.
- The MTC model is calibrated throughout the Bay Area. The City of Vallejo model is calibrated only within the City, and the immediate major gateways to the City.

For these reasons, the estimates produced by these two models may differ. The Vallejo model is believed by the consultant to produce realistic estimates for the area in and immediately surrounding the City of Vallejo.

4.3 SR 37 Corridor – Interstate 80 to the Mare Island Interchange

Future traffic volumes for the segment of State Route 37 from Interstate 80 to Mare Island have been reviewed to determine if this section of highway can deliver sufficient traffic volumes to the proposed improved interchange at the Mare Island entrance. A number of different sources of information exist for this section of roadway, an appropriate source for this particular review is the traffic analysis conducted for the Mare Island Reuse Plan's Environmental Impact Report/Environmental Impact Statement (EIR/EIS). This work forecasted future traffic volumes for this section of SR 37 in the year 2020 both with and without traffic volumes associated with new development on Mare Island. It should be noted that the volumes presented in the EIS/EIR assume the future completion of the SR 37/SR 29 interchange and associated improvements. The project's EIS/EIR, using development densities approved by the City at the time of the EIR/EIS, found that adequate future capacity will exist on the section of SR 37 from I-80 to Mare Island to accommodate traffic forecast to be generated by the proposed Mare Island development project. Although volumes will approach capacity on the section from I-80 to Broadway, SR 37 will be able to deliver forecast traffic volumes to the proposed development on Mare Island.

The following table, Table 6, shows LOS for various locations along SR 37 east of Mare Island and one on I-80 south of SR 37. Table 6 is an update of the above mentioned EIR/EIS and reflects the current proposed densities for Mare Island and updated data from Solano Transportation Authority model, City of Vallejo model, and other area models.

Table 6

Estimated 2025 Freeway Volumes and Service Levels assuming Mare Island Development	AM		PM	
Location	EB	WB	EB	WB
SR 37 East of Mare Island to Wilson Ave				
Volume	2681	3787	3787	2681
Level of Service	C	E	E	C
Wilson Ave. to SR 29				
Volume	2114	3112	3112	2114
Level of Service	B	D	D	B
SR 29 to Fairground Drive				
Volume	3621	4095	4095	3621
Level of Service	D	F	F	D
Fairground Drive to I-80				
Volume	4765	5142	5142	4765
Level of Service	D	D	D	D

Although ramp traffic data has not been included, the model used to generate Table 6 shows that the ramps serving SR 37 have the capacity to deliver the mainline volumes at LOS D or better. The model indicates that in the year 2025, westbound SR 37 west of Fairground Drive will carry approximately 4,100 morning peak hour vehicles (capacity). West of SR 29 the model forecasts approximately 3,800 westbound vehicles in the morning peak hour, which represents LOS E. Therefore, the capacity constrained section of SR 37 between Fairground and SR 29 will not impede the ability of SR 37 to deliver projected traffic volumes to the Mare Island interchange

A review of data used in the model indicates that growth is occurring throughout Solano and Marin Counties and along the length of I-80. This regional growth is contributing to the higher volumes in the SR 37 corridor.

4.4 Ramp Movement with Existing Geometry and Future Traffic Volumes

The existing interchange ramps to and from Mare Island (west bound off, east bound off, and east bound on) are all controlled by stop signs and a guard shack. Any vehicle entering or exiting the interchange from these ramps must stop. The potential queue length at the northern Mare Island gate at the SR 37 interchange has been evaluated with existing geometry and future, year 2025 traffic volumes. Incorporated into this analysis are future traffic volumes developed for the Mare Island roadway project's Draft Project Study Report of October 2000, and the existing roadway geometry that consists of a one-lane monitored gate.

With one inbound lane and assuming a processing rate of fifteen seconds per vehicle, the gate can process approximately 240 vehicles per hour. In the morning peak hour approximately 2,210 vehicles are projected to enter the island at this point in the year 2020, thus, a queue of approximately 1,970 vehicles would result at the end of this hypothetical hour. However, the maximum queue would likely extend well beyond 1,970 vehicles because the gate's capacity would be exceeded in the hours immediately preceding and following the morning peak hour. The probable maximum queue length has not been evaluated, because the calculation would not have meaning. At 25 feet per vehicle, a queue of 1,970 vehicles would extend for 49,250 feet or approximately nine miles. Based on the projected traffic split, a 1.5-mile long queue would be expected on SR 37 to the west and a queue of 7.5 miles would be expected on SR 37 to the east. Table 7 presents a summary of the anticipated Levels of Service at the SR 37 interchange and gate under this scenario.

Table 7

Mare Island, SR 37 Entrance Gate Operation

Existing Geometry and Year 2025 Traffic Volumes

Facility	AM Peak Hour Volume/ Capacity	AM Peak Hour Level of Service	PM Peak Hour Volume/ Capacity	PM Peak Hour Level of Service
SR 37 Gate	2,210/240	F	2,250/900	F
SR 37 Westbound Off-Ramp	1,410/1,300	F		
SR 37 Westbound On-Ramp			825/1,050	C
SR 37 Eastbound Off-Ramp	800/1,050	C		
SR 37 Eastbound On-Ramp			1,425/1,600	D

5. ALTERNATIVES

Two alternatives were developed for the SR 37/Mare Island Interchange. The no-build alternative would make no changes to the interchange, and the projected problems would not be solved. The proposed project, described in detail below in Alternative 2, would improve the interchange traffic operations. Other alternatives were considered

including moving the interchange some distance to the west. These alternatives were not developed due to overwhelming environmental impacts; the alternative sites are both a wetlands area and a mitigation area for the ongoing project to complete the SR 37 freeway segment between I-80 and Mare Island.

5.1 Alternative 1 - No-Build Alternative

The No-Build Alternative, shown in Attachment A, consists of leaving the interchange as is. The current geometry of the entrance onto Mare Island provides for posted speeds between 10 and 15 mph since the intent of the original design was to stop traffic before entering or exiting the island. Further, the east-bound on-ramp maintains a nonstandard acceleration length onto State Route 37. This option also will constrain the proposed on-island intersection to conform to the existing roadway width and alignment. With this alternative, the service level would be expected to develop as documented in Table 3 above. Level of Service for the No-build Alternative varies between B and E. Details if year 2025 locations and times can be found in Table 3.

5.2 Alternative 2

Modifications would be made to the southern end of the existing overcrossing to improve the geometrical alignment of access to the proposed on-island revised street system. This would include realigning the east-bound on-ramp to State Route 37 with an increased curvature of 74 meter radius and a widening of the ramp. Also, the existing Walnut Street Overcrossing roadway connection from the east-bound off-ramp to the west-bound on-ramp would be eliminated, streamlining all turning movements into the proposed new intersection at Railroad Avenue and Cedar Street. Modifications and a minor realignment would also be made to the east bound off ramp providing a 203 meter radius and a widening of the ramp. Attachment B documents this proposal. No capacity enhancements are involved with this concept.

5.3 Materials

The new ramp sections will be a uniform thickness for both the shoulders and the traveled way. Assumed pavement section thicknesses are 0.16 meter of AC, 0.08 meter ATPB, and 0.45 meter AB. A Materials Report will be prepared for the Project Report phase of this project, but the above section would be adequate for an approximate R-value of 5 to 10 and a TI of 9.5 to 10.

5.4 Pedestrian Access

The existing Walnut Street Overcrossing has a sidewalk on the west side of the structure with stairs at either end to reach ground level. Navy personnel used the sidewalk to access military housing on the north side of SR 37 from the Navy shipyard on south side of SR 37. There are paths that cross the connecting freeway ramp roadways, which pedestrians used to reach local streets from the stairs. The pedestrian path to the local roadway system on the south crosses the eastbound off ramp at the first intersection, which is being closed by the project to improve vehicle traffic flow and vehicle safety.

On the north side Caltrans is building a Class 1 bike path to the stairs from a new bird viewing area, which it is constructing as part of a mitigation project. However, the mitigation project does not provide access to westbound SR 37, which is desired by Caltrans.

There is also an existing sidewalk on the south side of the Napa River Bridge that has no defined connecting path. The project will construct a connecting pathway from the bridge to the Railroad Avenue/Cedar Street Intersection with a paved sidewalk adjacent to the outside shoulder.

The project proposes to close off the stairs, since the original purpose no longer exists and the ramp crossings pose a safety hazard to pedestrians. Pedestrian access will no longer be provided over the overcrossing. The project will provide new pedestrian access between the north and south sides of SR 37 around the west abutment of the Napa River Bridge, provided there are no adverse environmental impacts associated with the pathway. The pathway will be a continuation of the pathway to the sidewalk on the south side of the Napa River Bridge. It will diverge to the right at the abutment and follow along the foot of the Napa River Bridge embankment, then cross beneath SR 37 under the first span of the bridge and connect to the proposed pedestrian path on the north side. The pedestrian path will be constructed of decomposed granite, which is the material being used for the mitigation project pathways.

To provide bicycle access to SR 37, the project will construct a the short Class 1 bike path connection from the stairs on the north side of the Walnut Street Overcrossing to the shoulder of westbound SR 37. This connection built on top of the finished grade being built for the bird viewing area, is for bicyclists only and will be signed accordingly. It also is dependent upon environmental clearance.

Caltrans and the City have agreed that the pedestrian access across SR 37 will be closed by the project due to pedestrian safety concerns, even if the pedestrian path or Class 1 bike path are not built because of significant environmental impacts. Caltrans and the City have also agreed that Caltrans will maintain the new pedestrian paths and Class 1 bike path, which are within Caltrans Right of Way.

5.5 Traffic Operations - General

As no capacity enhancements are proposed for this phase, the operations of the interchange would remain as documented in Table 3.

5.6 Ramp Metering

Ramp metering components will be provided for the east bound on-ramp. Components include mainline detectors, ramp demand and passage detectors, ramp queue

detectors, conduits, wiring, Type 170 controller/334 cabinet, telephone and electrical service. Full ramp metering with signal standards and an HOV lane will be implemented when actual traffic demands and operations on the mainline warrant.

5.7 Traffic Signalization at Railroad Avenue/Cedar Street Intersection

The project will install traffic signalization at the Railroad Avenue/Cedar Street Intersection when the intersection is built to address a safety concern about that left turning vehicles on Cedar Street. The City of Vallejo will install the signalization, which will be controlled and maintained by Caltrans.

5.8 Railroad Avenue/Cedar Street Intersection Service Level and Queueing Analysis

An evaluation was made of the projected service level and queueing conditions at the intersection of Railroad Avenue and Cedar Street, shown in Figure A-1below. The intent was to determine if conditions would occur at this intersection that might lead to queuing onto the SR 37 freeway. Analysis indicates that there is room to store approximately 135 vehicles on the bridge and the ramp between the stop-line of the Railroad/First New Street intersection stop line, and the gore separating the through lanes on westbound SR 37 from the westbound off-ramp. The Service Level analysis indicates that the new intersection would operate at LOS B in 2025 with the traffic volumes derived from Alternative 12 (the higher land use alternative). The queuing analysis that is part of the TRAFFIX program used for the analysis indicates that the average queue in the AM peak hour would range between 44 and 49 vehicles; the similar queue in the PM peak hour would range between 39 and 41 vehicles depending on eventual details of the design of the intersection. Based on these average queue lengths, it can be projected that the 85th percentile queue at this location would range between 90 and 100 vehicles in the AM peak hour and approximately 80 in the PM peak hour. The 85th percentile queue is less than the available storage capacity of 135 vehicles. Thus, the analysis indicates that no significant impacts would occur with regard to queuing onto the SR 37 mainline.

Figure A-1 Mare Island Access Study

2020 PM Peak Hour Volume

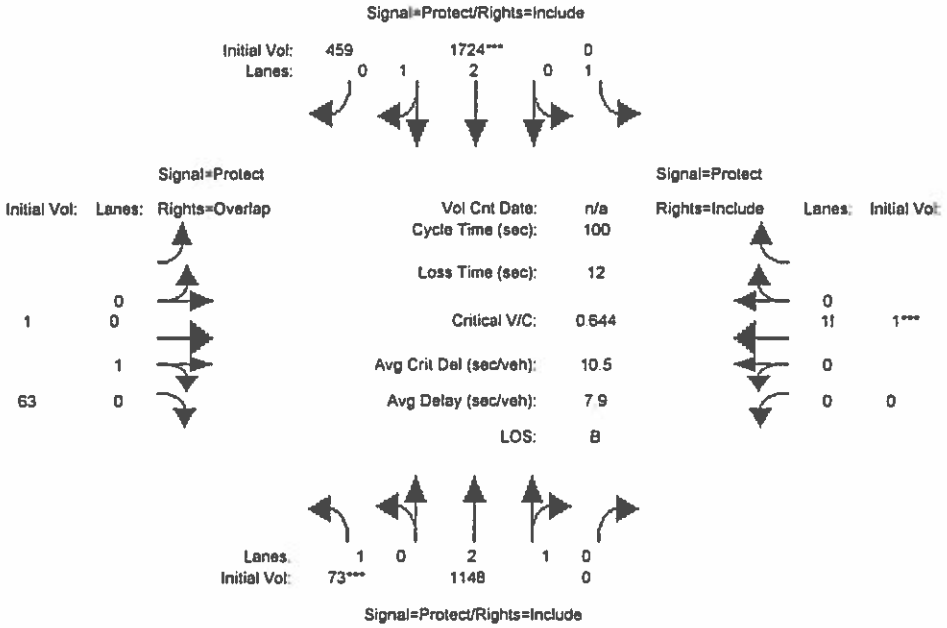
Alternative 12 - RR/G Street Mitigation 3

Level Of Service Computation Report

1994 HCM Operations (Base Volume Alternative)

2020 Alt12

Intersection #40001: Railroad/Cedar Street - AM



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	73	1148	0	0	1724	459	318	1	63	0	1	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	73	1148	0	0	1724	459	318	1	63	0	1	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	73	1148	0	0	1724	459	318	1	63	0	1	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	73	1148	0	0	1724	459	318	1	63	0	1	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.10	1.10	1.00	1.10	1.10	1.03	1.00	1.00	1.00	1.00	1.00
Final Vol.:	73	1263	0	0	1896	505	328	1	63	0	1	1
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	0.97	0.97	0.95	0.85	0.85	1.00	0.83	0.83
Lanes:	1.00	3.00	0.00	1.00	2.37	0.63	2.00	0.02	0.98	0.00	0.50	0.50
Final Sat.:	1805	5700	0	1900	4366	1163	3610	25	1590	0	789	789

```
Capacity Analysis Module:
Vol/Sat:      0.04 0.22  0.00  0.00 0.43  0.43  0.09 0.04  0.04  0.00 0.00  0.00
Crit Moves:   ****                ****        ****                ****
Green/Cycle: 0.06 0.74  0.00  0.00 0.67  0.67  0.14 0.14  0.21  0.00 0.00  0.00
Volume/Cap:   0.64 0.30  0.00  0.00 0.64  0.64  0.64 0.28  0.19  0.00 0.64  0.64
Delay/Veh:    37.5  2.9   0.0   0.0  6.3   6.3  28.2 24.9  21.2   0.0  140 139.9
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   37.5  2.9   0.0   0.0  6.3   6.3  28.2 24.9  21.2   0.0  140 139.9
DesignQueue:     4   20     0     0   39    10    16    0     3     0    0     0
------------|---------------||---------------||---------------||---------------|
HCM Ops Adjusted Lane Utilization Module:
Lanes:        1  0  2  1  0    1  0  2  1  0    2  0  0  1  0    0  0  0  1  0
Lane Group:     L   RT     RT    L   RT     RT    L   RT     RT  xxxx  RT     RT
#LnsInGrps:     1    3     3    1    3     3    2    1     1     0    1     1
------------|---------------||---------------||---------------||---------------|
HCM Ops Input Saturation Adj Module:
Lane Width:    12   12    12   12   12    12   12   12    12   12   12    12
% Hev Veh:              0               0               0               0
Grade:                 0%              0%              0%              0%
Parking/Hr:            No              No              No              No
Bus Stp/Hr:             0               0               0               0
```



```
Area Type:     < < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > >
Cnft Ped/Hr:            0               0               0               0
ExclusiveRT:       Include         Include         Include         Include
% RT Prtct:             0               0               0               0
------------|---------------||---------------||---------------||---------------|
HCM Ops f(rt) and f(lt) Adj Case Module:
f(rt) Case:   xxxx xxxx  xxxx  xxxx    5     5  xxxx    5     5  xxxx    7     7
f(lt) Case:      1 xxxx  xxxx  xxxx xxxx  xxxx     1 xxxx  xxxx  xxxx xxxx  xxxx
--------|--------||--------||--------||--------|
HCM Ops Saturation Adj Module:
Ln Wid Adj:   1.00 1.00 xxxxx  xxxx 1.00  1.00  1.00 1.00  1.00  xxxx 1.00  1.00


Hev Veh Adj: 1.00 1.00 xxxxx  xxxx 1.00  1.00  1.00 1.00  1.00  xxxx 1.00  1.00
Grade Adj:   1.00 1.00 xxxxx  xxxx 1.00  1.00  1.00 1.00  1.00  xxxx 1.00  1.00
Parking Adj: xxxx 1.00 xxxxx  xxxx 1.00  1.00  xxxx 1.00  1.00  xxxx 1.00  1.00
Bus Stp Adj: xxxx 1.00 xxxxx  xxxx 1.00  1.00  xxxx 1.00  1.00  xxxx 1.00  1.00
Area Adj:    1.00 1.00 xxxxx  xxxx 1.00  1.00  1.00 1.00  1.00  xxxx 1.00  1.00
RT Adj:      xxxx xxxx xxxxx  xxxx 0.97  0.97  xxxx 0.85  0.85  xxxx 0.83  0.83
LT Adj:      0.95 xxxx xxxxx  xxxx xxxx xxxxx  0.95 xxxx xxxxx  xxxx xxxx xxxxx
HCM Sat Adj: 0.95 1.00  1.00  1.00 0.97  0.97  0.95 0.85  0.85  1.00 0.83  0.83
Usr Sat Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
HLF Sat Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Fnl Sat Adj: 0.95 1.00  1.00  1.00 0.97  0.97  0.95 0.85  0.85  1.00 0.83  0.83
------------|---------------||---------------||---------------||---------------|
Delay Adjustment Factor Module:
Coordinated:  < < < < < < < < < < < < < < < No   > > > > > > > > > > > > > > > >
Signal Type:  < < < < < < < < < < < < <    Actuated    > > > > > > > > > > > > >
DelAdjFctr:  0.85 0.85  0.00  0.00 0.85  0.85  0.85 0.85  0.85  0.00 0.85  0.85
```

The queue from eastbound traffic leaving the SR 37 freeway has not been analyzed separately, but is part of the queue estimate described above. The volume projected to arrive from the west is approximately 10% of the volume coming from the east. No significant impacts are projected from these volumes.

Some right of way is required for the realignment of the Railroad Avenue and Cedar Street intersection. Right of way will needed to extend the Caltrans right of way limit south to the Railroad Avenue/Cedar Street intersection and for any right of way needed

for the pedestrian path along the EB on ramp or WB off-ramp, which is approximately 5.7 meters from the shoulder edge as shown on Figure 2. This will result in the need for right of way to be conveyed from the City of Vallejo to Caltrans. The area to be transferred is approximately 0.3 hectare. Except for the widening of the existing Walnut Street Overcrossing structure, no structures or utilities will need to be relocated or demolished for the proposed project. No temporary construction easements are anticipated.

There are design exceptions related to superelevation rates, transitions and runoffs, and pedestrian access. Fact Sheets were prepared for the mandatory and advisory design exceptions. The remaining design features shown are consistent with standard design practices.

Alternative 2 improves the access onto the future roadway system of Mare Island while retaining the existing Walnut Avenue Interchange. It retains the two lanes for through traffic in each direction on SR 37, while realigning the single lane on and off-ramps. Alternative 2 integrates the existing overcrossing and exit/entrance ramps with the proposed on-island roadway configuration.

Alternative 1, the no-build alternative, keeps the existing bottle neck at the guard house while Alternative 2 eliminates this bottle neck.

Table 8 documents the projected service levels for land use Alternative 12 (the higher of the two land use scenarios).

Table 8
Comparison of Alternatives
Year 2025 Traffic Forecasts

Criterion		Time Period	No-Build	Alternative 2
Year 2025 Level of Service	Eastbound On-Ramp	AM	C	C
		PM	D	D
	Eastbound Off-Ramp	AM	C	B
		PM	C	C
	Westbound On-Ramp	AM	C	C
		PM	B	B
	Westbound Off-Ramp	AM	F	E
		PM	C	C
Mainline Eastbound		AM/PM	C/E	C/E
Mainline Westbound		AM/PM	E/C	E/C

The physical characteristics of the area surrounding the existing Walnut Avenue Overcrossing Interchange limit the alternatives available for consideration. The area immediately north of the Caltrans right-of-way for the existing interchange is a wetland and the existing Walnut Avenue overcrossing structure lies approximately 300 meters

be circulated.

11. Environmental Process

The appropriate environmental document for this project will be a mitigated negative declaration or a categorical exemption. The public will be given an opportunity to be involved in the development of this document at a public hearing. The type of document will be determined after completion of the biological, cultural, and hazardous materials investigations discussed below. The City of Vallejo will be the Lead Agency for the environmental document and this document is scheduled to be completed in 2001/2002 as part of the preparation of the Project Report. Environmental issues that have the potential to affect the viability of an alternative, impacting costs or schedule, are identified below. Early identification of such issues, and initiation of further site specific investigations at the next phase of project development will aid in the resolution of impacts in a timely manner. Potential issues include:

- Biological Resources
- Cultural Resources
- Hazardous Materials

13.1 Biological Resources

Biological resource areas in the vicinity of the interchange include Mare Island Strait and the historic marshlands north of Mare Island. The area has been extensively surveyed and mapped in conjunction with the base closure and reuse plan, and the information is catalogued in the 1998 Mare Island Reuse EIR/EIS, Volume 1, Section 3.6 and 4.6 and Volume 2, Appendix F. As noted above, a more site specific assessment of the potential impact on biological resources resulting from the proposed improvements, and the need for imposition of any mitigation measures will be examined in the next phase of project development.

Wetlands areas at Mare Island fall under US Army Corps jurisdiction and are delineated and listed as sensitive habitat by the CDFG and USFWS (EIR Volume 1 - pp. 3-87 to 3-93 and Figure 3-14). Three type of wetland communities are present at Mare Island: northern coastal salt marsh, coastal brackish marsh, and diked marsh or dredge ponds. An extensive stand of high quality northern coastal salt marsh occurs on the entire western edge of Mare Island, which is contiguous with wetlands on the San Pablo Bay National Wildlife Refuge to the north. Coastal brackish marsh is located adjacent, and these two communities are usually found in combination, as they are along the Napa River on the east side of the island, between the Napa River and causeway bridges. Diked marsh or nontidal wetlands at Mare Island support salt marsh habitat that has been isolated from tidal action by the construction of levees. Diked marsh areas are present west of the existing interchange and on State reversionary lands.

Interchange improvements may have an impact on the identified wetlands areas and areas known to support salt marsh harvest mouse, a federally endangered species. Based on the resources surveyed and mapped in the certified Mare Island Reuse EIR/EIS, and an informal site review, the above described resources lie in the existing and proposed Caltrans right-of-way and it is anticipated that the proposed project will not impact these resources. During the next phase of project development a qualified biologist will conduct a site specific survey of the selected alternative to verify that sensitive resources are outside of the project area. If resources are found to be present, the biologist will develop a mitigation measure to avoid impacts on identified biological resources.

13.2 Cultural Resources

In 1962, the State of California designated Mare Island Naval Shipyard as State Historic Landmark No. 751. In 1975 the central area of historic buildings was designated a National Historic Landmark. The Mare Island Historic District was established in 1996 consolidating resources into a single district that encompasses approximately 65% of the island. The buildings, landscaping and features in the area immediately south of the existing interchange were post-1945 construction, and the nearest historic building or historic district boundary is approximately 3,500 feet from the proposed interchange improvements; therefore, the potential for impact on historic resources is considered very low. The area of the proposed project lies outside of the Mare Island Historic District as shown in Figure 3-9 of the EIS/EIR. The Memorandum of Agreement (MOA) between the Navy and SHPO regarding historic properties on Mare Island is included in the EIR/EIS, Vol. 2, Appendix D.

The Mare Island Reuse Plan EIS/EIR documents and evaluates the impact on Cultural Resources in Volume 1, Sections 3.4 and 4.4. All of Mare Island was intensively surveyed for archaeological resources in 1983-84. Earlier surveys (between 1907 and 1984) identified four sites along the eastern edge of the Napa River/Mare Island Strait consisting of disturbed shell middens. Prehistoric sites have been identified on the southern half of the island. While cultural resources do not appear to be located in the project area, this should be verified by a qualified archaeologist's review of records and literature on file at the Northwest Information Center at Sonoma State University during the next phase of project development.

13.3 Air Quality

Short-term impacts to air quality will result from construction generated activities. Adequate dust control programs will be implemented in the construction documents for the proposed interchange improvements.

As discussed in Section 4-10 - Air Quality of the EIR/EIS other traffic related impacts are considered nonsignificant.

13.4 Water Quality

Impacts from surface runoff could occur due to spills and increased erosion and sedimentation during construction. The proposed project site is greater than 2 hectares. Therefore the project shall adhere to the conditions of the Caltrans statewide NPDES Permit CAS #000003, order #99-06-DWQ, issued by the State Water Resources Control Board (SWRCB) and NPDES General Permit CAS #000002, Order #99-08-DWQ, for General Construction Activities. A Conceptual Storm Water Pollution Prevention Plan shall be submitted to the SWRCB 30 days prior to beginning construction. With implementation of the NPDES Construction Stormwater Permit requirements including the SWPPP in the construction contract documents, impacts should be less than significant.

Proposed improvements and construction techniques should not impact groundwater.

13.5 Landscaping

Typical Caltrans erosion control planting will be implemented in the construction contract documents. No other landscaping is anticipated.

13.6 Traffic

Two EIR/EIS projects are currently underway which will provide environmental clearance for traffic forecasts used for the project proposed in this PSR. An EIR/EIS for the downtown/waterfront area is being prepared under the sponsorship of the City of Vallejo Redevelopment Department. This EIR/EIS will touch only peripherally on the Mare Island/SR 37 interchange, as the interchange is somewhat remotely located from the downtown area; however, an evaluation of the interchange will be part of that environmental process. A supplemental EIR/EIS is also being prepared for that portion of Mare Island south of G Street. This document will evaluate all proposed development on Mare Island, and bring the environmental analysis prepared for the Base Reuse Plan up to date and into conformance with the most current plans of Mare Island developers. The interchange considered in this PSR is significantly affected by land use decisions on Mare Island; and the interchange will be analyzed in this EIR/EIS to a level similar to that contained in this PSR. The environmental clearance created in these two environmental documents should provide clearance, with respect to traffic, for proposals to the SR 37/Mare Island interchange.

The current schedule has both documents circulating a draft EIR/EIS is October 2001 with the approval for both documents in December, 2001. It is anticipated the second document will provide the formal Record of Decision for the development of the Island. At the present time it does not appear that permits will need to be obtained from any of the federal, state, regional and local agencies or from the US Coast Guard. This will be confirmed during the preparation of the supporting environmental documentation for the Project Report.

- **FHWA INVOLVEMENT**

  Depending on funding sources, FHWA may be involved. However, at the time of the preparation of this Project Study Report it is not anticipated that the FHWA will be involved.

- **FUNDING/SCHEDULING**

  The City of Vallejo is investigating various sources for this project including federal, state and local sources. The City has secured an Economic Development Administration (EDA) grant of $580,125 for the design of the on-site roadway system and the SR 37 Mare Island Interchange and for the design for associated utility relocation . This grant requires a 50-percent local match raising the total to $1,160,250. During the next cycle for EDA grant application the City will apply for construction funding. Any funding obtained will have a minimum 50 - percent local match. It is anticipated that this funding and local match will provide the necessary funding for constructing the project. The current schedule shows the environmental document, the Project Report, and the PS&E package being completed in 2002. Construction of the Project is scheduled to begin in fall 2002.

  The funding for design will be provided by EDA and on-island developers. The City of Vallejo will apply for construction funding during the next EDA funding cycle. Construction is scheduled to begin in spring 2002.

PROJECT PERSONNEL

Local Agencies

Gary Leach (707) 648-4316
City Engineer
City of Vallejo

Daryl K. Halls, Executive Director (707) 422-6491
Solano Transportation Authority
133 Sunset, Suite 200
Suisun City, CA

Caltrans - District 4

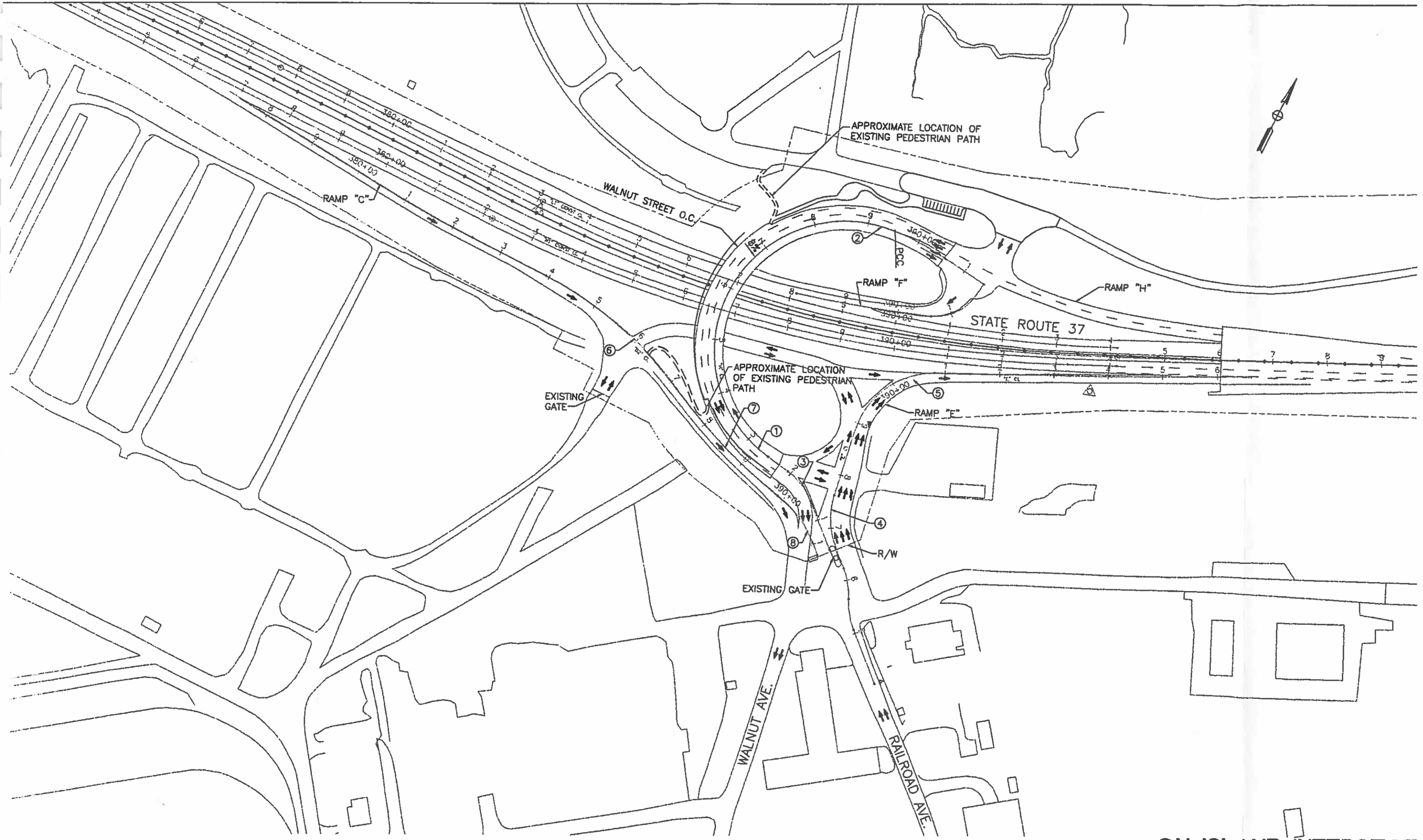
Raymond Pang (510)286-5281
Office Chief, Caltrans Design - Solano/Contra Costa

Vince Bonner (510)286-5648
Design Senior, Caltran Design - Solano/Contra Costa

Felicia Wong (510)622-5991
Project Coordinator, Caltrans Design - Solano/Contra Costa

Attachments:

A. Layout No-Build Alternative
B. Layout Build Alternative
C. Vertical Profiles Build Alternative
D. Superelevation Diagrams Build Alternative
E. Typical Sections Build Alternative
F. PSR Cost Estimate
G. Right of Way Data Sheet
H. Environmental Check List
I. Draft Cooperative Agreement
J. Initial Site Assessment Checklist



ON-ISLAND INTERSECT

STATE ROUTE 37/MARE ISLAND INTE

ON-ISLAND INTERSECT

STATE ROUTE 37/MARE ISLA

REVISED BY | DATE REVISED

DATE

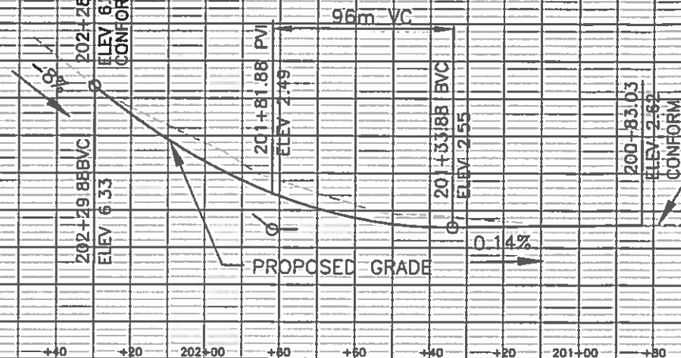
CALCULATED/ DESIGNED BY

CHECKED BY

PROJECT LANDSCAPE ARCHITECT

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans



"HL" Profile

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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.

REGISTERED PROFESSIONAL ENGINEER
XX XXXXXX XXX XXXXXX
No. C
Exp. XX/XX/03
CIVIL
STATE OF CALIFORNIA

Station
CU
M
Exc
Emb

ATTACHMENT C

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

CU 00000

EA 000000

LAST REVISION 00-00-00

DATE PLOTTED => $DATE

$TIME

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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.

REGISTERED PROFESSIONAL ENGINEER — XXXXXX XXX XXXXXX — No. C_____ Exp. XX/XX/03 — CIVIL — STATE OF CALIFORNIA

Caltrans Metric

REVISED BY | DATE REVISED

DATE

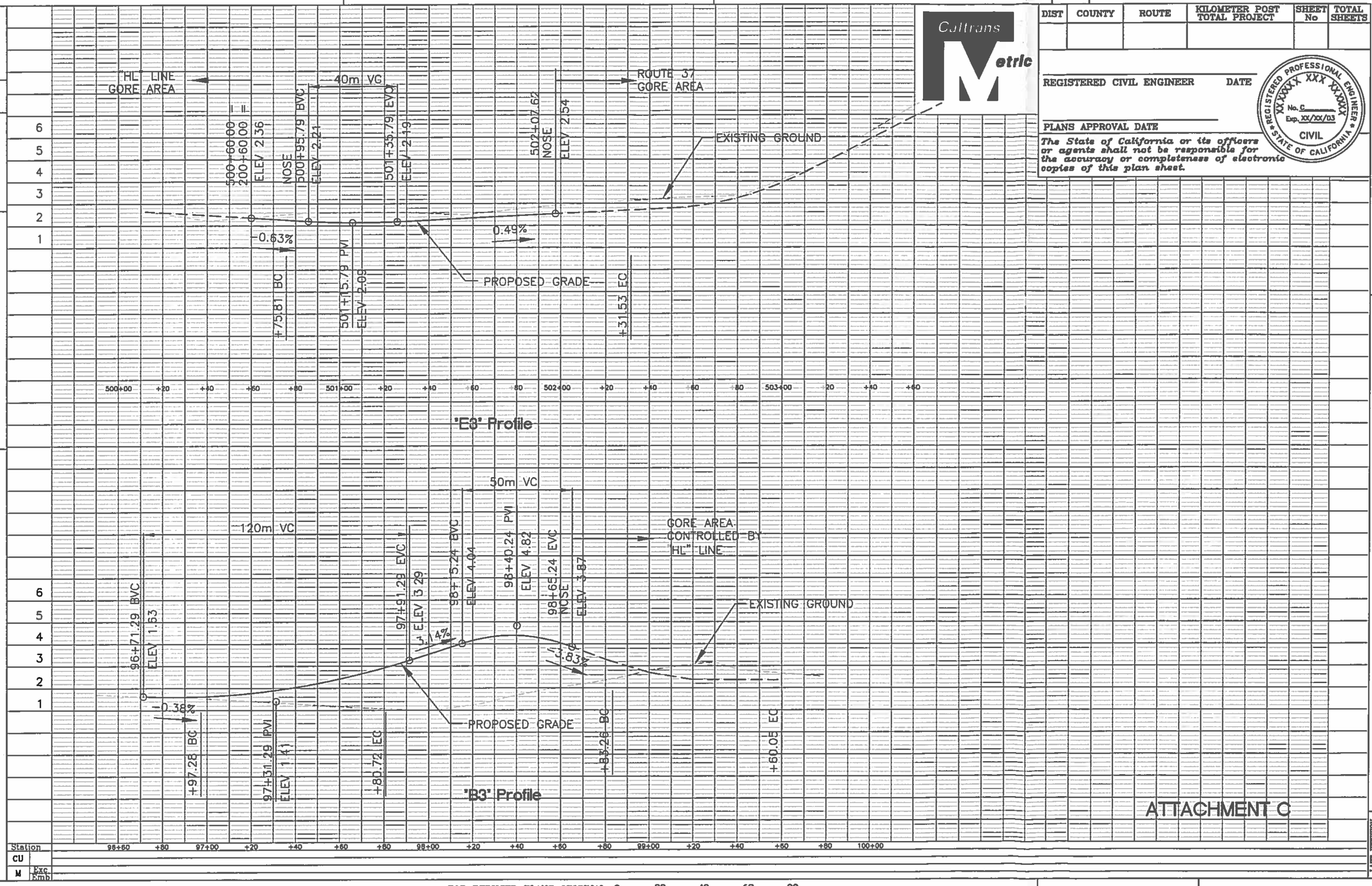
CALCULATED/ DESIGNED BY

CHECKED BY

PROJECT LANDSCAPE ARCHITECT

STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION

Caltrans



ATTACHMENT C

Station

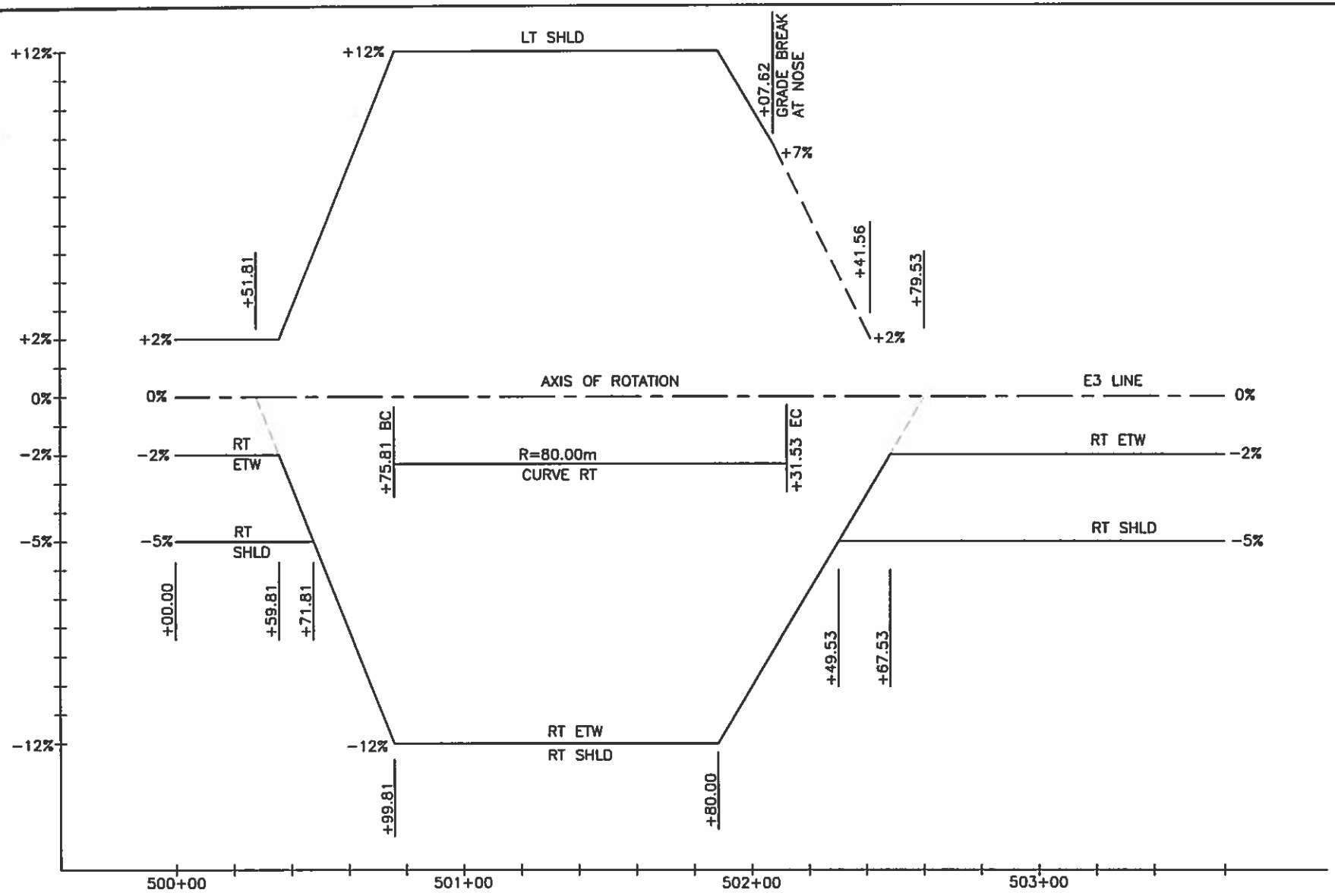
CU

M Exc Emb

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

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

CU 00000 EA 000000



"E3" SUPERELEVATION DIAGRAM

SCALE: 1cm = 20m

ATTACHMENT D

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

Korve Engineering
155 GRAND AVENUE, SUITE 400
OAKLAND, CALIFORNIA 94612
(510) 763-2929

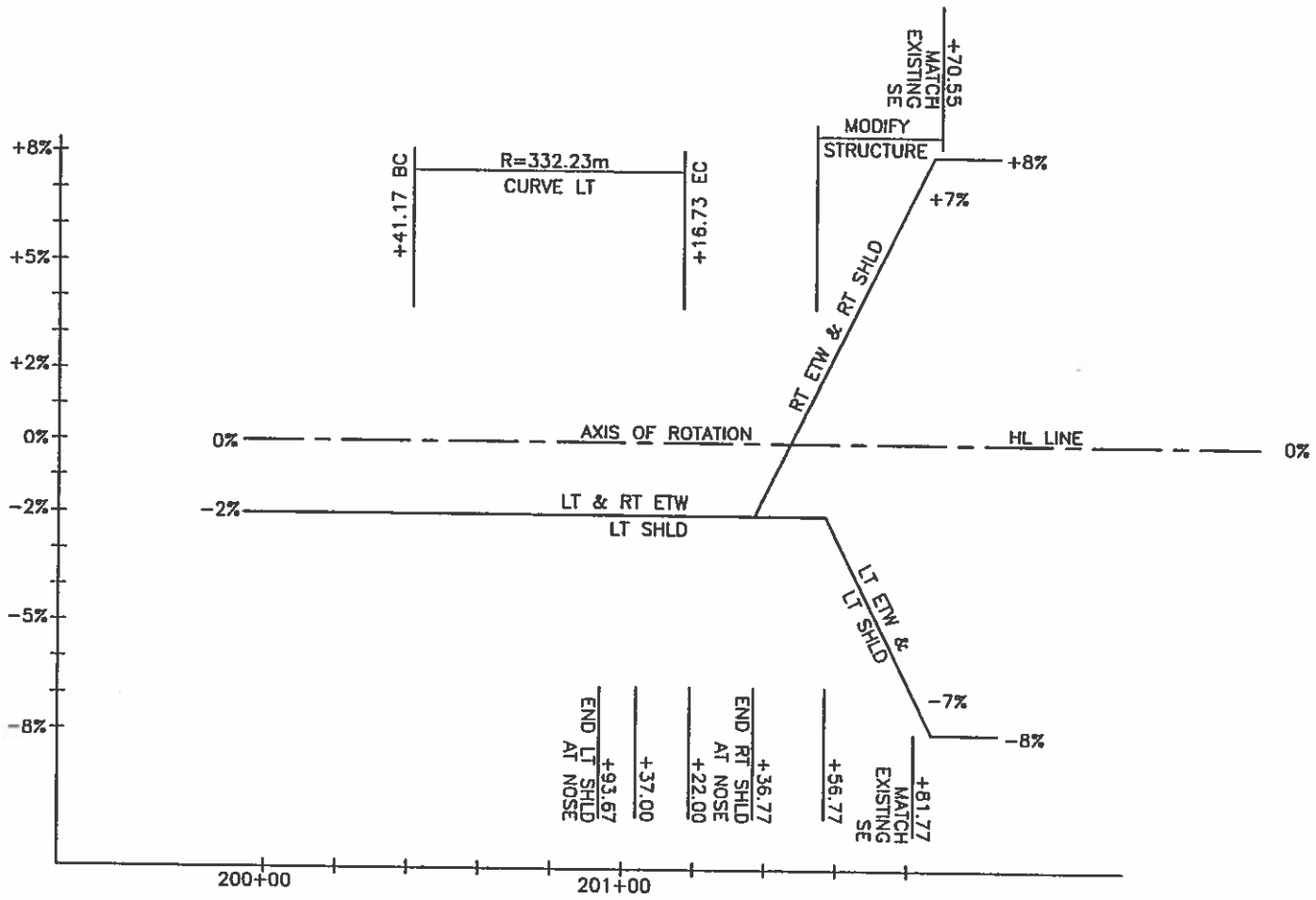
SCALE: _____

CITY OF VALLEJO

STATE ROUTE 37/MARE ISLAND INTERCHANGE

SUPERELEVATION

File: _____ P.E. _____ SHEET No. _____ OF _____



"HL" SUPERELEVATION DIAGRAM

SCALE: 1cm = 20m

ATTACHMENT D

REGISTERED PROFESSIONAL ENGINEER
No.
Exp.
CIVIL
STATE OF CALIFORNIA

Korve Engineering
155 GRAND AVENUE, SUITE 400
OAKLAND, CALIFORNIA 94612
(510) 763-2929

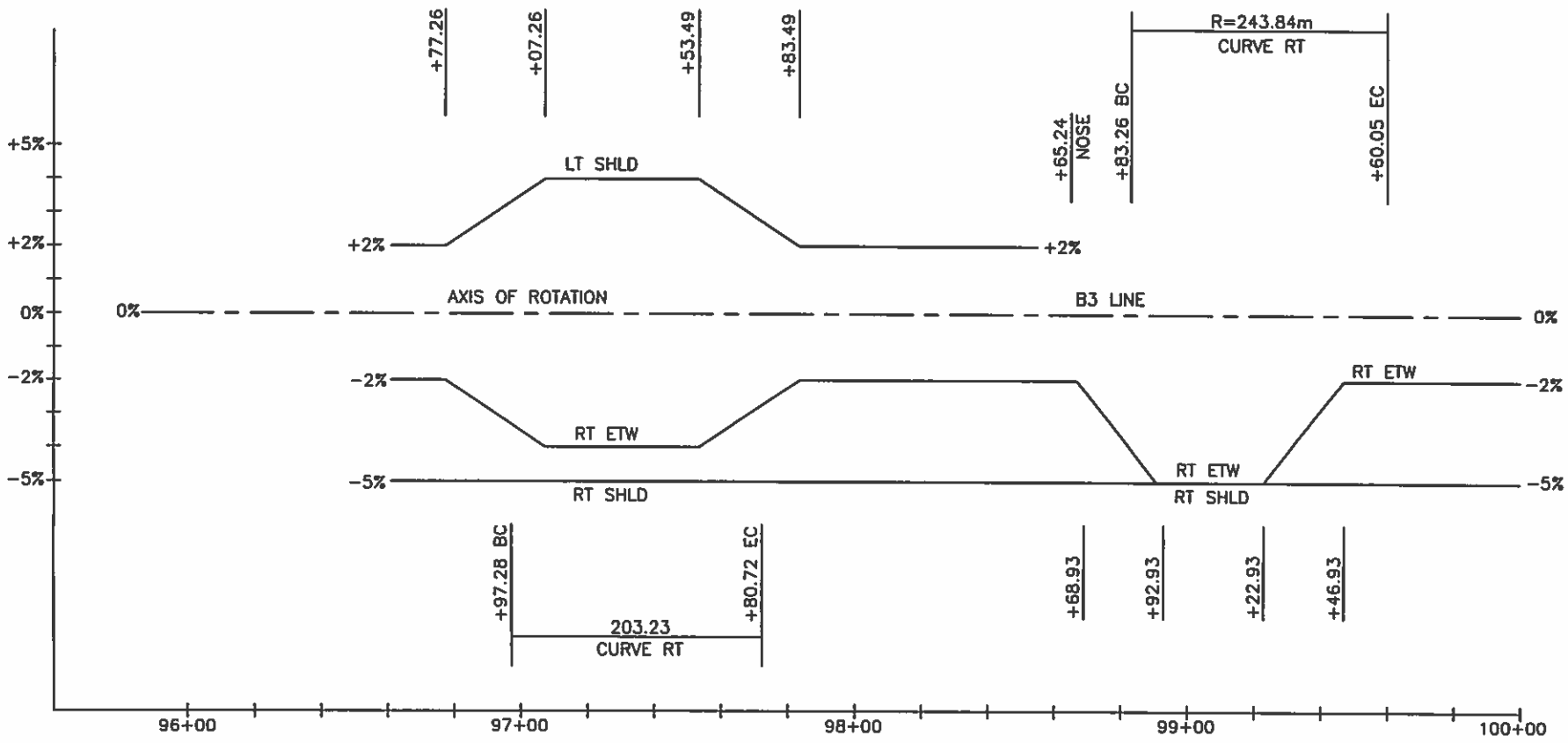
SCALE:

CITY OF VALLEJO

STATE ROUTE 37/MARE ISLAND INTERCHANGE

SUPERELEVATION

File: P.B. SHEET No. OF



'B3' SUPERELEVATION DIAGRAM

SCALE: 1cm = 20m

ATTACHMENT D

REGISTERED PROFESSIONAL ENGINEER
No.
Exp.
CIVIL
STATE OF CALIFORNIA

Korve Engineering
155 GRAND AVENUE, SUITE 400
OAKLAND, CALIFORNIA 94612
(510) 763-2929

SCALE:

CITY OF VALLEJO

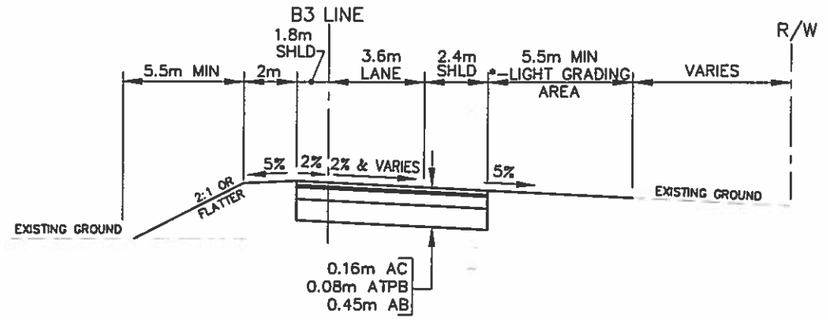
STATE ROUTE 37/MARE ISLAND INTERCHANGE

SUPERELEVATION

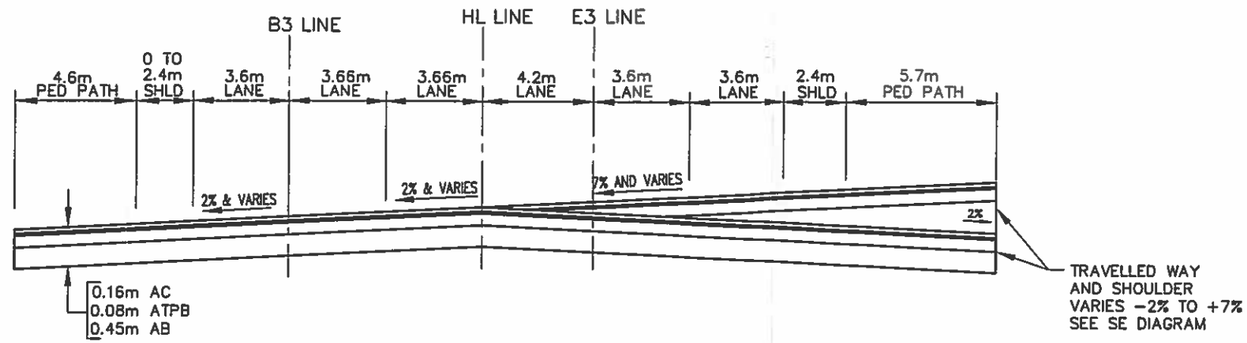
File: F.B. SHEET No. OF

Korve Engineering

ALT. 2, PHASE A
TYPICAL SECTION B3 LINE



ALT. 2, PHASE A
TYPICAL SECTION HL, B3, AND E3 LINES



TYPICAL SECTIONS, ALTERNATIVE 2

ATTACHMENT E
NO SCALE

CAUTION: THIS PLAN MAY BE REDUCED

PSR COST ESTIMATE

Attachment F

Project Study Report Cost Estimate

Caltrans Metric

District-County-Route	04SOL37
KP (PM)	11.4 - 13.4
EA	04268-28470K
Program Code	HB4N

PROJECT DESCRIPTION:

Limits Route 37/Mare Island interchange, including all ramp connections to Route 37, to proposed ROW limit at Railroad Avenue

Proposed Improvement Modifications to south end of the Walnut Street Overpass and interchange ramps to provide for both a smooth connection to proposed Railroad Avenue and future traffic volumes.

Alternate - 2

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	$1,953,029
TOTAL STRUCTURE ITEMS	$624,238
SUBTOTAL CONSTRUCTION COSTS	$2,577,267
TOTAL RIGHT OF WAY ITEMS	$855,000
TOTAL PROJECT CAPITAL OUTLAY COSTS	$3,440,000

Reviewed by District Program Manager _____ Date _____
(Signature)

Approved by Project Manager _____ Date _____
(Signature)

Phone No. _____

District-County-Route	04SOL37
KP (PM)	11.4 - 13.4
EA	04268-28470K

I. ROADWAY ITEMS

Section 1 Earthwork	Quantity	Unit	Unit Price	Item Cost	Section Cost
Roadway Excavation	9,471	cu m	$13.00	$123,123	
Imported Borrow			$	$	
Clearing & Grubbing		LS	$51,750.00	$51,750	
Develop Water Supply		LS	$5,500.00	$5,500	
Removals		LS	$10,350.00	$10,350	
			$	$	
				Subtotal Earthwork	$190,723

Section 2 Pavement Structural Section*					
Pavement	8,867	sq m	$54.00	$478,818	
Asphalt Concrete			$	$	
Lean Concrete Base			$	$	
Cement-Treated Base			$	$	
Aggregate Base			$	$	
Treated Permeable Base			$	$	
Aggregate Subbase			$	$	
Pavement Reinforcing Fabric			$	$	
Edge Drains			$	$	
Curb & Gutter			$	$	
Sidewalk	2,388	sq m	$54.00	$128,952	
			$	$	
			$	$	
				Subtotal Pavement Structural Section	$607,770

Section 3 Drainage					
Large Drainage Facilities			$	$	
Storm Drains		LS	$27,200.00	$27,200	
Pumping Plants			$	$	
Project Drainage			$	$	
(X-Drains, overside, etc.)			$	$	
			$	$	
			$	$	
			$	$	
			$	$	
				Subtotal Drainage	$27,200

*Reference sketch showing typical pavement structural section elements of the roadway. Include (if available) T.I., R-Value and date when tests were performed.

NOTE: Extra lines are provided for items not listed, use additional lines are appropriate.

District-County-Route	04SOL37
KP (PM)	11.4 - 13.4
EA	04268-28470K

Section 4 Specialty Items	Quantity	Unit	Unit Price	Item Cost	Section Cost
Retaining Walls			$	$	
Noise Barriers			$	$	
Barriers and Guardrails			$	$	
Equipment/Animal Passes			$	$	
Highway Planting			$	$	
Replacement Planting			$	$	
Irrigation Modification			$	$	
Relocate Private Irrigation Facilities			$	$	
Erosion Control		LS	$25,000.00	$25,000	
Slope Protection			$	$	
Water Pollution Control		LS	$20,000.00	$20,000	
Hazardous Waste Mitigation		LS	$30,000.00	$30,000	
Resident Engineer Office Space			$	$	
Remove Stripes	195	m	$1.75	$341	
Utilities		LS	$47,500.00	$47,500	
SWPPP		LS	$15,500.00	$15,500	
				Subtotal Specialty Items	$138,341

Section 5 Traffic Items					
Lighting	881	m	$100.00	$88,100	
Traffic Delineation Items			$	$	
Traffic Signals			$	$	
Overhead Sign Structures			$	$	
Roadside Signs		LS	$47,500.00	$47,500	
Traffic Control Systems		LS	$47,500.00	$47,500	
Transportation Management Plan		LS	$	$	
Permanent Striping	3,114	m	$0.75	$2,336	
Ramp Metering Componenets		LS	$75,000.00	$75,000	
			$	$	
				Subtotal Traffic Items	$260,436
				TOTAL SECTIONS 1 thru 5	$1,224,470

NOTE: Extra lines are provided for items not listed, use additional lines as appropriate.

District-County-Route	04SOL37
KP (PM)	11.4 - 13.4
EA	04268-28470K

Section 6 Minor Items			Item Cost	Section Cost
$1,224,470 (Subtotal Sections 1 thru 5)	x	10%	$122,447	
			TOTAL MINOR ITEMS	$122,447

Section 7 Roadway Mobilization				
$1,346,917 (Subtotal Sections 1 thru 6)	x	10%	$134,692	
			TOTAL ROADWAY MOBILIZATION	$134,692

Section 8 Roadway Additions

Supplemental Work				
$1,346,917 (Subtotal Sections 1 thru 6)	x	10%	$134,692	
Contingencies				
$1,346,917 (Subtotal Sections 1 thru 6)	x	25%	$336,729	
			TOTAL ROADWAY ADDITIONS	$471,421
			TOTAL ROADWAY ITEMS (Subtotal Sections 1 thru 8)	$1,953,029

Estimate Prepared By _____ Phone # _____ Date _____
(Print Name)

Estimate Checked By _____ Phone # _____ Date _____
(Print Name)

** Use appropriate percentage per Chapter 20.

District-County-Route	04SOL37
KP (PM)	11.4 - 13.4
EA	04268-28470K

II. STRUCTURES ITEMS

	Structure 1	Structure 2	Structure $3
Bridge Name	WB Exit/EB Ent		
Structure Type			
Width (out to out) - (m)	Varies		
Span Lengths - (m)	Varies		
Total Area - (m2)	214		
Footing Type (pile/spread)			
Cost Per m2 (incl. 10% mobilization and 25% contingency)	$2,917.00		
Total Cost for Structure	$624,238		

SUBTOTAL STRUCTURES ITEMS $624,238
(Sum of Total Cost for Structures)

Railroad Related Costs: $_____
$_____
$_____

SUBTOTAL RAILROAD ITEMS $_____

TOTAL STRUCTURES ITEMS $624,238
(Sum of Structures Items plus Railroad Items)

COMMENTS:

Estimate Prepared By _____ Phone # _____ Date _____
(Print Name)

NOTE: If appropriatem attach additional pages and backup.

District-County-Route	04SOL37
KP (PM)	11.4 - 13.4
EA	04268-28470K

III. RIGHT OF WAY ITEMS — ESCALATED VALUE

A. Acquisition, including excess lands, damages to remainder(s) and Goodwill — $855,000

B. Utility Relocation (State share) — $_____

C. Relocation Assistance — $_____

D Clearance/Demolition — $_____

E. Title and Escrow Fees — $_____

TOTAL RIGHT OF WAY ITEMS (Escalated Value) $855,000

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

F. Construction Contract Work

Brief Description of Work:

_____
_____
_____
_____

Right of Way Branch Cost Estimate for Work* $_____

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

COMMENTS:

Estimate Prepared By _____ Phone # _____ Date _____
(Print Name)

NOTE: If appropriate, attach additional pages and backup.

RIGHT of WAY DATA SHEET

Attachment G

To: John A. Hibid
District Office Chief
R/W Local Public Agency Services

Date: February, 2001

Co. SOL Rte. 38 K. P. 11.4/ 13.4

Attention: Shirley Parker
District Branch Chief
Local Public Agency Services

Expense Authorization 28470K

Subject: **RIGHT OF WAY DATA SHEET- LOCAL PUBLIC AGENCY SERVICES**

Project Description: SR37 Mare Island Interchange at Walnut Avenue Overvrossing

Right of way necessary for the subject project will be the responsibility of City of Vallejo.

The information in this data sheet was developed by Korve Engineering, Inc..

I. ***Right of Way Engineering***

Will right of way engineering be required for this project?

- No ____
- Yes __X__ (Submit a copy of the *Right of Way Engineering, Surveys and Mapping Services checklist for Special Funded Projects*. This checklist includes but is not limited to the following items.)

  - Hard copy (base map) __X__
  - Appraisal map ____
  - Acquisition Documents ____
  - Property Transfer Documents __X__
  - R/W Record Map __X__
  - Record of Survey ____

II. ***Engineering Surveys***

1. Is any surveying or photogrammetric mapping required?

   No ____ Yes __X__ (Complete the following)

2. Datum Requirements

   Yes __X__ Project will adhere to the following criteria.
   - Horizontal - datum policy is NAD 83, CA-HPGN, EPOCH 1991.35 and metric.
   - Vertical - datum policy is NAVD 88.
   - Units - metric is required.

   No _____ Provide an explanation on additional page.

3. Will land survey monument perpetuation be scoped into the project, if required?

   Yes __X__

   No ____ Provide explanation on additional page.

III. ***Parcel Information (Land and Improvements)***

Are there any property rights required within the proposed project limits?

No _____ Yes __X__ (Complete the following)

	Part Take	Full Take	Estimate $
A. Number of Vacant Land Parcels	2		$
B. Number of Single Family Residential Units	0		$
C. Number of Multi-Family Residential Units	0		$
D. Number of Commercial/Industrial Parcels	0		$
E. Number of Farm/Agricultural Parcels	0		$
F. Permanent and/or Temporary Easements	0		$
G. Other Parcels (define in "Remarks" section)	0		$
Totals	2		$

Provide a general description of the right of way and excess lands required (zoning, use, improvements, critical, or sensitive parcels, etc.). A 0.264 hectare parcel immediately south of the existing norht base entrance and a 0.0035 parcel along the "E3" line will be conveyed in fee title to Caltrans from the City of Vallejo. The smaller parcel is vacant with only a cover of vegetation. The larger parcel is almost entirely covered with asphalt concrete with the remainder covered with vegetation..

IV. ***Dedications***

Are there any property rights which have been acquired, or anticipate will be acquired, through the "dedication" process for the Project?

No __X__ Yes _____ (Complete the following)

Number of dedicated parcels ___0___

Have the dedication parcel(s) been accepted by the municipality involved ?

V. ***Excess Lands / Relinquishments***

Are there Caltrans property rights which may become excess lands or potential relinquishment areas?

No __X__ Yes _____ (Provide an explanation on additional page.)

VI. ***Relocation Information***

Are relocation displacements anticipated?

No __X__ Yes _____ (Complete the following)

A. Number of Single Family Residential Units ____0____
Estimated RAP Payments $ _____

B. Number of Multi-Family Residential Units ____0____
Estimated RAP Payments $ _____

C. Number of Business/Nonprofit ____0____
Estimated RAP Payments $ _____

D. Number of Farms ____0____
Estimated RAP Payments $ _____

E. Other (define in the "Remarks" section) ____0____
Estimated RAP Payments $ _____

Totals ____0____ $ _____

VII. ***Utility Relocation Information***

Anticipate any utility facilities or utility rights of way to be affected?

No __X__ Yes _____ (Complete the following)

		Estimated Relocation Expense		
Facility	Owner	State Obligation	Local Obligation	Utility Owner Obligation
A.		$	$	$
B.		$	$	$
C.		$	$	$
D.		$	$	$
E.		$	$	$
F.		$	$	$
Totals				
Number of facilities 0		$ *	$	$

*This amount reflects the estimated total financial obligation by the State.

Additional information concerning utility involvement on this project?

VIII. ***Rail Information***

Are railroad facilities or railroad rights of way affected?

No __X__ Yes ____ (Complete the following)

Describe railroad facilities or railroad rights of way affected.

Owner's Name	Transverse Crossing	Longitudinal Encroachment
A.		
B.		

Discuss types of agreements and rights required from the railroads. Are grade crossings requiring services contracts, or grade separations requiring construction and maintenance agreements involved?

IX. ***Clearance Information***

Are there improvements that require clearance?

No __X__ Yes ____ (Complete the following)

A. Number of Structures to be Demolished ___0___ $ _____
Estimated Cost of Demolition

X. ***Hazardous Materials/Waste***

Are there any site(s) and/or improvements(s) in the Project Limits that are known to contain

hazardous materials? None __X__ Yes ____ (Explain in the "Remarks" section)

Are there any site(s) and/or improvement(s) in the Project Limits that are suspected to contain

hazardous waste? None __X__ Yes ____ (Explain in the "Remarks" section)

XI. ***Project Scheduling***

	Proposed lead time	Completion date
* Preliminary Engineering, Surveys	____ (months)	05/2001
* R/W Engineering Submittals	____ (months)	07/2001
* R/W Appraisals/Acquisition	____ (months)	NA
Proposed Environmental Clearance		06/2001
Proposed R/W Certification		10/2001

XII. ***Proposed Funding***

	Local	State	Federal	Other
Acquisition				
Utilities				
Relocation Assistance Program				
R/W Support Cost (Eng. Appraisals, etc.)	$110.000			

XIII. ***Remarks*** The City of Vallejo will acquired the Mare Island Naval Base from the U.S. Navy. The two parcels to be acquired by Caltrans will be conveyed in fee title by the City to Caltrans. Topographic mapping will be required for the Project Report and the PS&E.

Project Sponsor Consultant

Prepared by:

David Mog P.E. Project Manager

Korve Engineering, Inc.

Date

Project Sponsor

Reviewed and Approved by:

Gary Leach City Engineer

City of Vallejo

Date

Caltrans
Reviewed by:

Shirley Parker
Caltrans District Branch Chief

Date

Local Public Agency Services

Division of Right of Way

CALTRANS DISTRICT 4

RIGHT OF WAY ENGINEERING, SURVEYS AND MAPPING SERVICES CHECKLIST FOR SPECIAL FUNDED PROJECTS

PROJECT: SR 37/MARE ISLAND INTERCHANGE

EA: _____ DATE: OCTOBER 200

THIS PROJECT MAY INCLUDE, BUT IS NOT LIMITED TO, THE FOLLOWING RIGHT OF WAY ENGINEERING, SURVEYS AND MAPPING SERVICES ACTIVITIES AND DELIVERABLES FOR REVIEW AND ACCEPTANCE:

x 1. Caltrans Design conducts project kickoff meeting with consultants and representatives of various Caltrans functional units.

X 2. Designate a Survey Manager and conduct initial surveys discussion with District Staff. See "Procedures Manual for Special Funded State Highway Projects" (PM) and "Surveys Standards for Special Funded Projects" (SSSFP). Refer to Caltrans "Drafting and Plans Manual", Chapter 4 (DPM4), "Surveys Manual"(SM) and "Right of Way Manual", Chapter 6 (RWM6). Review Scope of Work with respect to the requirements of the Cooperative Agreement(s).

X 3. Submit written request to Caltrans Design for Caltrans horizontal and vertical control, topograghic mapping, Right of Way maps and electronic library cells for mapping standards.

x 4. Right of Way Data Sheet – Local Programs in P.S.R. and P.R.. Complete sections regarding R/W Engineering and Surveys noting specific datums being used.

X 5. Horizontal datum policy is NAD83, CA-HPGN, EPOCH 1991.35 and metric. Project Control-Horizontal, to be of First Order accuracy (preferred, when feasible). Refer to SM.

X 6. Vertical datum policy is NAVD88. Refer to SM.

X 7. GPS primary control survey. Submit for review and acceptance. See checklist.

X 8. Topographic mapping. Submit for review and acceptance. See checklist.

X 9. Project Control survey. Submit for review and acceptance: field notes, traverse closures, adjustments, calculations, alignment sketches of all survey traverses and level runs, level notes and point listings to include coordinates, elevations and to-reach descriptions. Use Caltrans assigned double alpha prefix with continuous numbering system in labeling and stamping control points. All pages of submittals to be identified and contain company name. Refer to SM.

CALTRANS DISTRICT 4

RIGHT OF WAY ENGINEERING, SURVEYS AND MAPPING SERVICES
CHECKLIST FOR SPECIAL FUNDED PROJECTS

PROJECT: SR 47/MARE ISLAND INTERCHANGE

EA: _____ DATE: OCTOBER 2000

__X__ 10. Assign State parcel numbers. Submit written request to Caltrans design.

__X__ 11. Hardcopy Map. Submit for review and acceptance, together with: preliminary title reports, reference maps, map checks along centerlines and right of way and parcel closures with areas. Recommend draft hardcopy map depicting existing centerline, R/W and land net be submitted for review prior to R/W requirements being determined. Hardcopy map shall contain all data shown on the project appraisal maps, together with: horizontal control, monumentation found and coordinates.

__X__ 12. Survey narrative of project control survey and of methodology used to convert existing engineer's centerline and R/W to NAD83, including land net setting. Hardcopy shall show relationship between existing centerlines and new centerlines by station, offset and coordinates. Show existing coordinates and NAD83 coordinates at conform points. Survey narrative to include any problems encountered and how they were resolved.

_____ 13. Appraisal Maps. Submit for review and acceptance. Refer to RWM6.

_____ 14. Caltrans Design to review draft appraisal maps for sufficiency with respect to right of way requirements, access control, engineer's centerlines and easements required for the project. The formal Certificate of Sufficiency will be required later.

__X__ 15. Legal Descriptions. Submit for review and acceptance. See format example. Use Caltrans access control clauses. Refer to Caltrans "Notes for Deed Writing Course".

__X__ 16. Acquisition Documents. Submit for review and acceptance. Use Caltrans forms if State is grantee. Refer to RWM6, forms.

__X__ 17. Other deeds and ancillary conveyance documents. Submit for review and acceptance. Refer to RWM6, forms.

_____ 18. Resolution of Necessity. Submit legal description and plat for review and acceptance. Refer to RWM6 and DPM4.

_____ 19. Hardship or Protection Maps. Submit for review and acceptance. Refer to RWM6 and DPM4.

CALTRANS DISTRICT 4

RIGHT OF WAY ENGINEERING, SURVEYS AND MAPPING SERVICES CHECKLIST FOR SPECIAL FUNDED PROJECTS

PROJECT: SR 37/MARE ISLAND INTERCHANGE

E.A: _____ DATE: OCTOBER 2000

__X__ 20. Retracement Record of Survey, showing horizontal control, existing engineer's centerline, R/W and land net or corner record(s), if either are required by the LS Act. Submit for review. Record of Survey is also for pre-construction monument perpetuation and shall be filed with the County Recorder. Project R/W requirements and R/W monumentation shall be shown on the post-construction Record of Survey. See example. Refer to SM.

__X__ 21. Construction Survey Control Map (CSCM). See example. Submit for review and acceptance.

__X__ 22. Survey Engineer's File (SEF). See example. Shall be in IGRDS format or compatible. Submit for review and acceptance. Refer to "Project Development Procedures Manual" (PDPM). Field survey required for conform areas. Label components of SEF and include index sheets.

__X__ 23. Monumentation layout for project alignment monuments (discs and/or type "D") that will be included in the P.S.&E. Submit for review and acceptance. P.S.&E. review comments will request that the Special Provisions provide for the contractor to safeguard and perpetuate monuments.

__x__ 24. Construction Staking. Attend pre-construction meeting. Refer to "Blue Memo", Section 2-05 (Construction Staking Responsibility Checklist), "Staking Information" dated 4/1/92 and 1/96, and SM.

__X__ 25. Revise Hardcopy Map, if revisions during construction make it necessary.

_____ 26. Revise Appraisal Maps, if revisions during construction make it necessary.

__x__ 27. R/W Record Maps. Submit for review and acceptance. Refer to DPM4 and RWM6.

__x__ 28. Transfer document and legal descriptions. Submit for review and acceptance.See format example. Refer to RWM6.

__x__ 29. Provide policy of title insurance in the name of the State of California.

_____ 30. Caltrans' Design to review and find acceptable all changes made subsequent to accepted Appraisal Maps.

CALTRANS DISTRICT 4

RIGHT OF WAY ENGINEERING, SURVEYS AND MAPPING SERVICES CHECKLIST FOR SPECIAL FUNDED PROJECTS

PROJECT: SR 37/MARE ISLAND INTERCHANGE

EA: _____ DATE: OCTOBER 2000

__x__ 31. Complete monumentation. Prepare and submit for review and acceptance post-construction Record of Survey (Monumentation Map) including monument perpetuation, R/W monuments and project alignment monuments. Submit written request to Caltrans Design for issuance of alpha-numeric identifications to be stamped on the project alignment monuments and depicted on the Record of Survey. Refer to SM.

__X__ 32. Joint Use Agreements and/or Consent to Common Use Agreements. Submit for review and acceptance. Refer to RWM13.

__X__ 33. Quitclaim and/or vacate existing easements within the Right of Way.

__X__ 34. Additional easements required resulting from construction.

__X__ 35. Public notice as required per Section 83 of the Streets and Highway Code.

__X__ 36. As-built plans and survey notes of new horizontal control . Show all new control on post-construction Record of Survey.

__X__ 37. Data for closed deed files, including: title reports, vesting deeds, policy of title insurance, calculations, plats and pertinent correspondence.

__X__ 38. Relinquishments and/or vacations. Submit for review and acceptance. Refer to DPM4 and PDPM.

__X__ 39. Identify excess land properties. Prepare and submit Director's Deeds and plats for review and acceptance. Refer to DPM4 and RWM6.

__X__ 40. Right of way decertification. Refer to PDPM.

__X__ 41. All Right of Way maps, including Records of Survey, when acceptable, will be submitted for archiving on signed and sealed photo mylars, double matte, reverse reading, 4 mil thickness and also electronic files in MicroStation 95 .dgn format.

ENVIRONMENTAL CHECK LIST

Attachment H

APPENDIX G

Environmental Checklist Form

1. Project title: State Route 37/Mare Island Interchange

2. Lead agency name and address:
City of Vallejo
555 Santa Clara Street
Vallejo, CA 94590

3. Contact person and phone number:
Ms. Ann Meredith, City of Vallejo
(707) 648-4328

4. Project location: From 400 meters west of Walnut Avenue overcrossing to 1,000 meters east of Walnut Avenue overcrossing.

5. Project sponsor's name and address:
City of Vallejo

6. General plan designation: Mare Island Specific Plan - North Light Industry

7. Zoning:

8. Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)
See attached

9. Surrounding land uses and setting: Briefly describe the project's surroundings:
Project is bounded by the former Mare Island Naval Shipyard to the south and Dutchman Slough to the north and the Napa River and Mare Island Strait to the east.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

Description of SR37/Mare Island Interchange Project

The SR37/Mare Island Interchange Project proposes to modify the existing State Route 37/Mare Island Interchange in the City of Vallejo in Solano County. The scope of the project is to add capacity to the interchange and to revise the overpass so that it will be properly aligned with the proposed internal roadway system on Mare Island. The project is being undertaken in anticipation of the buildout of Mare Island following its closure as a military facility.

The proposed project involves modifications to three portions of the interchange:

a. Modifications to the southern end of the overcrossing bridge to facilitate alignment with a proposed revision in on-island circulation
b. Modifications to the eastbound on-ramp to accommodate future growth in traffic leaving the island in the PM peak hour.
c. Modifications to the westbound off-ramp to accommodate future growth in traffic entering the island in the AM peak hour

As discussed in the PSR, the project, has been developed so that construction can occur in three sequential phases. Construction on Alternative 2, Phase A is proposed to commence in 2001. Construction of the other phases has not been programmed at this time; the timing of implementation of the remaining phases will depend on a combination of traffic demand and financing considerations.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology /Soils
☐ Hazards & Hazardous Materials	☐ Hydrology / Water Quality	☐ Land Use / Planning
☐ Mineral Resources	☐ Noise	☐ Population / Housing
☐ Public Services	☐ Recreation	☐ Transportation/Traffic
☐ Utilities / Service Systems	☐ Mandatory Findings of Significance	

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions

or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature	Date
Signature	Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation

Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:
   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance

SAMPLE QUESTION

Issues:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects.				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒
III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒ cosntruction dust	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒
IV. BIOLOGICAL RESOURCES -- Would the				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒
V. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?	☐	☐	☐	☒

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
MATERIALS B Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒
VIII. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
discharge requirements?				
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☒	☐	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒
IX. LAND USE AND PLANNING - Would the				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
X. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒
XI. NOISE B Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
airport, would the project expose people residing or working in the project area to excessive noise levels?				
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
XII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
XIII. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project=s projected demand in addition to the provider=s existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project=s solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒
XVII. MANDATORY FINDINGS OF SIGNIFICANCE --				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☒
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

DRAFT COOPERATIVE AGREEMENT

Attachment I

STANDARD FORMAT

(Dist.-Co.-Rte.-P.M.)
(Location)
(Source Code - E.A. No.)
District Agreement No. _____

COOPERATIVE AGREEMENT

THIS AGREEMENT, ENTERED INTO ON (Execution Date), is between the STATE OF CALIFORNIA, acting by and through its Department of Transportation, referred to herein as STATE, and

CITY OF _____, a body politic and a municipal corporation of the State of California, referred to herein as CITY.

OR

_____COUNTY FLOOD CONTROL DISTRICT, a public corporation, referred to herein as DISTRICT.

OR

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

RECITALS

1. (Describe authority to enter into Agreement)
2. (Describe condition and need for improvement)
3. (General description of PROJECT)
4. (Describe benefits to STATE, when applicable)
5. (Describe benefits to local agency, when applicable)
6. (Describe desires of parties hereto as to responsibilities)
7. (Describe desire to cooperate and participate in Agreement)

District Agreement No. _____

SECTION I

STATE AGREES:

Section I contains provisions which define STATE obligations. Each specific area of responsibility should be covered by a separately numbered agreement clause as appropriate for clarity.

Examples of specific areas or work which may be incorporated in this Section include but are not limited to the following:

1. Work to be performed by STATE, such as design engineering, construction engineering, award of contract, environmental services, right-of-way services, utility relocation, issue permits, maintenance, etc.

2. Division of costs, including design and construction engineering costs, environ mental services, deposit of funds, and method of computing final costs. The method of computing the amount of a lump sum contribution by STATE if this method is used.

3. Return of unused funds or bill for payment of additional funds due STATE.

4. Accounting of funds and inspection of records.

5. Maintenance responsibility.

6. STATE's maximum cost of the joint facilities to be installed. Indicate STATE may, at its discretion, in writing, increase said amount.

SECTION II

CITY AGREES:

Section II contains provisions which define CITY obligations. Each specific area of responsibility should be covered by a separately numbered agreement clause. Examples of specific areas of work which may be incorporated in this section are similar to those in Section I. Indicate CITY's maximum obligation and that CITY may, at its sole discretion, in writing, increase said amount.

District Agreement No. _____

SECTION III

IT IS MUTUALLY AGREED:

Section III contains provisions related to mutual obligations or understandings. Examples of clauses include, but are not limited to the following:

1. Obligation of STATE is contingent upon appropriation of resources by the Legislature and the allocation of resources by the California Transportation Commission.
2. If Federal funds are involved, all applicable procedures relating to the use of such funds will apply.
3. Add clauses which will clarify the intent or understanding of the parties involved; (i.e., overhead assessments for design and construction engineering costs will be in accordance with STATE's standard accounting procedures, etc.).
4. If local public entity is doing the work, describe encroachment permit procedures.
5. Resident Engineer's duties and authority.
6. High/low bid clause.
7. Termination rights, including provisions for payment of costs up to date of termination.
8. Responsibilities for utility work and costs if utilities conflict with construction of PROJECT.
9. Ownership clauses should be included if facilities are installed.
10. Maintenance liability.
11. If work requested by CITY alters drainage or other conditions outside of the right of way, include a provision that CITY will hold STATE harmless from such changed conditions.
12. CITY indemnifies and holds harmless STATE.
13. STATE indemnifies and holds harmless CITY.
14. When the Agreement is to terminate, give definite termination date.

District Agreement No. _____

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

(Name in Capitals)
Director of Transportation

By: _____
District Director

Approved as to form and procedure:

_____
Attorney
Department of Transportation

Certified as to funds:

_____
District Budget Manager
Certified as to procedure:

_____
Accounting Administrator

(CITY/COUNTY) of _____

By: _____
(Mayor)
(Chairman, Board of Supervisors)

Attest: _____
(City Clerk)
(Clerk of the Board of Supervisors)

* Approved as to form :
* Approved as to form and procedure :

_____
Attorney (or Counsel)

* * I hereby certify upon my own personal knowledge that budgeted funds are available for the period and the purpose of payment to STATE stated in the Agreement

_____
Fiscal Officer

* **(Optional- local agency has discretion to choose one of two shown)**
* * **(Use primarily when STATE is doing reimbursed work on locally funded projects or work on joint funded cooperative projects)**

INITIAL SITE ASSESSMENT CHECK LIST

Attachment J

Initial Site Assessment (ISA) Checklist

Project Information

District 04 County ___ Route 37 Kilometer Post (Post Mile) 11.4/13.4 EA _____

Description Route 37/Walnut Ave. interchange encompassing 400 meters west of Walnut Ave. overcrossing to 1,000 meters east of Walnut Ave. City of Vallejo, Solano County.

Is the project on the HW Study Minimal-Risk Projects List (HW1)? No

Project Manager Ms. Katie Yim phone #510-286-5658

Project Engineer _____ phone # _____

Project Screening

Attach the project location map to this checklist to show location of all know and/or potential HW sites identified.

1. Project Features: New R/W? X Excavation? X Railroad Involvement? No

   Structure demolition/modification? _____ Subsurface utility relocation? unknown

2. Project Setting State Highway

   Rural or Urban Rural

   Current land uses Existing roadway and right of way

   Adjacent land uses Industrial / commercial
   (industrial, light industry, commercial, agricultural, residential, etc.)

3. Check federal, State, and local environmental and health regulatory agency records as necessary, to see if any known hazardous waste site is in or near the project area. If a known site is identified, show its location on the attached map and attach additional sheets, as needed, to provide pertinent information for the proposed project.

4. Conduct Field Inspection. Date 1/19/01 Use the attached map to locate potential or known HW sites.

   STORAGE STRUCTURES / PIPELINES:

   Underground tanks No Surface tanks No

   Sumps No Ponds No

   Drums No Basins No

   Transformers Yes Landfill No

   Other _____

Initial Site Assessment (ISA) Checklist
(continued)

CONTAMINATION: (spills, leaks, illegal dumping, etc.)

Surface staining No Oil sheen No

Odors No Vegetation damage No

Other

HAZARDOUS MATERIALS: (asbestos, lead, etc.)

Buildings No Spray-on fireproofing No

Pipe wrap No Friable tile No

Acoustical plaster No Serpentine No

Paint No Other

5. Additional record search, as necessary, of subsequent land uses that could have resulted in a hazardous waste site. Use the attached map to show the location of potential hazardous waste sites.

6. Other comments and/or observations: The property located south of alignment is the former Mare Island Shipyard operation as a military installation since the mid-1800's. Please refer to attached documentation (letter report and background information) for a more detailed summary of potential hazardous waste sites in the project vicinity.

ISA Determination

Does the project have potential hazardous waste involvement? yes If there is known or potential hazardous waste involvement, is additional ISA work needed before task orders can be prepared for the Investigation? yes If "YES," explain; then give an estimate of additional time required: See attached letter report-Approximately 3-4 weeks after acquiring available Mare Island environmental documentation. It is assumed that a full Phase 1 environmental site assessment will be completed during the next phase of the project.

A brief memo should be prepared to transmit the ISA conclusions to the Project Manager and Project Engineer.

ISA Conducted by Mr. William Larkin Date 2/12/01