

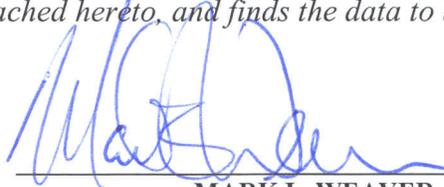
**PROJECT STUDY REPORT - PROJECT REPORT**  
**To**  
**Provide Project Approval**

On Route 113 in Solano County

Between the Route 113/80 Separation (West) over Route 80

And the Eastbound Connector Overcrossing to Route 80

*I have reviewed the right of way information contained in this Project Study Report-  
Project Report and the "R/W Data Sheet attached hereto, and finds the data to be  
complete, current and current:*



**MARK L. WEAVER**  
DEPUTY DISTRICT DIRECTOR  
RIGHT-OF-WAY and  
LAND SURVEYS

APPROVAL RECOMMENDED:



**JAMES HSIAO**  
PROJECT MANAGER

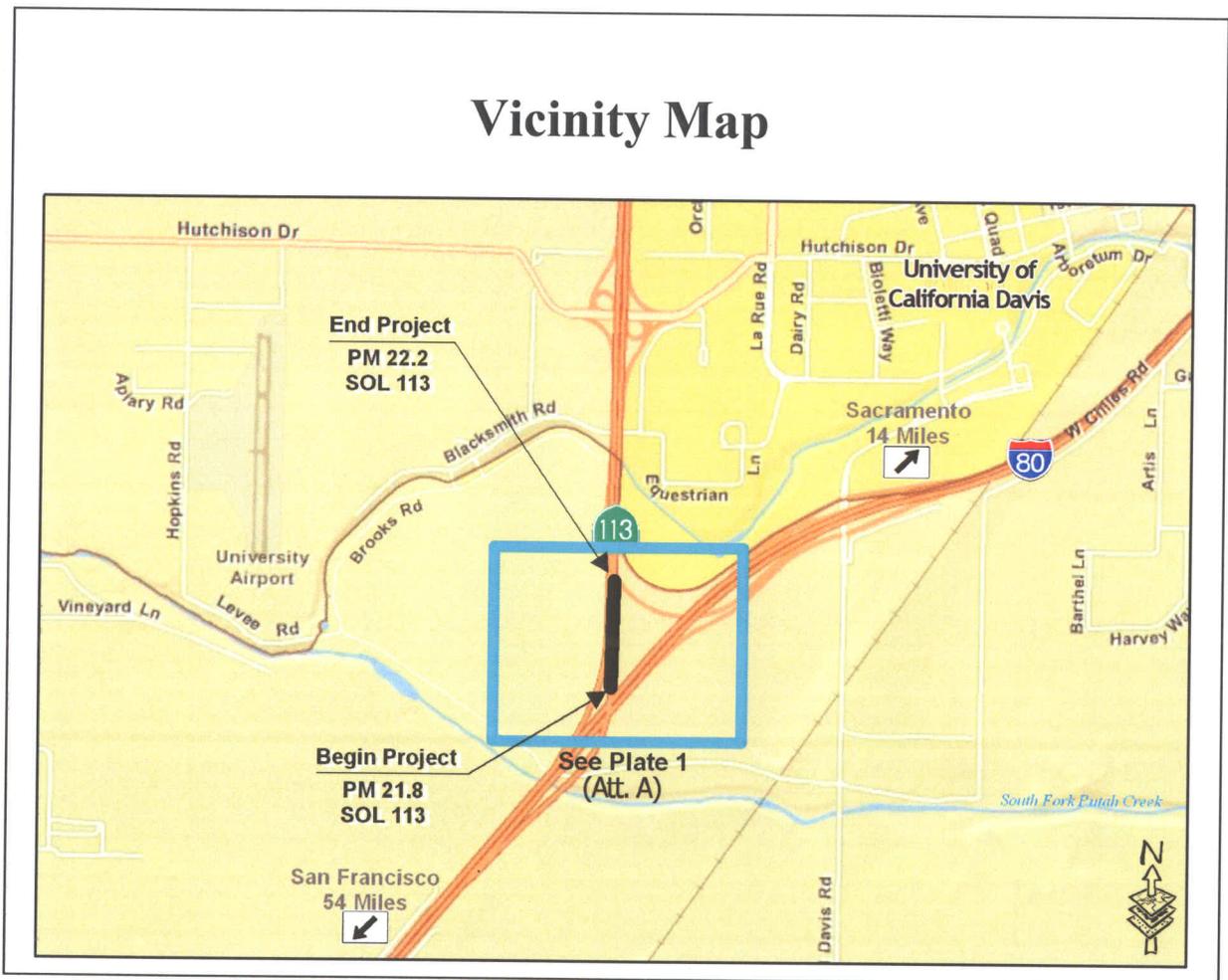
APPROVED:



**BIJAN SARTIPI**  
DISTRICT DIRECTOR

9/22/11  
DATE

## Vicinity Map



On Route 113 in Solano County  
Between the Route 113/80 Separation (West) over  
Route 80  
And the Eastbound Connector Overcrossing to Route  
80

04-SOL-113-PM R21.8/R22.2  
201.010  
04-696-0G750K  
September 2011

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

*Hugh Converse*  
\_\_\_\_\_  
**HUGH CONVERSE - Registered Civil Engineer**

*9-14-11*  
\_\_\_\_\_  
**DATE**



Reviewed by:

*[Signature]*  
\_\_\_\_\_  
**PATRICK K. PANG - OFFICE CHIEF  
OFFICE OF ADVANCE PLANNING**

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## 1. INTRODUCTION

The proposed project, consisting of barrier protection, is located on State Route (SR) 113, between PM R21.8 and PM R22.2, adjacent to the campus of the University of California, Davis and near the City of Davis in Solano County, beginning immediately north of the Route 113/80 separation (West) from eastbound Route 80. The plan (see Attachment A) would close a gap in barrier protection by the construction of approximately 970 feet of single thrie beam barrier along the left edge of the northbound roadway and 700 feet of double thrie beam within the median barrier joining an existing double thrie beam barrier at the northern limit of the project, near the connector overcrossing from southbound SR 113 to eastbound Route 80. Work items specified are described within this document and listed in the Project Cost Estimate (Attachment B).

<b>Project Limits</b>	04-SOL-113-PM R21.8/R22.2
<b>Number of Alternatives:</b>	2
<b>Alternative Recommended for Programming:</b>	1
<b>Programmed or Proposed Capital Construction Costs</b>	\$ 378,000 (escalated to FY 12/13 midyear value)
<b>Programmed or Proposal Capital Right of Way Costs:</b>	\$5,000
<b>Funding Source:</b>	SHOPP 201.010
<b>Type of Facility</b>	Highway (controlled access)
<b>Number of Structures:</b>	None
<b>Anticipated Environmental Determination/Document</b>	Categorical Exemption (CE)
<b>Legal Description</b>	Thrie Beam Barrier Installation
<b>Project Category</b>	4B

## 2. RECOMMENDATION

It is recommended that this Project Study Report/Project Report (PSR/PR) be approved and authorization be given for the preparation of PS&E.

### **3. BACKGROUND**

This project location was identified for investigation in the 2007 Median Barrier Monitoring Report; subsequently, the District responded with a recommendation to initiate a safety project to close the existing barrier gap. The project begins at the end of SR 113/ Route 80 separation (Bridge No. 23-177). The existing bridge, which carries northbound traffic on SR113 and which was built in 1974, has a 40-foot roadbed with two 12 ft. lanes, 6 ft. shoulder on the left, and 8 ft. shoulder on the right. The existing bridge railing is a modified barrier railing Type 9. There is no existing barrier on the roadway beyond the bridge railing until around PM R22.13, where there is an existing double thrie beam barrier crash cushion end treatment in the median with a double thrie beam barrier protecting the bridge column for the connector overcrossing (Bridge No. 23-179) from southbound SR 113 to eastbound Route 80.

### **4. PURPOSE AND NEED STATEMENT**

#### **Need:**

Physical measures are proposed along SR 113 just north of its connection with Route 80 near Davis, to prevent errant northbound vehicles from leaving the roadway and descending down slope, and, on flatter ground, to prevent northbound and southbound vehicles from crossing the median into oncoming traffic within the project limits where there is no existing barrier. Specifically, metal thrie beam barriers are proposed for the entire segment, a portion of which would be protected by a single thrie beam barrier along the edge of the left shoulder of the northbound connector with the balance protected by double thrie beam barrier within the roadway median.

#### **Purpose:**

The overarching project purpose is to improve safety within the project area by protecting vehicles from abrupt off road descents and collisions. Completion of the project will, when joined to an existing barrier at the north end of the project, result in a protective barrier stretching 1.08 miles from the Route 113/80 separation (West) to just north of Hutchinson Drive.

**5. DEFICIENCIES**

No geometric design deficiencies exist in this area. Both the left and right shoulder widths (5 feet wide and 10 feet wide, respectively) meet current standards. Horizontal-curve radii, super elevations and sight distances also meet design standards. Two injury accidents, both with overturning, occurred in the segment during the three year period ending September 30, 2009. The rate of accident occurrence is below the average statewide accident rate. Applicable TASAS statistics are shown below.

*Actual Accident Rates			*Average Accident Rates		
Fatal	Fatal + Injury	Total	Fatal	Fatal + Injury	Total
0.000	0.11	0.11	0.010	0.16	0.45

\* Accident rates above are expressed as # of accidents/million vehicle miles

No. of Accidents: 2      Type of Collision: Overturning

Primary Collision Factors: 1 (50%) Influence of Alcohol  
 1 (50%) Improper Turn

Under an ongoing statewide effort to identify, rank and address barrier project needs, this project qualifies for inclusion by virtue of: (a) its potential for crossover and over-the embankment accidents; (b) the relatively high traffic volume - - 39,500 ADT in 2009; and (c) a stated policy to promote appropriate closures of existing barrier gaps.

**6. CORRIDOR AND SYSTEM COORDINATION**

The project is consistent with State and regional transportation documents for the SR 113 corridor.

SR 113 is a north-south highway that runs from south of Yuba City at SR 99 to around 10 miles (16 km) from Rio Vista at SR 12. The SR 113 corridor is an important transportation facility for the movement of people and goods in eastern Solano County. This mainly rural highway serves a mixture of local, interregional, and tourist traffic. With few north-south highways in the area, SR

113 serves as an important connecting route between Interstate 80 (designated as Route 80 elsewhere in this report) and Interstate 5 and is a critical connector between communities of metropolitan Sacramento, the eastern Bay Area, and the Central Valley.

## **7. ALTERNATIVES**

### **7A. VIABLE ALTERNATIVE**

Alternative 1: Build Alternative.

The project would close a gap of approximately 1,670 feet extending northward from the SR 113 northbound overcrossing connector from Route 80 eastbound. The barrier would be comprised of: (1) a single thrie beam barrier, along the left edge of the elevated embankment portion of the northbound roadway; and, (2) a double thrie beam barrier, traversing the median and connecting to an existing double thrie beam median barrier which extends approximately 0.76 miles further to the north.

This alternative, which is the recommended project, would as described above, install metal thrie beam barrier structures to reduce potential accident severity for vehicles traveling in both the northbound and southbound directions on this segment of SR 113. No non-standard design features have been identified within the project limits.

### **7B. REJECTED ALTERNATIVE**

Alternative 2: No-Build Alternative.

This proposal is not an acceptable solution since no safety improvements would be implemented. The potential for vehicle crossover accidents would remain along the northerly part of the project and the possibility of northbound vehicles leaving the roadway and traveling down a steep slope would remain along the southerly portion of the area.

## **8. CONSIDERATIONS REQUIRING DISCUSSION**

### **A. Hazardous Waste:**

Because of the limited area and scope of the project, an initial site assessment (ISA) by the District 4 Office of Environmental Engineering is not deemed

necessary. During the design phase (PS&E) of the project, the office will provide an edited standard special provision (SSP 07-0330) for the installation work that discloses the presence of aerially-deposited lead (ADL) in the soil and dictates how the disturbed soil must remain in the immediate area of the new barrier railing posts, if ADL is found to be present.

**B. Value Analysis:**

The project cost is less than \$25 million; therefore, no value analysis is required.

**C. Resources Conservation:**

Minimal conservation of non-renewable resources is involved. The existing terminal section of the adjacent double thrie beam barrier will have to be dismantled to allow connection to the new double thrie beam section. Depending on the condition of the existing terminal section, some galvanized beam members may be suitable for reuse. In any event, the dismantled barrier section and appurtenant hardware are recyclable as scrap metal.

**D. Right of Way:**

General - A Right of Way Data Sheet has been prepared based on the scope of work furnished by the Office of Advance Planning. Estimated cost information is contained in the Right of Way Data Sheet, Attachment D of this report. There is no new right of way requirement for this project.

Railroad -There is no railroad involvement on this project.

Utilities - Utility owners located within the project limits are PG&E and AT&T. Utility verification will be necessary during the PS&E phase.

**E. Air Quality Conformity:**

This project is exempt from an air quality conformity determination; it will not increase highway capacity, traffic or congestion and therefore will not affect air quality in the area.

**F. Title VI Issues:**

Since there is no impact on access for low mobility and minority groups, there are no applicable Title VI requirements.

**9. OTHER CONSIDERATIONS AS APPROPRIATE**

**A. Permits and Agreements:**

None: there are no permits or agreements associated with this project.

**B. Transportation Management Plan:**

A Transportation Management Plan (TMP) will be required for this project. The TMP is a special program that will be implemented during construction to minimize and prevent delay and inconvenience to the traveling public. The proposed construction and improvements will include the addition of single and double thrie beam barrier that will require shoulder closures. The TMP for the project will be developed and refined during the PS&E and final design phases, supported by detailed traffic studies to evaluate traffic operations. The TMP may include press releases to notify and inform motorists, business, community groups, local entities, emergency services, and politicians of upcoming closures. Various TMP elements such as portable Changeable Message Signs and CHP Construction Zone Enhanced Enforcement Program (COZEEP) may be utilized for placement of K-rails for the safety of the workers. Preliminary TMP elements and costs are indicated in the TMP Data Sheets in Attachment E.

**C. Storm Water:**

A short form of the Storm water Data Report (SWDR) is provided as Attachment F. This project has a soil disturbance totaling less than 0.25 acre. During construction, a Water Pollution Control Program will be implemented pursuant to the National Pollutant Discharge Elimination System requirement; this will include a Standard Special Provision for temporary-construction-site Best Management Practices. In addition, all disturbed areas will receive permanent erosion control treatment.

**D. Drainage:**

There are several existing drainage inlets within the project area. These will be protected during construction. In addition, in the area adjacent to the new single thrie beam barrier, it is proposed that the existing dike along the edge of the left shoulder be removed, rebuilt and extended with a Asphalt Concrete Type F dike; also, two existing entrance tapers would be replaced to direct water flowing along the shoulder to new down slope drains, replacing existing 8" RCP drains with 12" RCP drains.

**E. Vegetation Control:**

Vegetation control will be placed under and immediately adjacent to the barrier to reduce recurring maintenance requirements. Several options are available; including placement of minor concrete paving, weed-control matting and spray-on asphalt composition. The latter method is proposed for use by this report due to lower overall life-cycle costs. (The spray-on asphalt composition method, although non-standard, has been successfully utilized by District 4 and is accepted by HQ, as noted in the CT Landscape Architecture Roadside Toolbox.)

**10. COMMUNITY INVOLVEMENT**

The relatively isolated location of the project and its limited impact are expected to preclude a requirement for direct community involvement.

**11. ENVIRONMENTAL DETERMINATION/DOCUMENT**

This project has no economic, social, or environmental impacts, and is Categorically Exempt under Class 1 of the California Environmental Quality Act (CEQA) guidelines. The Categorical Exemption determination document (CE) is provided as Attachment C.

**12. FUNDING****12A. CAPITAL COST****Capital Cost Estimate for 2012 SHOPP (Escalation @5%/yr)**

<b>Fiscal Year</b>	<b>Right of Way Capital</b>	<b>Construction Capital</b>
<b>Current (FY 11/12)</b>		\$360,000
<b>FY 12/13</b>	\$5,000	\$378,000

**12B. CAPITAL SUPPORT ESTIMATE****Capital Support Estimate for 2012 SHOPP**

	<b>Design 1 Phase</b>		<b>Right of Way 2 Phase</b>		<b>Construction 3 Phase</b>		<b>Total</b>
	<b>Dist</b>	<b>DES</b>	<b>Dist</b>	<b>DES</b>	<b>Dist</b>	<b>DES</b>	
	Estimated PY's	0.5		0.2		0.6	
Estimated PS \$'s	100,000		30,000		120,000		250,000
Estimated PYE \$'s (\$1000's)							
Total \$'s	100,000		30,000		120,000		250,000

\* PY – Person Year = 1 person for 1 year = 1758 Caltrans labor hours

\*\*PS – Project Support Cost in \$ units

\*\*\*PYE – Person-Year equivalent = equivalent support cost for consultant labor, if applicable

\*\*\*\* Estimate based on percentages to reflect input from Caltrans functional units in final report

Dist = District Personnel    DES = Design Engineering Services (Caltrans Structures Dept), if applicable.

**13. SCHEDULE**

<b>HQ Milestones</b>	<b>Delivery Date (Month, Day, Year)</b>
Project PS&E	3-01-13
Right of Way Certification	5-01-13
Ready to List	6-01-13
Approve Contract	10-01-13
Contract Acceptance	6-01-14
End Project	12-01-14

**14. FHWA COORDINATION**

No FHWA action is required for this project. The project is not part of the federally-designated National Highway System and does not propose change controlling geometric and capacity standards that would trigger federal involvement.

**15. DISTRICT CONTACTS**

James Hsiao, Project Manager.....(510) 622-8810  
 Patrick K. Pang, Chief, Advance Planning.....(510) 286-5566  
 Warwick Wang-Tak Cheung, Branch Chief, Advance Planning..... (510) 622-0155  
 Hugh Converse, Project Engineer, Advance Planning..... (510) 286-6003  
 Dwight Caldwell, Traffic Safety..... (510) 286-6474  
 Erwin Madlangbayan, Traffic Safety.....(510) 622-0153  
 Norman Gonsalves, Storm Water Coordinator..... (510) 286-5930  
 Melanie Hunt, R/W Way Project Coordination ..... (510) 286-5495  
 Lily Chan, Engineering Services II-Hydraulics ..... (510) 622-1770  
 Chuck Morton, Environmental Planner, Maintenance..... (510) 286-5016

## 16. PROJECT REVIEWS

Field Review	<u>Hugh Converse, Anwer Keval</u>	Date	<u>3/30/11</u>
District Maintenance	<u>Steve Kakihara, Mariko Roberts</u>	Date	<u>3/16/11</u>
District Safety Review	<u>Erwin Madlangbayan</u>	Date	<u>3/14/11</u>
Constructability Review	<u>Taher Sarwary</u>	Date	<u>3/10/11</u>
HQ Design Coordinator	<u>Gordon Brown</u>	Date	<u>3/08/11</u>
Project Manager	<u>James Hsiao</u>	Date	<u>4/29/11</u>
District SHOPP Program Advisor	<u>Roland Au-Yeung</u>	Date	<u>6/20 /11</u>

## 17. ATTACHMENTS

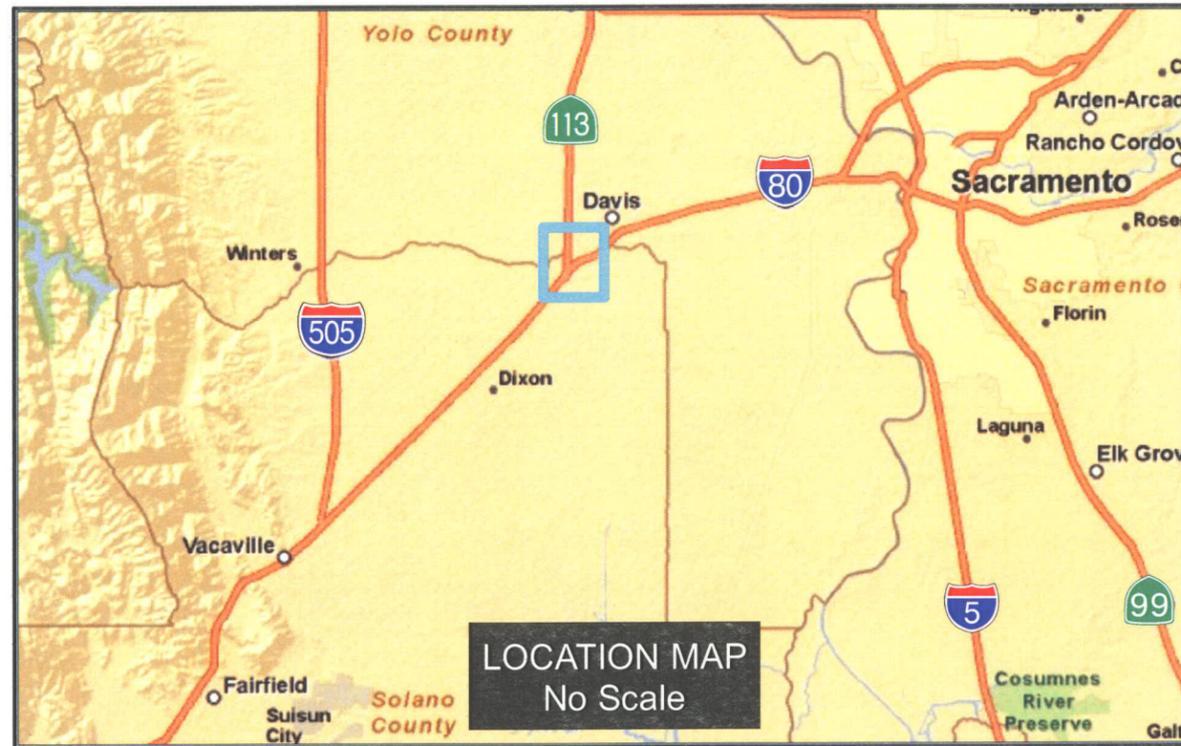
- A. Layout, Plans, and Typical Cross Section
- B. Preliminary Cost Estimate
- C. Environmental Document (CE)
- D. Right of Way Data Sheet
- E. Transportation Management Plan (TMP) Data Sheet
- F. Storm Water Data Report (SWDR)
- G. Risk Management Plan

**LOCATION MAP, LAYOUT, PLANS  
AND TYPICAL CROSS SECTION**

**ATTACHMENT A**

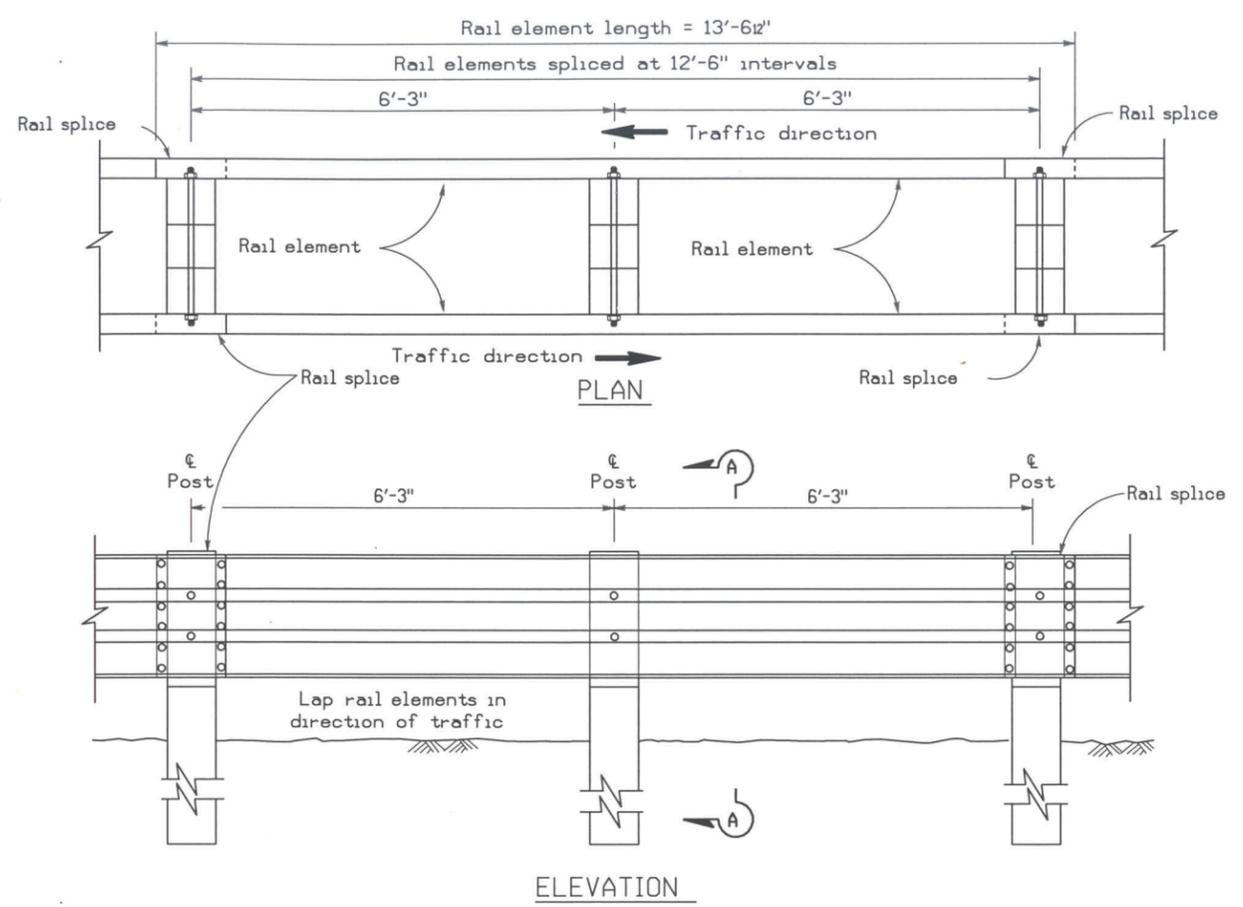


TABLE OF PROJECT FEATURES			
SINGLE (STB) / DOUBLE (DTB) THRIE BEAM BARRIER			
SEGMENT	TYPE	LENGTH	COMMENTS
A	STB	970'	Located at edge of NB 113 roadway; includes 507' of new dike and two replacement drainage entrance tapers with 12" CSP piping downslope
B	DTB	320'	Diverges from edge of NB roadway into median at shallow plan angle (less than 1:15) to join segment C
C	DTB	328'	Located in median, paralleling roadway
D	DTB	52'	Requires removal of existing terminal structure and MBGR transition prior to construction
Subtotals	STB	970'	See Plates 2 and 3 for further details; all barrier segments require vegetation control
	DTB	700'	
Total Barrier Length		1,670'	

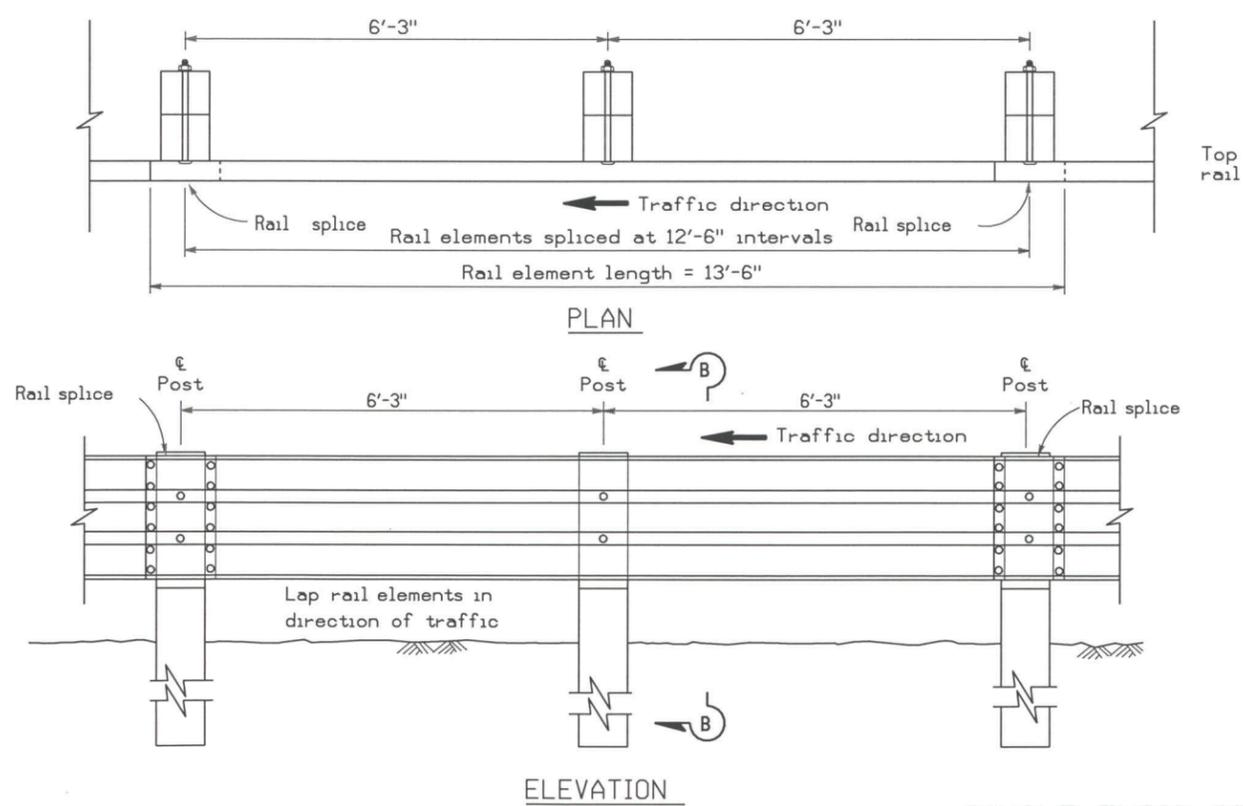


**PLAN & FEATURES**  
 California Dept. of Transportation - District 4  
**BARRIER CONSTRUCTION PROJECT**  
**EA 0G750K**  
 Solano County - Route 113 - PM R21.8/R22.2  
**PLATE 1**

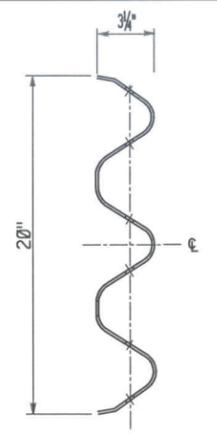
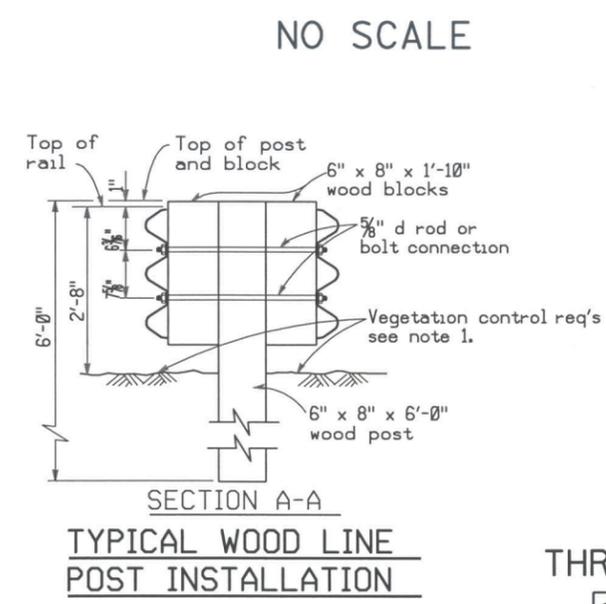
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 CONSULTANT FUNCTIONAL SUPERVISOR  
 EtGtrans



**DOUBLE THRIE BEAM BARRIER**  
(Wood post and blocks)



**SINGLE THRIE BEAM BARRIER**  
(Wood post and blocks)



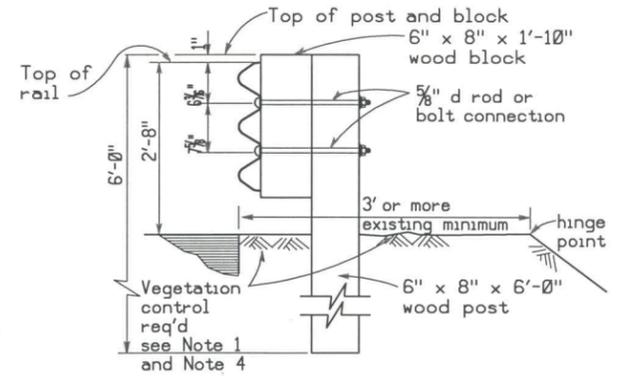
**RAIL ELEMENT SECTION**  
**FOR SINGLE & DOUBLE THRIE BEAMS**

**THRIE BEAM SCHEDULE: LAYOUT PLAN ON PLATE 1**

SEGMENT	LENGTH	TYPE	COMMENT
A	970'	Single thrie beam (STB)	Located along edge of northbound lanes.
B	320'	Double thrie beam (DTB)	Located in median, diverges from edge of northbound lanes.
C	328'	Double thrie beam (DTB)	Located in median paralleling roadway.
D	52'	Double thrie beam (DTB)	Remove existing terminal (crash cushion) section before installation of new DTB.

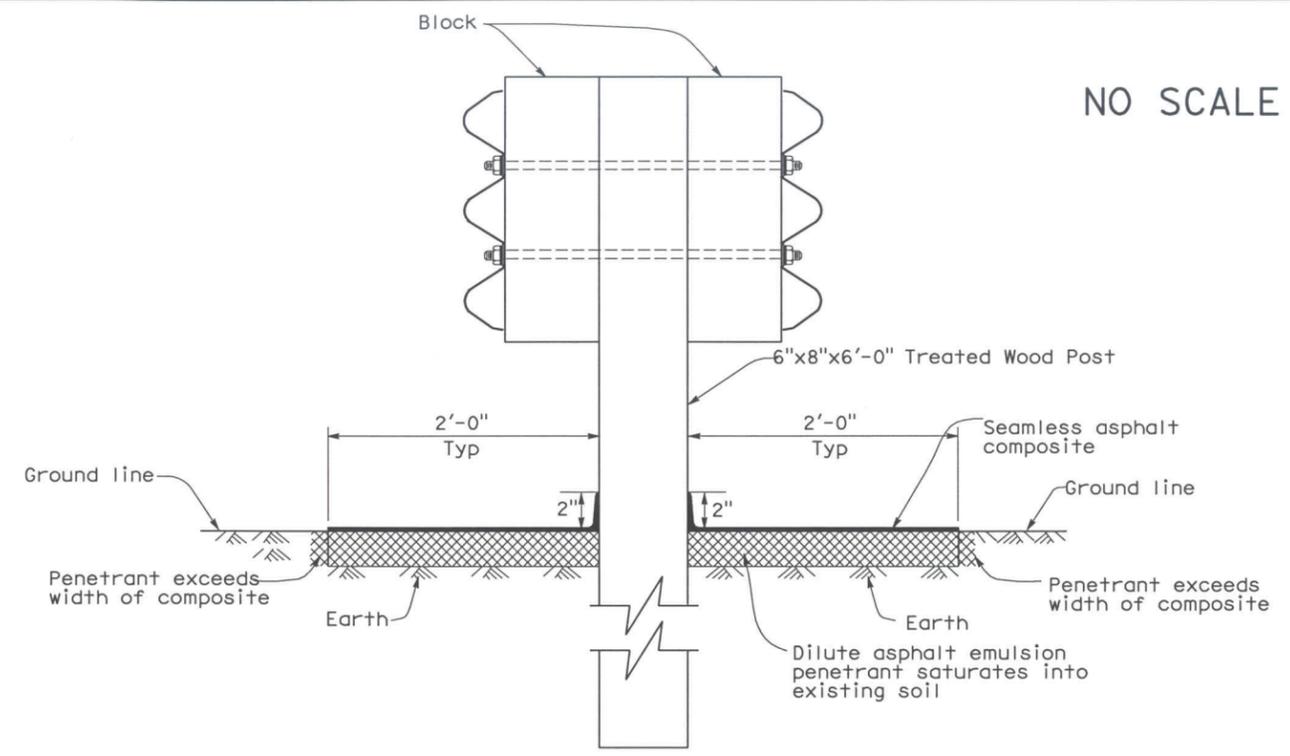
**NOTES:**

1. Vegetation control required below and adjacent to barrier - see Plate 3.
2. For detailed thrie beam features see the following standard plans as follows: plans, elevations, and sections - Std. Plan A78A; hardware posts and blocks - Std. Plans A78C1 and A78C2; for junction with existing barrier - Std. Plans A78D1 and A78E3; for STB connection with bridge wall - Std. Plan A78C.
3. Junction between segments A and B and segments B and C will require parabolic flare offsets similar to Std. Plan A77F3.
4. For dike positioning (along southerly 507 feet of segment A) see Std. Plan A77C4; also note Section B-B (1) on Plate 3



**California Dept. of Transportation - District 4**  
**BARRIER CONSTRUCTION PROJECT**  
 EA OG750K  
  
**THRIE BEAM BARRIER**  
**BARRIER RAILING SECTION:**  
**-WOOD POST WITH WOOD BLOCK**  
 Solano County - Route 113 - PM R21.8/R22.2

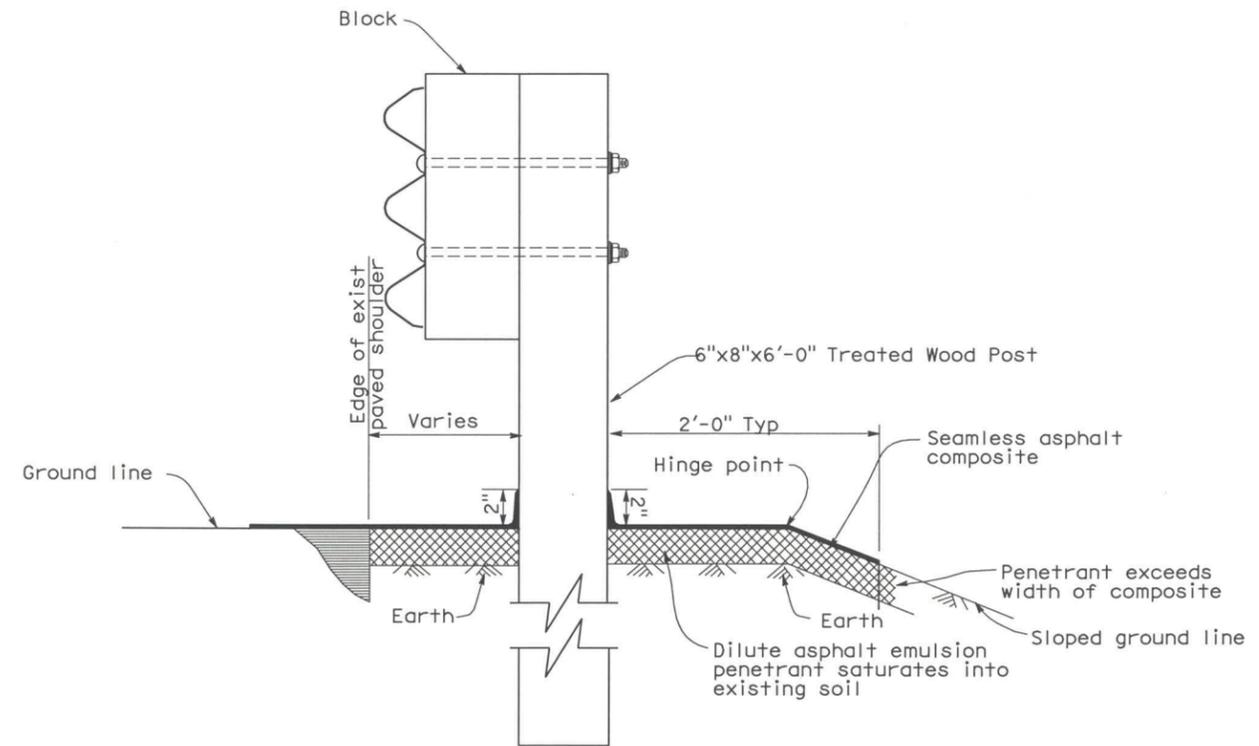
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 CONSULTANT FUNCTIONAL SUPERVISOR  
 Et. Galters



**SECTION A-A**

(Same as Section A-A on Plate 2)

**VEGETATION CONTROL - DOUBLE THRIE BEAM BARRIER**



**SECTION B-B without dike**

(Corresponds to Section B-B on Plate 2)

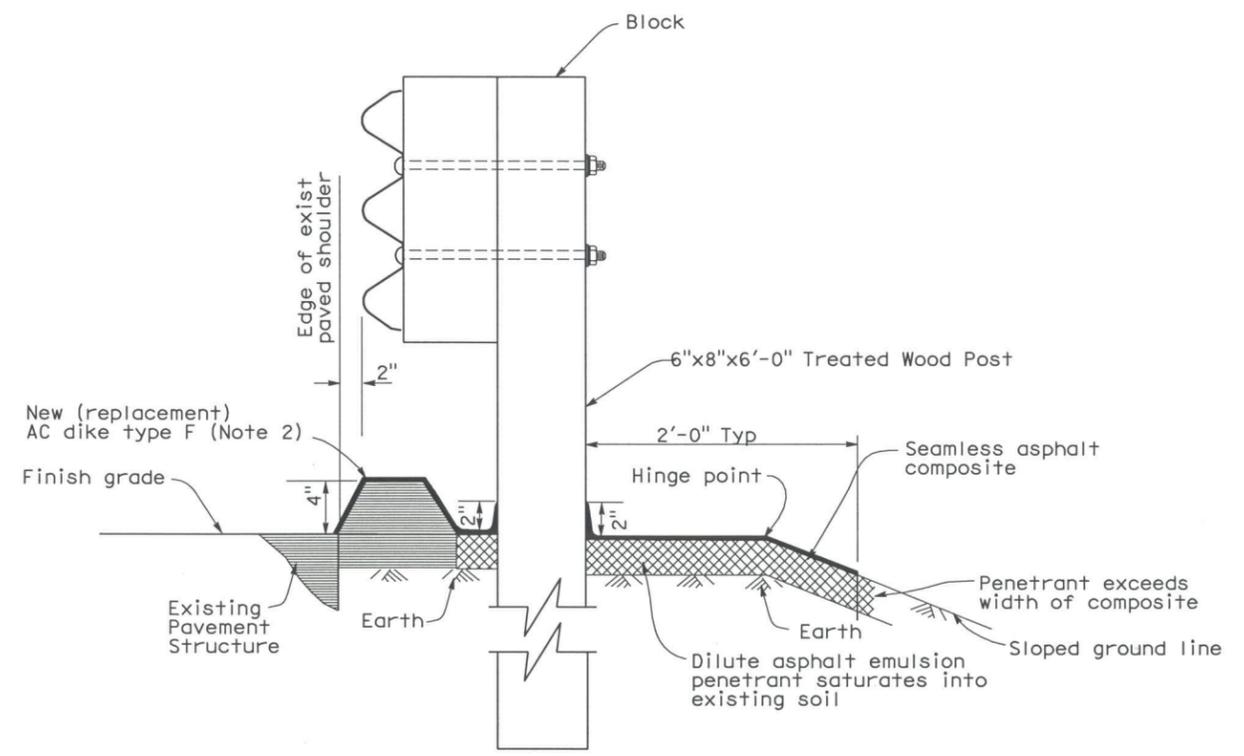
**VEGETATION CONTROL - SINGLE THRIE BEAM BARRIER**

**VEGETATION CONTROL SCHEDULE  
TYPE: SEAMLESS ASPHALT COMPOSITE COVER**

SEGMENT	LENGTH	APPLICABLE SECTION	COMMENT
A	970'	Section B-B	Northerly 393'
		Section B-B (1)	Southerly 507' abutting new (replacement) dike
B	320'	Section A-A	
C	328'	Section A-A	
D	52'	Section A-A	

**NOTES:**

1. For corresponding plan views, see Plate 2.
2. Dike to be type F- Standard Plan A87B. Positioning as shown in Standard Plan A77 C4.

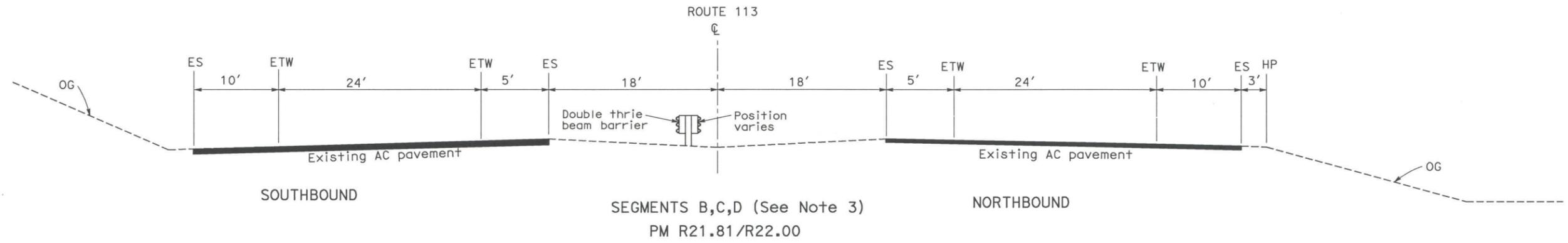
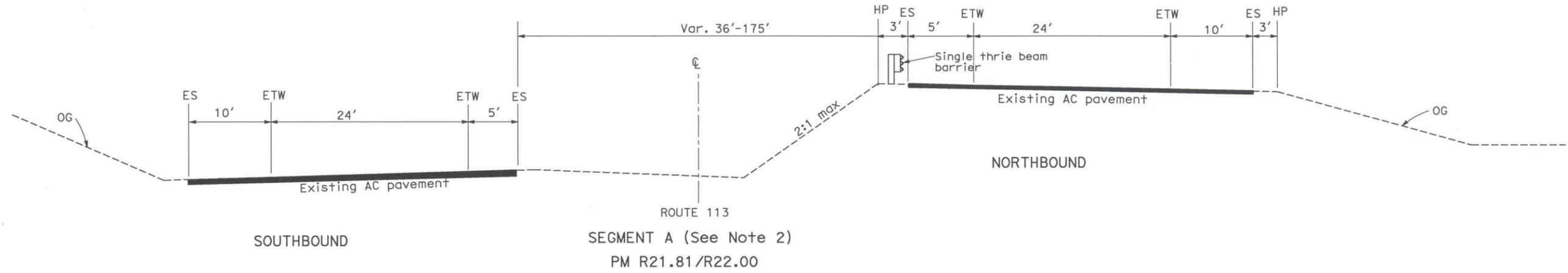


**SECTION B-B(1) with dike**

(Corresponds to Section B-B on Plate 2)

**California Dept. of Transportation - District 4**  
 BARRIER CONSTRUCTION PROJECT  
 EA OG750K  
**TYPICAL VEGETATION CONTROL  
SEAMLESS ASPHALT  
COMPOSITE SECTION**

Solano County - Route 113 - PM R21.8/R22.2



**ROUTE 113**

NOTES:

1. Existing pavement detail per Plate X-3, As-Built-Contract 04-3A3004, 11/30/2010
2. Type F dike (below single thrie beam barrier for southerly portion of Segment A) is not shown
3. Position of double thrie beam barrier within the median varies: for Segment B from northbound ES to C; for Segment C, from C to 4' left of C; and for Segment D, position is 4' left of C

**California Dept. of Transportation - District 4**  
BARRIER CONSTRUCTION PROJECT  
EA OG750K

**TYPICAL CROSS SECTIONS**  
NO SCALE

Solano County - Route 113 - PM R21.8/R22.2

# **PRELIMINARY COST ESTIMATE**

## **ATTACHMENT B**

# PSR/PR PRELIMINARY COST ESTIMATE

District-County-Route 04-SOL-113

PM R21.8/R22.2

EA 0G750K

Program Code 201.010

## PROJECT DESCRIPTION:

Limits: on Route 113 in Solano County, between PM R21.8 and PM R22.2, adjacent to Route 80 and the City of Davis. The proposed improvement: would fill a gap of 1,670 ft. of barrier protection, consisting of 970 ft. of single thrie beam barrier, extending northward from the Route 80 overcrossing along the left edge of the northbound roadway; and, 700 ft of double thrie beam barrier within the median, extending northward to an existing barrier.

## SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	\$360,000
SUBTOTAL CONSTRUCTION COSTS	\$360,000
TOTAL RIGHT OF WAY ITEMS	\$ 5,000
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$365,000

Reviewed by District Program Manager   
(Signature)

Approved by Project Manager  Date 9/15/11  
(Signature)

Phone No. (510) 622-8810

Page No. 1 of 7

I. ROADWAY ITEMS

<u>Section 1 Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Roadway Excavation	_____	_____	\$ _____	\$ _____	
Imported Borrow	_____	_____	\$ _____	\$ _____	
Clearing & Grubbing	<u>1</u>	<u>LS</u>	\$ <u>2000</u>	\$ <u>2000</u>	
Develop Water Supply	_____	_____	\$ _____	\$ _____	
Top Soil Reapplication	_____	_____	\$ _____	\$ _____	
Stepped Slopes and Slope Rounding (Contour Grading)	_____	_____	\$ _____	\$ _____	
_____	_____	_____	\$ _____	\$ _____	
			Subtotal Earthwork	\$	2000

<u>Section 2 Pavement Structural Section*</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
PCC Pavement ( __ Depth)	_____	_____	\$ _____	\$ _____	
PCC Pavement ( __ Depth)	_____	_____	\$ _____	\$ _____	
Minor Hot Mixed Asphalt Concrete	0.23	Ton	\$ <u>1000</u>	\$ <u>230</u>	
Lean Concrete Base	_____	_____	\$ _____	\$ _____	
Cement-Treated Base	_____	_____	\$ _____	\$ _____	
Aggregate Base	_____	_____	\$ _____	\$ _____	
Treated Permeable Base	_____	_____	\$ _____	\$ _____	
Aggregate Sub base	_____	_____	\$ _____	\$ _____	
Pavement Reinforcing Fabric	_____	_____	\$ _____	\$ _____	
Edge Drains	_____	_____	\$ _____	\$ _____	
Remove Asphalt Concrete Dike	510	LF	\$ 5.00	\$ 2,550	
Asphalt Concrete Dike, Type F	510	LF	\$ 6.00	\$ 3,060	
			Subtotal Pavement Structural Section	\$	5840

<u>Section 3 Drainage</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Large Drainage Facilities	_____	_____	\$ _____	\$ _____	
Storm Drains	_____	_____	\$ _____	\$ _____	
Pumping Plants	_____	_____	\$ _____	\$ _____	
Project Drainage (Down drain facilities)	<u>1</u>	<u>L.S.</u>	\$ _____	\$ <u>13,200</u>	
_____	_____	_____	\$ _____	\$ _____	
			Subtotal Drainage	\$	13,200

<u>Section 4: Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Retaining Walls	_____	_____	\$ _____	\$ _____	
Noise Barriers	_____	_____	\$ _____	\$ _____	
Single Thrie Beam Barrier	970	LF	\$ 40.00	\$38,800	
Double Thrie Beam Barrier	700	LF	\$ 60.00	\$42,000	
Salvage Crash Cushion & MGBR/Thrie Transition Rail	1	LS	\$ 1,500	\$ 1,500	
Equipment/Animal Passes	_____	_____	\$ _____	\$ _____	
Water Pollution Control	1	LS	\$ _____	\$ 15,350	
Hazardous Waste Investigation and/or Mitigation Work	_____	_____	\$ _____	\$ _____	
Resident Engineer Office Space	_____	_____	\$ _____	\$ _____	
					Subtotal Specialty Items
					\$ 97,650

<u>Section 5: Traffic Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Lighting	_____	_____	\$ _____	\$ _____	
Traffic Delineation Items	_____	_____	\$ _____	\$ _____	
Traffic Signals	_____	_____	\$ _____	\$ _____	
Overhead Sign Structures	_____	_____	\$ _____	\$ _____	
Roadside Signs	_____	_____	\$ _____	\$ _____	
Traffic Control	1	LS	\$ _____	\$50,000	
Transportation Management Plan	1	LS	\$ _____	\$ 6,000	
Temporary Detection System Staging	_____	_____	\$ _____	\$ _____	
					Subtotal Traffic Items
					\$ 56,000

<u>Section 6 Planting and Irrigation</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Highway Planting	_____	_____	\$ _____	\$ _____	
Replacement Planting	_____	_____	\$ _____	\$ _____	
Irrigation Modification	_____	_____	\$ _____	\$ _____	
Relocate Existing Irrigation Facilities	_____	_____	\$ _____	\$ _____	
Irrigation Crossovers	_____	_____	\$ _____	\$ _____	
_____	_____	_____	\$ _____	\$ _____	
Subtotal Planting and Irrigation Section					
\$ _____					

<u>Section 7: Roadside Management and Safety Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Vegetation Control Treatments	_820	S.Y.	\$46.00	\$ 37,720	
Gore Area Pavement	_____	_____	\$ _____	\$ _____	
Pavement beyond the gore area	_____	_____	\$ _____	\$ _____	
Miscellaneous Paving	_____	_____	\$ _____	\$ _____	
Erosion Control	1	L.S.		11,880	
Slope Protection	_____	_____	\$ _____	\$ _____	
Side Slopes/Embankment Slopes	_____	_____	\$ _____	\$ _____	
Maintenance Vehicle Pull outs					
Off-freeway Access (gates, stairways, etc.)					
Roadside Facilities (Vista Points, Transit, Park and Ride, etc.)	_____	_____	\$ _____	\$ _____	
Relocating roadside facilities/features	_____	_____	\$ _____	\$ _____	
_____	_____	_____	\$ _____	\$ _____	
Subtotal Roadside Management and Safety Section					\$ 49,600

TOTAL SECTIONS: 1 thru 7 \$ 224,290

Section 8: Minor Items

\$224,290 x (10%) = \$ 22,429  
(Subtotal Sections 1 thru 7)

TOTAL MINOR ITEMS \$ 22,429

Section 9: Roadway Mobilization

\$246,719 x (10%) = \$ 24,672  
(Subtotal Sections 1 thru 8)

TOTAL ROADWAY MOBILIZATION \$ 24,672

Section 10 Roadway Additions

Supplemental Work  
\$246,719 x (10%) = \$ 24,672  
(Subtotal Sections 1 thru 8)

Contingencies  
\$246,719 x (25%) = \$ 61,680  
(Subtotal Sections 1 thru 8)

TOTAL ROADWAY ADDITIONS \$ 86,352

TOTAL ROADWAY ITEMS \$ 357,743  
(Subtotal Sections 1 thru 10)

Say: \$360,000

Estimate Prepared by Hugh Converse Phone: (510) 286-6003 Date: May 11, 2011

II. STRUCTURES ITEMS **N/A**

	Structure (1)	Structure (2)	Structure (3)
Bridge Name	_____	_____	_____
Structure Type	_____	_____	_____
Width (out to out) - (ft)	_____	_____	_____
Span Lengths - (ft)	_____	_____	_____
Total Area - (ft <sup>2</sup> )	_____	_____	_____
Footing Type (pile/spread)	_____	_____	_____
Cost Per ft <sup>2</sup> (incl. 10% mobilization and 20% contingency)	_____	_____	_____
Total Cost for Structure	_____	_____	_____

SUBTOTAL STRUCTURES ITEMS

\$ \_\_\_\_\_

(Sum of Total Cost for Structures)

Railroad Related Costs:	_____	_____	_____	\$ _____
	_____	_____	_____	\$ _____
	_____	_____	_____	\$ _____

SUBTOTAL RAILROAD ITEMS      \$ \_\_\_\_\_

TOTAL STRUCTURES ITEMS      \$ \_\_\_\_\_  
 (Sum of Structures Items plus Railroad Items)

Page No. \_\_\_\_ of \_\_\_\_



**ENVIRONMENTAL DOCUMENT**

**(CE)**

**ATTACHMENT C**

**CATEGORICAL EXEMPTION/ CATEGORICAL EXCLUSION DETERMINATION FORM**

**04 Sol 113**

**21.8/22.2**

**0G7500/01**

Dist.-Co.-Rte. (or Local Agency)

P.M/P.M.

E.A. (State project)

Federal-Aid Project No. (Local project)/ Proj. No.

**PROJECT DESCRIPTION:**

(Briefly describe project, purpose, location, limits, right-of-way requirements, and activities involved.)

Caltrans proposes to install approximately 1700 feet of thrie beam barrier along and in the median shoulder of Sol 113 between the northern end of the EB Sol 80 to NB Sol 113 separation and the existing thrie beam barrier protecting the column supporting the SB Sol 113 to EB Sol 80 separation. All work will be within State RW. There are no biological issues as this area is mowed and sprayed on a regular basis. There are no archaeological issues as this area is constructed on fill.

**CEQA COMPLIANCE** (for State Projects only)

Based on an examination of this proposal, supporting information, and the following statements (See 14 CCR 15300 et seq.):

- If this project falls within exempt class 3, 4, 5, 6 or 11, it does not impact an environmental resource of hazardous or critical concern where designated, precisely mapped and officially adopted pursuant to law.
- There will not be a significant cumulative effect by this project and successive projects of the same type in the same place, over time.
- There is not a reasonable possibility that the project will have a significant effect on the environment due to unusual circumstances.
- This project does not damage a scenic resource within an officially designated state scenic highway.
- This project is not located on a site included on any list compiled pursuant to Govt. Code § 65962.5 ("Cortese List").
- This project does not cause a substantial adverse change in the significance of a historical resource.

**CALTRANS CEQA DETERMINATION** (Check one)

**Exempt by Statute.** (PRC 21080[b]; 14 CCR 15260 et seq.)

Based on an examination of this proposal, supporting information, and the above statements, the project is:

**Categorically Exempt. Class 1(c).** (PRC 21084; 14 CCR 15300 et seq.)

**Categorically Exempt. General Rule exemption.** [This project does not fall within an exempt class, but it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment (CCR 15061[b][3])]

Chuck Morton

Print Name: Environmental Branch Chief



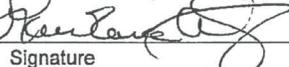
Signature

8/30/2011

Date

Larry Jones

Print Name: Project Manager/DLA Engineer



Signature

8/30/2011

Date

**NEPA COMPLIANCE**

In accordance with 23 CFR 771.117, and based on an examination of this proposal and supporting information, the State has determined that this project:

- does not individually or cumulatively have a significant impact on the environment as defined by NEPA and is excluded from the requirements to prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS), and
- has considered unusual circumstances pursuant to 23 CFR 771.117(b) (<http://www.fhwa.dot.gov/hep/23cfr771.htm> - sec.771.117).

In non-attainment or maintenance areas for Federal air quality standards, the project is either exempt from all conformity requirements, or conformity analysis has been completed pursuant to 42 USC 7506(c) and 40 CFR 93.

**CALTRANS NEPA DETERMINATION** (Check one)

**Section 6004:** The State has been assigned, and hereby certifies that it has carried out, the responsibility to make this determination pursuant to Chapter 3 of Title 23, United States Code, Section 326 and a Memorandum of Understanding (MOU) dated June 7, 2010, executed between the FHWA and the State. The State has determined that the project is a Categorical Exclusion under:

23 CFR 771.117(c): activity (c) ( )

23 CFR 771.117(d): activity (d) ( )

Activity \_\_\_ listed in the MOU between FHWA and the State

**Section 6005:** Based on an examination of this proposal and supporting information, the State has determined that the project is a CE under Section 6005 of 23 U.S.C. 327.

NA

Print Name: Environmental Branch Chief

Signature

Date

NA

Print Name: Project Manager/DLA Engineer

Signature

Date

Briefly list environmental commitments on continuation sheet. Reference additional information, as appropriate (e.g., air quality studies, documentation of conformity exemption, FHWA conformity determination if Section 6005 project; §106 commitments; §4(f); §7 results; Wetlands Finding; Floodplain Finding; additional studies; and design conditions). Revised June 7, 2010

# **RIGHT OF WAY DATA SHEET**

## **ATTACHMENT D**

T0: Project Development  
Advance Planning

Date September 23, 2011  
Dist 4 Co Sol Rte 113 PM  
21.8/22.1  
EA 0G750K

Attention: Hugh Converse  
Project Engineer

From: ENID LAU  
Right of Way Resource Manager

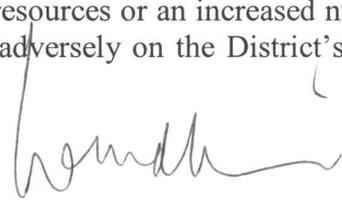
Thrie Beam Median Barrier  
**D.S. #6006(UPDATED)**

Subject: Current Estimated Right of Way Costs

We have completed an estimate of the right of way costs for the above referenced project based on maps we received from you on September 13, 2011, 2011 and the following assumptions and limiting conditions.

- 1. The mapping did not provide sufficient detail to determine the limits of the right of way required.
- 2. The transportation facilities have not been sufficiently designed so our estimator could determine the damages to any of the remainder parcels affected by the project.
- 3. Additional right of way requirements are anticipated, but are not defined due to the preliminary nature of the early design requirements.
- 4. This estimate does not include \$\_\_\_\_\_ right of way costs previously incurred on the project, which may affect the total project right of way costs for programming purposes.
- 5. We have determined there are no right of way functional involvements in the proposed project at this time, as designed.

Right of Way Lead Time will require a minimum of 6 months after we begin receiving final right of way requirements (PYPSCAN node No. 224), necessary environmental clearance has been obtained, and freeway agreements have been approved. From the date of receipt of final right of way requirements (PYPSCAN node No. 265), we will require a minimum of 4 months prior to the date of certification of the project. Shorter lead times will require either more right of way resources or an increased number of condemnation suits to be filed. Either of these actions may reflect adversely on the District's other programs or our public image generally.



Right of Way Resource Manager

Attachments:

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

**RIGHT OF WAY DATA SHEET**

TO: Office of Advance Planning Date 9/14/11 D.S. # 6006

Dist 04 Co Sol Rte 113 PM 21.8/22.1

ATTN: Jerry Morgan EA 04-0G750K (0400001990)

Project Description: Thrie Beam Median Barrier

SUBJECT: Right of Way Data – Alternate No. \_\_\_\_\_

1. Right of Way Cost Estimate:

	Current Value (Future Use)	Escalation Rate	Escalated Value
A. Acquisition, including Excess Lands, Damages, and Goodwill.	\$ <u>0.00</u>	%	\$ <u>0.00</u>
Environmental Mitigation			\$ <u>0.00</u>
Grantor's Appraisal Cost			\$ <u>0.00</u>
B. Utility Relocation (State Share)	\$ <u>5,000.00</u>	%	\$ <u>5,000.00</u>
C. Railroad (Service Contract)			\$ <u>0.00</u>
D. Relocation Assistance	\$ <u>0.00</u>	%	\$ <u>0.00</u>
E. Clearance/Demolition	\$ <u>0.00</u>	%	\$ <u>0.00</u>
F. Title and Escrow Fees	\$ <u>0.00</u>	%	\$ <u>0.00</u>
G. <u>TOTAL ESCALATED VALUE</u>			\$ <u>5,000.00</u>
H. Construction Contract Work	\$ <u>0.00</u>		

2. Anticipated Date of Right of Way Certification \_\_\_\_\_

3. Parcel Data:

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

Areas: Right of Way \_\_\_\_\_ No. Excess Parcels \_\_\_\_\_ Excess \_\_\_\_\_

Enter PMCS Screens 9 / 14 / 11 by M. C. [Signature]

Enter AGRE Screen (Railroad data only) \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ by \_\_\_\_\_

4. Are there any major items of construction contract work?  
Yes  No  (If yes, explain)
5. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.). No right of way required
6. Is there an effect on assessed valuation?  
Yes  Not Significant  No  (If yes, explain)
7. Are utility facilities or rights of way affected? Yes  No   
(If yes, attach Utility Information Sheet Exhibit 01-01-05)
8. Are railroad facilities or rights of way affected? Yes  No   
(If yes, attach Railroad Information Sheet Exhibit 01-01-06)
9. Were any previously unidentified sites with hazardous waste and/or material found?  
Yes  None evident  (If yes, attach memorandum per Procedural Handbook Volume 1, Section 101.011)
10. Are RAP displacements required? Yes  No   
(If yes, provide the following information)
- |                      |       |                            |       |
|----------------------|-------|----------------------------|-------|
| No. of single family | _____ | No. of business/non profit | _____ |
| No. of multi-family  | _____ | No. of farms               | _____ |
- Based on Draft/Final Relocation Impact Statement/Study dated \_\_\_\_\_, it is anticipated that sufficient replacement housing (will/will not) be available without Last Resort Housing.
11. Are there material borrow and/or disposal sites required? Yes  No   
(If yes, explain)
12. Are there potential relinquishments and/or abandonments? Yes  No   
(If yes, explain)
13. Are there any existing and/or potential Airspace sites? Yes  No   
(If yes, explain)

14. Are there Environmental Mitigation costs? Yes  No   
(If yes, explain)

A Categorical Exemption was approved for this project 8/30/11.

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

PYPSCAN lead time (from Regular R/W to project certification) 6 months

16. Is it anticipated that all Right of Way work be performed by CALTRANS staff?  
Yes  No  (If no, discuss)

**Assumptions and Limiting Conditions**

- This data sheet was completed without a hazardous waste/materials report.
- Information on this data sheet was based on maps provided by Jerry Morgan on January 27, 2010 and further information provided by Warwick W.T. Cheung by memo dated 9/6/11.

Evaluation Prepared By: Renata Frey

Right of Way:	Name	<u>Renata Frey</u>	Date	<u>9-14-11</u>
Railroad:	Name	<u>Pat G...</u>	Date	<u>9-14-11</u>
Utilities:	Name	<u>[Signature]</u>	Date	<u>9-14-11</u>

Recommended for Approval:

[Signature]

Right of Way Capital Cost Coordinator

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

Shawn Malloy  
for Chief, R/W Appraisal Services, Mark Shindler  
9-26-2011  
Date

cc: Program Manager  
Project Manager

**UTILITY INFORMATION SHEET**

1. Utility Owners located within project limits:

PG&E, AT&T

2. Facilities potentially impacted by project (if known, include Owner(s) and facility type(s)):

3. Anticipated Workload:

Utility Verification required  
 Positive Identification  
 Utility Relocation  
 Other (Specify)

4. Additional information concerning anticipated utility involvements (include limiting conditions and a narrative addressing likelihood that conflicts will occur);

\_\_\_\_\_ Involves possible relocation of electric transmission facilities  
(If X'd, Data sheet should be forwarded to environmental)

5. PMCS input information

U4-1	_____	Owner Expense Involvements	U5-7	<u>2</u>	Verifications-without involvements
U4-2	_____	State Expense Involvements (Conventional, No Fed Aid)	U5-8	_____	Verifications-50% involvements
U4-3	_____	State Expense Involvements (Freeway, No Fed Aid)	U5-9	_____	Verifications resulting in involvements
U4-4	_____	State Expense Involvements (Conventional or Freeway, No Fed Aid)			

NOTE: The sum of the U-4's must equal the sum of 1/2 of the U5-8's and all of the U5-9's.

**ESTIMATED STATE SHARE OF COSTS \$5,000.00**

Prepared by: Nick Psiol



Right of Way Utility  
Coordinator

9-14-11  
Date

**TRANSPORTATION MANAGEMENT  
PLAN (TMP)  
DATA SHEET**

**ATTACHMENT E**

# TRANSPORTATION MANAGEMENT PLAN DATA SHEET

## (Preliminary TMP Elements and Costs)

Co/Rte/PM SOL-113-PM 21.8/22.1 EA 0G750K Project Engineer Hugh Converse  
 Project Limit On Solano Rte. 113 east of Route 80/113 separation  
 Project Description Install single and double Thrie beam median barrier.

### 1) Public Information

- a. Brochures and Mailers \$ \_\_\_\_\_
- b. Press Release \_\_\_\_\_
- c. Paid Advertising \$ \_\_\_\_\_
- d. Public Information Center/Kiosk \$ \_\_\_\_\_
- e. Public Meeting/Speakers Bureau \_\_\_\_\_
- f. Telephone Hotline \_\_\_\_\_
- g. Internet, E-mail \_\_\_\_\_
- h. Notification to impacted groups  
(i.e. bicycle users, pedestrians with disabilities, others...)
- i. Others \_\_\_\_\_ \$ \_\_\_\_\_

### 2) Traveler Information Strategies

- a. Changeable Message Signs (Fixed) \$ \_\_\_\_\_
  - b. Changeable Message Signs (Portable) \$ 5,000
  - c. Ground Mounted Signs \$ 1,000
  - d. Highway Advisory Radio \$ \_\_\_\_\_
  - e. Caltrans Highway Information Network (CHIN) \_\_\_\_\_
  - f. Detour maps (i.e. bicycle, vehicle, pedestrian...etc) \_\_\_\_\_
  - g. Revised Transit Schedules/maps \_\_\_\_\_
  - h. Bicycle community information \_\_\_\_\_
  - i. Others \_\_\_\_\_
- \$ \_\_\_\_\_

### 3) Incident Management

- a. Construction Zone Enhanced Enforcement Program (COZEEP) \$ \_\_\_\_\_
- b. Freeway Service Patrol \$ \_\_\_\_\_
- c. Traffic Management Team \_\_\_\_\_
- d. Helicopter Surveillance \$ \_\_\_\_\_
- e. Traffic Surveillance Stations  
(Loop Detector and CCTV) \$ \_\_\_\_\_
- f. Others \_\_\_\_\_ \$ \_\_\_\_\_

# TMP Data Sheet (cont.)

4) Construction Strategies

- a. Lane/ Shoulder Closure Chart
- b. Reversible Lanes
- c. Total Facility Closure
- d. Contra Flow
- e. Truck Traffic Restrictions \$ \_\_\_\_\_
- f. Reduced Speed Zone \$ \_\_\_\_\_
- g. Connector and Ramp Closures
- h. Incentive and Disincentive \$ \_\_\_\_\_
- i. Moveable Barrier \$ \_\_\_\_\_
- 
- k. Others \_\_\_\_\_ \$ \_\_\_\_\_

5) Demand Management

- a. HOV Lanes/Ramps (New or Convert) \$ \_\_\_\_\_
- b. Park and Ride Lots \$ \_\_\_\_\_
- c. Rideshare Incentives \$ \_\_\_\_\_
- d. Variable Work Hours
- e. Telecommute
- f. Ramp Metering (Temporary Installation) \$ \_\_\_\_\_
- g. Ramp Metering (Modify Existing) \$ \_\_\_\_\_
- h. Others \_\_\_\_\_ \$ \_\_\_\_\_

6) Alternate Route Strategies

- a. Add Capacity to Freeway Connector \$ \_\_\_\_\_
- b. Street Improvement (widening, traffic signal... etc) \$ \_\_\_\_\_
- c. Traffic Control Officers \$ \_\_\_\_\_
- d. Parking Restrictions
- e. Others \_\_\_\_\_ \$ \_\_\_\_\_

7) Other Strategies

- a. Application of New Technology \$ \_\_\_\_\_
- e. Others \_\_\_\_\_ \$ \_\_\_\_\_

**TOTAL ESTIMATED COST OF TMP ELEMENTS = \$ 6,000**

PREPARED BY A. D. Shah DATE 04-28-10

APPROVAL RECOMMENDED BY Shein Lin DATE 04-28-10



# Memorandum

To: BARRY LOO  
District 4 Traffic Manager

Date: March 15, 2010

From: HUGH CONVERSE *H.C.*  
Project Engineer  
Office of Advance Planning

Subject: REQUEST FOR TRANSPORTATION MANAGEMENT PLAN DATA SHEET

PROJECT MANAGER <b>JAMES HSIAO</b>
PROJECT ENGINEER <b>HUGH CONVERSE</b> 510-286-6003
DIST-EA: 04-EA 0G750K PROGRAM (HB1, HE11, etc.): <b>SHOPP PROGRAM, UNDER PROGRAM CODE 201.010</b>
PROJECT COMMON NAME
CO-RTE-PM (KP): <b>SOL-113-PM 21.8/22.1</b>
LEGAL DESCRIPTION: <b>ON ROUTE 113, IN SOLANO COUNTY, EAST OF THE ROUTE 80/113 SEPARATION.</b>
DETAILED WORK DESCRIPTION: <b>INSTALL SINGLE &amp; DOUBLE THRIE BEAM MEDIAN BARRIER.</b>
CONSTRUCTION COST ESTIMATE: <b>\$275,000 preliminary estimate</b>
PROJECT PHASE: <b>PSR-PR</b>

Traffic Impact Description

- A) The Project includes the following:  
(Check applicable type of facility closures)
- Highway or freeway lanes
  - Highway or freeway shoulders
  - Freeway connectors
  - Freeway off-ramps
  - Freeway on-ramps
  - Local streets

B) Major operations requiring traffic control and working days for each

<u>Operation</u>	<u># of working days</u>
<input checked="" type="checkbox"/> Clearing and grubbing	_____ 2_
<input type="checkbox"/> Existing feature removal	_____
<input type="checkbox"/> Excavation of embankments construction	_____
<input type="checkbox"/> Structural section construction	_____
<input checked="" type="checkbox"/> Drainage feature construction	_____ 4_
<input type="checkbox"/> Structures construction	_____
<input checked="" type="checkbox"/> MBGR/Barrier construction	_____ 45
<input type="checkbox"/> Striping	_____
<input checked="" type="checkbox"/> Electrical component construction	_____ 3
<input type="checkbox"/> Other	_____
Total days requiring traffic control	_____ 54

C. Project staging description and # of working days required per stage:

D.

E.

<u>Stage Description</u>	<u># of working days per stage</u>
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____

D. Have you considered any construction strategies that can restore existing number of lanes?

- Temporary Roadway Widening Structure Involvement?  
Yes \_\_\_\_\_ No \_\_\_\_\_ if "yes", notify Project Manager
- Lane Restriping (Temporary narrow lane widths)
- Roadway Realignment (Detour around work area)
- Median and/or Right Shoulder Utilization
- Use of HOV lane as a Temporary Mixed Flow Lane
- Staging alternatives (Explain below)

Attachments

- Title Sheet
- X Location Map**
- X Photo of Project Site**
- X- Layout Sketch**
- Staging or Traffic Handling Plan
- Damage Calculations
- RUC Calculations

**HUGH CONVERSE**  
Project Engineer

Contact Phone Number **286-6003**

**JERRY MORGAN**  
Senior Engineer

**STORM WATER DATA REPORT  
(SWDR)**

**ATTACHMENT F**



Dist-County-Route: 04-SOL-113

Post Mile (Kilometer Post) Limits:

PM 21.8/22.1

Project Type: Install beam median barrier

EA: 04-0G750K

RU: 04-218

Program Identification: Advance Planning

Phase: PID PA/ED PS&E

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

- 1. Is the project required to consider incorporating Treatment BMPs? Yes No
- 2. Does the project disturb more than 0.25 acres of soil? Yes No
- 3. Is the project part of a Common Plan of Development? Yes No
- 4. Does the project potentially create permanent water quality impacts? Yes No
- 5. Does the project require a notification of ADL reuse? Yes No

If the answer to any of the preceding questions is "Yes", prepare a Long Form - Storm Water Data Report.

Estimated Construction Start Date: 2013 Construction Completion Date: 2014

Separate Dewatering Permit (if Yes, permit number) Yes Permit #: No

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

Hugh Converse 5/17/11
Hugh Converse, Registered Project Engineer/Landscape Architect Date

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

STAMP [Required for PS&E only]

Norman Gonsalves 05/18/2011
Norman Gonsalves, District/Regional SW Coordinator or Designee Date

# **RISK MANAGEMENT PLAN**

## **ATTACHMENT G**

# Project Risk Register

DIST- EA 04-0G750K					Project Name: Thrie Beam Barrier Construction			Project Manager: James Hsiao			Date Created: 01/12/11	Last Updated: 08/26/11					
					Co - Rte - PM: SOL-113-PM 21.8/22.2			Telephone: (510) 622-8810									
ITEM	ID #	Status	Threat / Opportunity	Category	Date Risk Identified	Risk Description	Root Causes	Primary Objective	Overall Risk Rating	Cost/Time Impact Value	Risk Owner	Risk Trigger	Strategy	Response Actions w/ Pros & Cons	Adjusted Cost/Time Impact Value	WBS Item	Status Date and Review Comments
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
1	04-0G750K-01	Active	Threat	DESIGN	Dec. 15 -10	Volatility and likely increase of prices for materials and fuel: i.e.- lumber, steel products, asphaltic products and motor fuel	Market forces stemming from material shortages and fluctuations in oil and other commodity prices	COST	Probability 3=Med (20-39%) <b>Low</b> Impact 2 =Low		Hugh Converse  <a href="mailto:Hugh.Converse@dot.ca.gov">Hugh.Converse@dot.ca.gov</a>	Construction bids exceed Engineer's estimate	ACCEPT	Monitor material prices		185 PREPARE BASE MAPS AND PLAN SHEETS	
2	04-0G750K-02	Active	Threat	CON	Dec. 15 -10	Potential for ADL or other hazardous material encountered during construction to exceed allowable limits	Added tests during construction could indicate contamination requiring offsite disposal or remediation	COST	Probability 2=Low (10-19%) <b>Low</b> Impact 2 =Low		Chris Wilson  <a href="mailto:Chris.Wilson@dot.ca.gov">Chris.Wilson@dot.ca.gov</a>	Unexpected contamination found during required testing	ACCEPT	Complete hazardous materials testing and determine corrective course of action. Disturbance of ADL may be reduced by placement of metal posts instead of wood.		230 PREPARE DRAFT PS&E	
3	04-0G750K-04	Active	Threat	DESIGN	Dec. 15 -10	Occurance of utilities requiring relocation	Deviance of existing conditions from current information	TIME	Probability 1=Very Low (1-9%) <b>Low</b> Impact 2 =Low		Allison Paich  <a href="mailto:Allison.Paich@dot.ca.gov">Allison.Paich@dot.ca.gov</a>	Unforeseen relocation requirements determined at PA & ED stage	ACCEPT	Provide relocation as needed		200 UTILITY RELOCATION	
4	04-0G750K-05	Active	Threat	CON	Dec. 15 -10	Funding shortfall	Overarching State financial constraints and resulting budgetary decisions	TIME	Probability 2=Low (10-19%) <b>Low</b> Impact 2 =Low		James Hsiao  <a href="mailto:JamesHsiao@dot.ca.gov">JamesHsiao@dot.ca.gov</a>	Higher level budgetary decision	ACCEPT	Review options, with higher-level direction, delay if appropriate		0	
5	04-0G750K-06	Active	Threat	DESIGN	Dec. 15 -10	Possible increase in drainage requirements	Significant deviance of existing drainage facilities from as-built drawings	TIME	Probability 2=Low (10-19%) <b>Low</b> Impact 2 =Low		Lily Chan  <a href="mailto:Lily.Chan@dot.ca.gov">Lily.Chan@dot.ca.gov</a>	Further review at PS&E stage revealing need for further modification	ACCEPT	Modify design for construction		230 PREPARE DRAFT PS&E	
6	04-0G750K-07	Active	Threat	PM	July 25 11	Failure to deliver RTL by end of 2012 SHOPP cycle	Delay in programming	TIME	Probability 2=Low (10-19%) <b>Med</b> Impact 4 =Med		Roland Au-Yeung  <a href="mailto:Roland.Au-Yeung@dot.ca.gov">Roland.Au-Yeung@dot.ca.gov</a>	Project delivery delay beyond 2012 SHOPP cycle	AVOID	Modify scope to meet schedule or prepare PCR to push the project out of the 2012 SHOPP		0	

Approved by:  9/15/11  
date