



Project Scope Summary Report

02-PLU-147 PM 8.98

20.10.201.110

PPNO 3472

02 1200 0011

02-4E640

September 2011

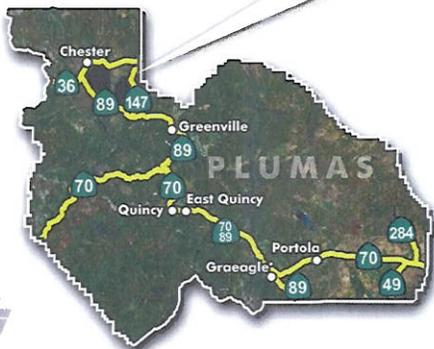


HAMILTON BRANCH BRIDGE REPLACEMENT



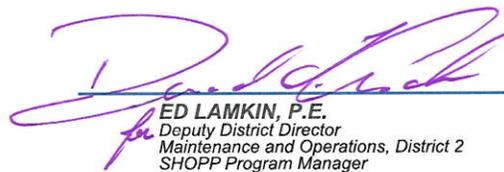
PROJECT LOCATION

In Plumas County about 9 Miles north of Canyon Dam at Hamilton Branch Bridge

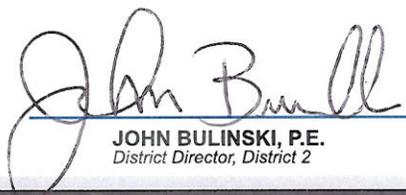


Approval Recommended:


ERIC ORR, P.E.
Project Manager, District 2
9/9/11
Date


ED LAMKIN, P.E.
Deputy District Director
Maintenance and Operations, District 2
SHOPP Program Manager
9/9/11
Date

Approved By:


JOHN BULINSKI, P.E.
District Director, District 2
9/9/11
Date



REPORT SIGNATURE SHEET



This Supplemental Project Scope Summary Report has been prepared by the following Registered Civil Engineer. The Registered Civil Engineer attests to the best of his knowledge the technical information contained therein and has judged the qualifications of any technical specialists providing engineering data upon which recommendations, conclusions and decisions are based.




Steve Veatch, P.E.
Registered Civil Engineer

9-8-2011
Date

PROJECT SCOPE SUMMARY REPORT

(BRIDGE REPLACEMENT)

1. INTRODUCTION

This Project Scope Summary Report (PSSR) proposes to replace the existing Hamilton Branch Bridge (Br. No. 09-0065) on State Route (SR) 147 in Plumas County with a new structure. The new structure is proposed to be along the same alignment as the existing bridge.

Capital Costs:	<u>Current</u>	<u>Escalated</u>
	\$7.0 million	\$8.0 million
Structures:	\$6.3 million	\$7.3 million
Roadway:	\$0.7 million	\$0.7 million
Right of Way Costs:	\$6,500	\$8,000
Support Costs:	\$4.5 million	
Funding Source:	2012 SHOPP	
Number of Alternatives:	1 plus no build	
Preferred Alternative:	Alternative A	
Type of Facility:	Two lane conventional highway	
Project Program:	20.XX.201.110	
Anticipated Environmental Determination Document:	CEQA – Categorical Exemption; NEPA – Categorical Exclusion	
Construction Year:	2015/2016	
Working Days:	120	
PM Location:	9.0	
Legal Description:	In Plumas County about 9 miles north of Canyon Dam at Hamilton Branch Bridge.	
Performance Measures:	- Bridge Replacement - 4 Guardrail End Treatments Replaced	



Hamilton Branch Bridge with substandard bridge rail and one-foot shoulders.



View of undersized steel supports.

2. RECOMMENDATION

Alternative A Proposed Improvements (Scope):

- Remove the existing bridge
- Construct a new reinforced concrete bridge along the existing alignment. The new bridge will have 12-foot traffic lanes and 8-foot shoulders.
- Construct Type 736 or similar management approved bridge rail.
- Replace approach metal beam guard railing (MBGR) and replace terminal sections to meet current standards.
- Place rock slope protection (RSP) to protect abutments.
- Reconstruct approach pavement and shoulders to conform to the widened structure and profile change.

Alternative B: No build.

3. PURPOSE AND NEED STATEMENT

The purpose of this project is to provide a bridge structure at Hamilton Branch Creek that meets modern highway design standards. The existing steel girder bridge (Bridge No. 09-0065) was constructed in 1948 and has several deficiencies, including non-standard width, non-standard bridge rail, and chloride contamination in the deck. Significant structural work would be required to strengthen and widen the bridge to attain the desired width.

This project is needed to continue the District’s efforts to eliminate substandard bridge rail and substandard shoulder widths on structures within the District. Additional need for bridge replacement is to address seismic concerns and provide the best value in providing a bridge structure that meets standards and will better serve the travelling public, including bicyclists and pedestrians.

4. EXISTING FACILITY, DEFICIENCIES, AND TRAFFIC DATA

4A. ROADWAY GEOMETRIC INFORMATION

EXISTING ROADWAY	THROUGH TRAFFIC LANES		PAVED SHOULDER WIDTH	
	No. of Lanes	Lane Width (ft)	Left (ft)	Right (ft)
Post Mile Limits				
8.75 to 9.25	2	12	0 to 2	0 to 2

4B. STRUCTURES INFORMATION

Structures Name/No.	Width Between Curbs (feet)			Replace Bridge Railings (Yes/No)	Vertical Clearance (feet)			Replace Bridge Approach Rail	Replace Bridge Approach Slab	
	Exist	Std.	Prop	(Y/N)	Exist	Std	Prop	(Y/N)	(Y/N)	#
Hamilton Branch Bridge / 09-0065	27.0	40.0	40.0	Y	-	-	-	Y	Y	2

*Outstanding work file shows work recommendations.

4C. VEHICLE TRAFFIC DATA

VEHICLE TRAFFIC DATA (PM 8.8 – 9.2)			
Present ADT (2009):	1700	*20 Year ADT (2035):	2528
20 Year DHV (2032):	431	% Trucks:	10%
20 Year TI:	9.5	Directional Split:	60.7%

ACCIDENT RATES (PM 8.88 – 9.14)		
	ACTUAL	STATE AVERAGE
Fatality Rate	0.000	0.018
Fatality + Injury Rate	0.540	0.335
Total Accident Rate	1.61	0.73

Accident rates per million vehicle miles (TASAS Table B - 5/1/2007 to 4/30/2010)

5. CORRIDOR AND SYSTEM COORDINATION

The project is located on State Route 147 (SR 147), a north-south route, which is a minor arterial at this location. The facility is a two-lane conventional highway and serves to feed local/regional traffic to the interregional network of SR 89 and SR 36. The route provides access to recreational activities, private homes, and resource management activities in and around Lake Almanor. Goods movement along or near SR 147 is accomplished predominately by highway and consists primarily of local timber operations.

The project is consistent with state and local transportation plans and programs. The Plumas County Regional Transportation Plan and the SR 147 Transportation Concept Report both support projects that maintain the integrity of the existing facility. The project is consistent with Complete Streets policy as it will widen shoulders to 3R standards.

6. OTHER CONSIDERATIONS FOR ALTERNATIVE A

6A. ENVIRONMENTAL COMPLIANCE (See Attachment A)

Environmental clearance will require approximately 18 months for completion. A mini-PEAR (Preliminary Environmental Analysis Report) has been completed and is attached.

6B. HAZARDOUS WASTE DISPOSAL SITE REQUIREMENTS

No hazardous waste is anticipated; however, if hazardous waste material is encountered, it shall be handled in accordance to State and Federal laws and regulations. The contractor shall submit the name and location of a Class1 disposal facility along with the required test results to the Engineer three weeks prior to the removal of said materials.

6C. OTHER AGENCIES INVOLVED

- California Department of Fish and Game (1602 Streambed Alteration Agreement)
- Regional Water Quality Control Board (401 Permit)
- United States Army Corp of Engineers (404 Nationwide Permit)

6D. RIGHT OF WAY

All work will be performed within Caltrans' right of way.

6E. RAILROAD INVOLVEMENT

There is no railroad involvement in this project.

6F. EFFECTS OF BICYCLE TRAFFIC

Bicyclists will be directed along the detour route along with motor vehicle traffic.

6G. RISK ISSUES (See Attachment E)

A preliminary Risk Assessment has been performed to identify potential impacts to cost, scope, and schedule.

6H. CONSEQUENCES OF NOT DOING THE ENTIRE PROJECT

If a new bridge is not constructed, the bridge deck and ride quality will continue to deteriorate, the bridge rail and shoulder widths would remain substandard, and maintenance costs will increase.

7. TRANSPORTATION MANAGEMENT PLAN

All Preliminary traffic impacts and mitigation for this project have been outlined in the attached TMP Data Sheet (Attachment D).

8. ENVIRONMENTAL DETERMINATION DOCUMENT

Environmental approval for the project is anticipated to be Categorical Exemption under the State CEQA guidelines and Categorical Exclusion for NEPA.

The California Department of Transportation recognizes the policy and requirements of the Title VI Program Plan - Simple Justice. These requirements have been addressed to the extent feasible through the system planning study report phase.

9. FUNDING/SCHEDULING

9A. COST ESTIMATE (See Attachment C)

STRAIN and other Structural Work	Yes/No	Cost
(A) Replace	Yes	\$ 6,300,000
(B) Rehabilitation	No	\$
(a) Deck	No	\$
(b) Superstructure	No	\$
(c) Substructure	No	\$
(d) Joints	No	\$
(e) Bearings	No	\$
(C) Scour Correction	No	\$
(D) Widening	Yes	Included in replace
(E) Rail Replacement	Yes	Included in replace
(F) Strengthen	No	\$
STRUCTURE COSTS SUBTOTAL		\$ 6,300,000
District Roadway Work		
(A) Traffic Items		\$ 70,000
(B) Roadway Structural Section		\$ 200,000
(C) Bridge Approach Slab		\$ 100,000
(D) Bridge Approach Guardrail		\$ 20,000
(E) Rock Slope Protection		\$ 20,000
(F) Other (mobilization, minor items, SWPPP, supplemental work)		\$ 150,000
DISTRICT COSTS SUBTOTAL		\$ 560,000
SUM OF SUBTOTALS		\$ 6,860,000
30% CONTINGENCY (1)		\$ 140,000
TOTAL CAPITAL COST		\$ 7,000,000

Use this cost for programming purposes.

NOTES:

(1) Contingency based on percentage of total cost of roadway items and supplemental work only as shown in the Attachment C Estimate.

9B. PROJECT SUPPORT

The following table outlines the estimated hourly effort and other support costs. These hours and support costs are based on the project schedule shown below. Costs are shown in \$1000s.

NOTE		CAPITAL & SUPPORT COSTS BY PROGRAM AND PROJECT FUNDING COMPONENT Plu 147 Bridge Replacement						
Please provide input to all yellow cells								
Program	Component	"Baseline" (Original Identified Hours and Funding)						
EA 02-4E640 EFIS 0212000011		Planned (Hours)	Loaded Rate Estimate (\$/Hr.)	Program Funding by Component (x1000)			Support/Capital (%)	
				Prior Allocation	Initial Programming Expectation			
					Direct Charges	Indirect Charges (ICRP)		Total Component Funding
201.110	PA&ED	16,000	\$85.00	\$0	\$918	\$442	\$1,400	17.27%
201.110	PS&E	12,000	\$94.00	\$0	\$761	\$367	\$1,200	14.80%
201.110	R/W	500	\$83.00	\$0	\$28	\$13	\$50	0.62%
201.110	CON	20,000	\$87.00	\$0	\$1,174	\$566	\$1,800	22.20%
SUPPORT SUBTOTAL		48,500		\$0	\$2,881	\$1,388	\$4,450	54.88%
		Baseline	Escalation	Program Funding Total	<i>Low COS^{rates} compared to history; however the basis are the higher level of effort for each component of the capital is higher than history.</i> PPM Deputy Directors Initials <u>sc</u> 9/9/11			
201.110	R/W Capital	\$6.5	\$1.4	\$8				
201.110	Construction	\$5,600	\$826	\$6,430				
201.110	Con Contingencies	\$1,400	\$207	\$1,610				
201.110	Con Capital total	\$7,000	\$1,033	\$8,100				
CAPITAL SUBTOTAL		\$7,007	\$1,034	\$8,108				
TOTALS				\$12,558				
Rate Information		Input	Historic Program Support/Capital Cost Data (%)					
Capital Contingency Rate %	25%	RANGE	Lowest Similar Project		60%			
ICRP Rate %	32.52%		Highest Similar Project		92%			
Escalation Rate Construction	3.50%		Average Similar Project		70%			
Escalation Rate R/W	5.00%		Cumulative 2012 SHOPP Support/Capital					
# of years to escalate	4		25%					

9C. PROJECT SCHEDULE

Project #	02-4E640	Project Name:	Plu 147 – Hamilton Branch Bridge Replacement			
Work Description	Bridge Replacement					
PPNO #	Program Code	Co-Rte-PM	Delivery Yr.	Working Days	Programming	Estimate
3472	20.xx.201.110	Plu 147 9.0	14/15		Const Cap	\$ 8,596,000.00
Program					R/W Cap	\$ 268,000.00
SHOPP	0 Phase - PAED		2 Phase - R/W		Support	\$ 3,990,000.00
	1 Phase - PS&E		9 Phase – R/W Cap Outlay		Delivery Yr	FY 15/16
Schedule Information						
Milestone	Description	Current Schedule	Schedule Duration			
			Environmental			Time Given
M000	ID Need		M040	Begin Project	07/02/12	
M010	Approve PID	09/10/11	M020	Begin Environmental	10/01/12	3 months
M015	Program Project	04/16/12	M120	Circulate DED		
M040	Begin Project	07/02/12	M200	PA&ED	05/15/14	19 months
M020	Begin Environmental	10/01/12		M020 to M200		19 months
M224	Right of Way Maps	11/01/12				
M225	Regular Right of Way	02/01/13	Right of Way			Time Given
M221	Bridge Site Data Accpt	02/01/13				
M120	Circulate DED		M040	Begin Project	08/01/12	
M275	General Plans	12/04/13	M224	Right of Way Maps	11/01/12	4 months
M200	PA&ED	05/15/14	M225	Regular Right of Way	01/01/13	3 months
	Structures P&Q		M200	PA&ED	04/01/14	15 months
M378	Draft Structures PS&E	07/15/14	M410	Right of Way Cert.	07/01/15	8 months
M377	P&E to DOE	08/24/14		M224 to M410		26 months
	Structures Final PS&E	11/01/14	Structures, Design, OE			Time Given
M380	HQ Project PS&E	12/01/14	M040	Begin Project	08/01/12	
M410	Right of Way Cert.	01/07/15	M221	Bridge Site Data Accpt	02/01/13	7 months
M460	Ready to List	03/16/15	M275	General Plans	04/01/13	10 months
M470	CTC Vote	05/14/15	M378	Draft Structures PS&E	12/01/14	7 months
M480	HQ Advertise	07/13/15	M377	P&E to DOE	11/01/14	39 days
M490	Bid Opening	09/01/15	M380	HQ Project PS&E	03/15/15	14 weeks
M495	Award	10/01/15	M460	Ready to List	08/01/15	15 weeks
M500	Approve Contract	10/30/15	M470	Fund Allocation	09/15/15	8 weeks
M600	Contract Acceptance	01/05/17	M480	HQ Advertise	10/01/15	8 weeks
M700	Final Report	04/05/19	M490	Bid Opening	12/01/15	7 weeks
M800	End Project	10/04/19	M495	Award	01/15/16	4 weeks
*Updated 9/7/11	Permits PAED to RTL		M500	Approve Contract	02/15/16	4 weeks
	M200	05/15/14		M377 to M500		14 months
	M460	03/16/15				
	PAED to PE					
	M200	05/15/14				
M377	08/24/14					
Delivery	M040 to M460				32 months	

10. FEDERAL COORDINATION

This project is determined to fall within the delegated authority for State-Authorized under the current Federal Highway Administration /Caltrans Stewardship Agreements.

11. PROPOSED FUNDING

This project is anticipated to be programmed in the 20.XX.201.110 program for 2012 SHOPP. The project is located on the National Highway System and is eligible for Federal National Highway System Funds.

12. LIST OF ATTACHMENTS

- A. Mini-Preliminary Environmental Analysis Report
- B. Right of Way Data Sheet
- C. Preliminary Project Cost Estimate
- D. Traffic Management Plan Data Sheet
- E. Risk Assessment Summary

Mini-Preliminary Environmental Analysis Report

Project Information

District: 02 County: PLU Route: 147 Post Mile: 8.98 EA: 4E640K

Project Title: Hamilton Branch Bridge (Brig. No. 09-0065) Replacement

Project Manager: Eric Orr Phone # (530) 225-3439

Project Engineer: Steve Veatch Phone # (530) 225-4646

Environmental Branch Chief: Ed Espinoza Phone # (530) 225-3308

Project Description

Purpose and Need: The purpose of the project is to provide a road crossing at Hamilton Branch Creek that meets modern highway design standards. The existing steel girder bridge (Brig. No. 09-0065) was constructed in 1948 and has several deficiencies, including non-standard width (approximately 27 feet), non-standard bridge rail, and chloride contamination in the PCC deck. Significant structural work would be required to strengthen and widen the bridge to attain the desired width, which, in addition to the installation of new bridge railing, reconstruction of the bridge approach slabs, and replacement of the deck would likely make bridge replacement a more cost effective option.

Description and Work: The proposed project would entail demolition of the existing bridge and construction of a new bridge on the same alignment. The new bridge is assumed to be a concrete reinforced structure with foundations located above the banks of Hamilton Branch Creek. The new bridge would be approximately 40 feet wide with two 12-foot traffic lanes and 8-foot wide shoulders. New approach slabs and guardrail would also be constructed. Based on photographs of the site, it is assumed that minor widening of the adjoining highway would be necessary to provide a transition to and from the wider structure. The project would require tree removal and utilities may require relocation. A contractor staging area has yet to be identified.

Construction would take at least one year and SR 147 within the project limits would be closed to traffic for the duration of construction.

Anticipated Environmental Approval:

CEQA: Categorical Exemption (14 CCR 15302 Replacement or Reconstruction)

NEPA: Categorical Exclusion (SAFETEA-LU 6004 23 U.S.C. 326 [23 CFR 771.117(d)])

Summary Statement:

In order to identify environmental issues, constraints, costs, and resource needs, a mini-PEAR was prepared for the proposed project. The report is based on limited information. The level of environmental analysis included a cursory review of resource records and databases and estimates based on past projects of a similar nature.

Based on preliminary project information and assumptions made herein, the project may qualify for a Categorical Exemption /Categorical Exclusion for CEQA and NEPA compliance respectively. This assumes that the bridge is not eligible for the National Register of Historic Places (NRHP), no Section 4(f) involvement, avoidance or minimal impact to stream and wetlands, and any archaeological resources or special status species could be avoided. Appropriate research, technical studies, consultation, and field surveys will be conducted during the PA&ED phase of the project. The estimated timeframe to

achieve PA&ED is 18 *months* from the date a complete ESR is received. A resource estimate for this scenario is included in Attachment A. If it is determined during environmental studies that the project may result in potentially significant impacts, a higher level environmental document would be required. This would require a longer timeframe and additional resources to achieve PA&ED.

The ESR should include a complete project description and mapping for all project components including staging areas, disposal sites, utility relocations, construction site access and staging requirements, etc. If possible, the ESR should be submitted to the Environmental Office prior to February to allow time for staff to prepare for and conduct spring surveys.

Based on the location of the existing bridge foundation within Hamilton Branch Creek, it is likely that the project would require a temporary stream diversion and/or dewatering. For purposes of this mini-PEAR, it is assumed that jurisdictional waters would be affected temporarily, but permanent loss could be avoided. Regulatory agencies have a “no net loss” policy and require consideration of avoidance alternatives. Regulatory permits will be required from the Department of Fish and Game, U.S. Army Corps of Engineers, and the Regional Water Quality Control Board. The timeframe for permit acquisition is approximately 12 months following PA&ED.

Special Considerations:

Public Outreach: The prolonged closure of a section of SR 147 during construction may result in a negative effect for some travelers, businesses, and commercial carriers due to the increased time and fuel consumption necessary to detour around the project area. A public outreach campaign should be considered to provide advance notification to the travelling public, local residences, and businesses that may utilize SR 147. This would include public notices published in local newspapers and coordination with the local chamber of commerce and public officials, included emergency response agencies.

Biology: Appropriate research, agency coordination, and field surveys will be required during the PA&ED phase of the project to verify the presence or absence of special status species, nesting raptors, and jurisdictional waters. Raptors such as bald eagles and osprey are common near the forested margins of Lake Almanor. Bats and swallows may inhabit the bridge. Work windows and buffer zones may be required if special status species, bats, swallows, or nesting raptors are determined to be present within the project limits. Work windows and buffer zones vary by species. To avoid impacting nesting birds, including raptors, it may be necessary to remove trees and shrubs during the non-nesting period, which is approximately August 31 and prior to February 15. Any construction windows and buffer zones will be verified during the PA&ED phase based on field studies and consultation with resource agencies.

Permits will be required for any work within surface waters or wetlands. Field surveys during the PA&ED phase will confirm whether jurisdictional waters will be affected. If avoidance is not possible, any loss of jurisdictional waters or riparian vegetation would require replacement. The replacement of waters or riparian vegetation may require a plan, which would be subject to approval by the jurisdictional agencies.

Archaeology: The Hamilton Branch Bridge (Brig. No. 09-0065) is listed as a Category 5 bridge in Caltrans’ bridge log, which means it has been determined not eligible for the NRHP. However, the bridge is over 50 years old and will need to be evaluated by an Architectural Historian. Caltrans’ cultural resources database lists one recorded resource just north of the bridge. The type of site and exact location will be determined during the PA&ED phase of the project. The project area should be considered sensitive for cultural resources considering the occurrences of known historic and prehistoric sites in the vicinity.

The following tasks will be required to comply with federal and state laws, policies, and guidelines pertaining to cultural resources:

Hamilton Branch Bridge Replacement 02-4E640K

- Coordinate with interested parties (e.g., CHRIS-NEIC, local historical societies, Native American Heritage Commission, local Native American representatives, Plumas and Lassen National Forests);
- Delineation of an Area of Potential Effects (APE);
- Conduct an archaeological survey of the APE and preparation of an Archaeological Survey Report;
- Architectural survey conducted by Architectural Historian;
- Preparation of a Historic Property Survey Report, a summary document;
- Coordination with the State Office of Historic Preservation

If cultural resources cannot be avoided, it may be necessary to evaluate the resource for eligibility for listing in the NRHP. This would increase the timeframe and resource needs for cultural staff, including the potential need for an A&E consultant. If an eligible resource were adversely affected, additional time and resources would be necessary to prepare additional reports, generate a mitigation proposal and perform mitigation, and prepare a higher level environmental document.

Hazardous Waste: An Initial Site Assessment (ISA) will be required during the planning phase of the project. The project includes earth disturbance and pavement removal which could involve soils containing aerielly deposited lead (ADL), lead paint (sand blast) residue from bridge painting, and traffic delineation paint containing high concentrations of heavy metals. The ISA will also identify any state listed hazardous waste sites, potential naturally occurring asbestos (NOA), and SSPs necessary to address potentially hazardous waste. A site investigation by an A&E consultant may be required to quantify lead concentrations if sand blast residue containing lead paint is discovered in soils beneath the bridge.

Floodplain: Based on the location of the project within a drainage, a floodplain evaluation should be requested during the planning phase of the project to identify any new encroachments within the base floodplain.

Landscape: The Landscape Architecture Branch should be consulted for slope stabilization and revegetation needs.

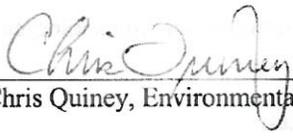
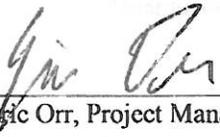
Permits:

The foundation of the existing bridge appears to encroach within Hamilton Branch Creek, a perennial stream. Wetlands may also exist near the bridge foundations. A temporary stream diversion and/or dewatering may be necessary for construction. This mini-PEAR assumes that construction may result in temporary effects to jurisdictional waters, but permanent loss could be avoided. The following regulatory permits will be required: 1602 Streambed Alteration Agreement from the California Department of Fish and Game, Water Quality Certification from the Regional Water Quality Control Board, and a Nationwide Permit from the U.S. Army Corp of Engineers. The timeframe for acquiring the needed permits, following PA&ED, is approximately 12 months from the date preliminary plan sheets and quantities are received.

Disclaimer:

This report is not an environmental document. Due to resource constraints, only minimal information was provided from specialists. The above recommendations are based on the project description provided in this report. The discussion and conclusions provided by this mini-PEAR are approximate and are based

on an in-house review of records to estimate the potential for probable effects. The purpose of this report is to provide a preliminary level of environmental analysis to supplement the PSR/PR. Changes in project scope, alternatives, or environmental law will require a reevaluation of this report.

Prepared by:	
 Chris Quiney, Environmental Coordinator	<u>8/16/11</u> Date
Reviewed by:	
 Eric Orr, Project Manager	<u>8/16/11</u> Date

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY DATA SHEET

Date: August 26, 2011

02-Plu-147-PM 8.98
 E.A. 4E640K
 Hamilton Branch Bridge Replacement



1. Right of Way Cost Estimate: **Alternate No. N/A - 1**

	Current Value Future Use	Escalation Rate	Escalated Value
A. Total Acquisition Cost	\$0		\$0
B. Mitigation acquisition & credits	\$0		\$0
C. Project Development Permit Fees	\$6,500	5%	\$7,532*
Subtotal	\$6,500		\$7,532*
D. Utility Relocation (State Share) (Owner's share: _____)	\$0		\$0
E. Relocation Assistance (RAP)	\$0		\$0
F. Clearance/Demolition	\$0		\$0
H. Title & Escrow	\$0		\$0
I. Total Estimated Right of Way Cost	\$6,500	Rounded	\$7,500
J. Construction Contract Work	\$0		
2. Current Date of Right of Way Certification	September 1, 2014		

* 3-yr. escalated value.
 4-yr. escalated value is \$8,000

3. Parcel Data:

Type	Dual/Appr	Utilities	RR Involvements
X 0		U4 - 1 0	None X
A 0		- 2 0	C&M Agrmt
B 0		- 3 0	Svc Contract
C 0	0	- 4 0	Easements
D 0	0	U5 - 7 3	Rights of Entry
		- 8 0	Clauses
Total 0		- 9 0	
Areas:			Misc. RW Work
R/W: N/A			RAP Displ N/A
Excess: N/A	No. Excess Pcls: 0		Clear/Demo N/A
Mitigation: N/A			Const Permits N/A
			Condemnation N/A
			USA Involvement No

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY DATA SHEET

4. Are there any major items of construction contract work?

Yes _____ No X

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. Are any properties acquired for this project expected to be rented, leased, or sold?

Yes _____ No X

7. Is there an effect on assessed valuation?

No X

Yes _____

Not Significant _____

8. Are utility facilities or rights of way affected?

Yes X

No _____

Utility relocations are not anticipated; however, utility verifications will be required.

As additional information becomes available this datsheet will need to be updated. Per Steve Veatch, there are no known utilities on the bridge.

9. Are railroad facilities or rights of way affected?

Yes _____

No X

10. Were any previously unidentified sites with hazardous waste and/or material found?

Yes _____ None Evident X

11. Are RAP displacements required?

Yes _____

No X

No. of single family _____

No. of business/nonprofit _____

No. of multi-family _____

No. of farms _____

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

12. Are there material borrow and/or disposal sites required?

Yes X No _____

13. Are there potential relinquishments and/or abandonments?

Yes _____ No X

14. Are there any existing and/or potential airspace sites?

Yes _____ No X

15. What type of mitigation is required for the project?

16. 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.)

Right of Way Lead Time will require a minimum of 3 months after we receive first appraisal maps, utility conflict maps, and the necessary environmental clearance and freeway agreements have been approved and obtained. Additionally a minimum of 3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY DATA SHEET

17. Is it anticipated that Caltrans will perform all Right of Way work?

Yes X No

Evaluation Prepared By:

Right of Way:

Tauni Melvin

Tauni Melvin

Date

8/26/11

Reviewed By:

RW Project Coordinator:

Cindy Vincelli

Cindy Vincelli

Date

8-29-11

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

Lisa Harvey

Lisa Harvey,
Senior Right of Way Agent
Project Delivery Branch
Redding

Date

8-29-2011

**PRELIMINARY
PROJECT COST ESTIMATE SUMMARY**

DIST-CO-RTE: 02-PLU-147
PM: 8.98
EA: 02-4E640K
Project ID: 0212000011

Type of Estimate: PSSR

Program Code: 20.XX.201.110

Project Description: In Plumas County about 9 miles north of Canyon Dam at Hamilton Branch Bridge.

Proposed Improvement: Bridge Replacement, Approach Widening, and MBGR Replacement

Updated Estimate: Yes No X

Alternative: Hamilton Branch Bridge

Roadway Items: \$700,000

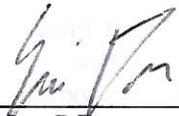
Structure Items: \$6,300,000

Subtotal Construction: \$7,000,000

Right of Way: \$6,500

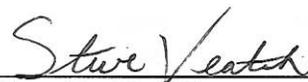
Total Project Cost (rounded): \$7,000,000

Reviewed by Project Manager
Phone No. (530)225-3439


Eric Orr, P.E.

9/9/11
Date

Estimate Prepared by
Project Engineer
Phone No. (530)225-4646


Steve Veatch, P.E.

9-8-2011
Date

PRELIMINARY PROJECT COST ESTIMATE SUMMARY

I ROADWAY ITEMS

Section 1: Earthwork

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>
Roadway Excavation	500	CY	\$70	\$35,000
Import Borrow	1,000	CY	\$60	\$60,000
Clearing & Grubbing	1.0	LS	\$10,000	\$10,000

Total Earthwork:	\$105,000
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Section 2: Roadway Structural Section

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>
Hot Mix Asphalt	600	TON	\$120	\$72,000
Aggregate Base	200	CY	\$100	\$20,000
Bridge Approach Slabs	1,000	SQFT	\$100	\$100,000
Edge Drains		LF	\$10	\$0
HMA Dike	100	LF	\$10	\$1,000
Cold Plane AC Surface	600	SQYD	\$15	\$9,000

Total Roadway Structural Section:	\$202,000
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Section 3: Drainage

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>
Underdrains	0	LF	\$40	\$0
Ditch Lining RSP	0	CY	\$60	\$0
Downdrains	100	LF	\$50	\$5,000

Total Drainage Items:	\$5,000
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Section 4: Specialty Items

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>
COZEEP	0	DAYS	\$450	\$0
SRT	4	EA	\$3,500	\$14,000
Metal Beam Guardrail	100	LF	\$40	\$4,000
Structure Excavation	0	CY	\$60	\$0
Class A Concrete	0	CY	\$800	\$0
Rock Slope Protection	200	CY	\$100	\$20,000
RSP Fabric	100	SQYD	\$10	\$1,000
Erosion Control	2.5	AC	\$3,500	\$8,750

Total Specialty Items:	\$48,000
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PRELIMINARY PROJECT COST ESTIMATE SUMMARY

Section 5: Traffic Items

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>
Portable Changeable Msg. Sign	4	EA	\$2,500	\$10,000
Luminaires		EA	\$12,000	\$0
Temporary Traffic Signals	1	LS	\$45,000	\$45,000
Construction Signing	1	LS	\$5,000	\$5,000
Paint Striping	3,000	LF	\$0.20	\$600
Permanent Roadsigns	2	EA	\$500	\$1,000
Construction K - Rail	100	LF	\$50	\$5,000
Traffic Control	0	DAYS	\$1,800	\$0

Total Traffic Items:	\$67,000
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Section 6: Minor Items

(subtotal of sections 1 - 5) x (5% - 10%) = \$427,000 7%

Total Minor Items:	\$30,000
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Section 7: Roadway Mobilization

(subtotal of sections 1 - 6) x (0% - 10%) = \$457,000 10%

Total Roadway Mobilization:	\$46,000
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Section 8: Roadway Additions

Supplementals

(subtotal of sections 1 - 6) x (5% - 10%) = \$457,000 7% \$31,990

SWPPP, BMP, etc.

(subtotal of sections 1 - 6) x (6%) = \$457,000 6% \$27,420

Contingencies

(subtotal of sections 1 - 6) x (20% - 30%) = \$457,000 30% \$137,100

Total Roadway Additions:	\$197,000
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Total Roadway Items:	\$700,000
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Section 9: Engineering

Right of Way and Design	\$7,000,000	25%	\$1,750,000
Construction	\$7,000,000	14%	\$980,000

Total Engineering:	\$2,730,000
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PRELIMINARY PROJECT COST ESTIMATE SUMMARY

II. STRUCTURES ITEMS

Bridge Name	Hamilton Branch
Structure Type	Concrete
Width (new or width addition)	43.0
Span Length	320
Total Area	13,760
Footing Type (Pile/Spread)	Pile
Cost Per Square Foot (includes 10 mobilization and 25% contingency)	\$458
Total Cost of Structure	\$6,300,000

Bridge Removal

Total Structure Items:	\$6,300,000
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III. Right of Way

Acquisition, including excess lands and damages to remainder(s)	\$0
Mitigation acquisition & credits	\$0
Utility Relocation	\$0
Clearance/Demolition	\$0
Relocation Assistance	\$0
Title and Escrow Fees	\$0
Project Development Permit Fees	\$6,500

Total Right of Way:	\$6,500
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TRANSPORTATION MANAGEMENT PLAN DATA SHEET

To: Steve Veatch, PE
D2 Advance Planning
Redding, CA MS-4

Date: September 7, 2011
EFIS: 0212000011
File: PLU-147-PM 8.75/9.25
EA: 02-4E640K

From: Department of Transportation
District 2 - Office of Traffic Management

Work: Replace Hamilton Branch Bridge

1. POLICY

The Caltrans Deputy Directive titled "Transportation Management Plans" (DD-60) establishes the current policy for mitigating traffic impacts resulting from construction, maintenance, encroachment permit, planned emergency restoration, locally or specially funded, or other activities. The directive states that Transportation Management Plans (TMPs) and contingency plans shall be completed for all work activities on the State highway system. **The purpose of this Transportation Management Plan Data Sheet is to insure all anticipated TMP costs are included in the Project Initiation Document (PID).**

2. SCOPE OF WORK

This Major SHOPP project will replace the Hamilton Branch Bridge (BR #09-0065) located on SR 147 approx. 9.0 mi north of Canyon Dam in Plumas County. Replacement will be on the existing alignment. The new reinforced concrete bridge will provide one 12-ft wide paved lane and 8-ft wide paved shoulder for each direction of travel. New bridge railing, MBGR approaches, and terminal sections will be installed. The existing roadway approaches and shoulders will be widened to match the new bridge profile and dimensions. RSP will also be placed to protect the new abutments.

The PE has estimated 120 working days for this project (one season), with traffic control required for the same number of days. Construction is scheduled to occur between June 1 and October 30, 2015.

3. EXISTING FACILITY

ROADWAY: SR 147 is a 2-lane conventional highway that lies on the east side of Lake Almanor and serves as the primary route for motorists traveling between Canyon Dam and Westwood. In 2011 project 02-3E050 will reconstruct this segment of roadway; thus one 12 ft paved lane with 2-4 ft paved shoulder will be provided for each direction of travel. There are no passing lanes within the project limits. Alignment at the bridge is tangent, however there is a 500 ft radius curve at the north end of the bridge. Roadway and bridge profile are flat. Adjacent land consists of rolling to mountainous, forested terrain. The regulatory speed limit is 55 mph.

STRUCTURE: The existing Hamilton Branch Bridge (09-0065), located at PM 8.89, is 332 ft long and 26.5 ft wide.

TRAFFIC DATA: The 2010 AADT for this location is 1,700 (both directions). Traffic counts taken from profile station #P85 at LAS-147-PM 1.14 in May 2010 indicate a weekday peak of 90 vph (one direction) and a weekend peak of 83 vph (one direction). Trucks comprise 10% of traffic volumes.

CENSUS LOOPS: There are no census loops within the project limits. Further information regarding census equipment can be obtained from Karen Carmo, D2 Traffic Census, at 530-225-3042.

ITS FIELD ELEMENTS: There are no ITS field elements within the project limits. Further information regarding ITS equipment can be obtained from Ian Turnbull, D2 Chief of the Office of ITS Engineering & Support at 530-225-3320.

LOCAL ROADS: There are no public road connections within the limits of active construction; however, Co Road A-13, aka Big Springs Rd (located at PLU-147-PM 7.37, LT) is being proposed for use as a detour for an extended period of time. This local road is a two-lane roadway providing 12-ft wide paved lanes and 2-4 ft wide paved shoulders. The speed limit on A-13 is 55 mph; however there are several locations where the speed is reduced to 35 mph due to nearby housing developments.

4. TRAFFIC IMPACTS

TRAFFIC: Because bridge replacement will occur on the existing alignment, the PE has proposed that SR 147 be completely closed at the bridge to allow construction to be completed within one season. Thus for approx. 120 working days, motorists would be detoured using County Rd A-13 and SR 36. This detour is approx. 9.0 miles, adding an additional 4-5 miles to the motorists' normal route. Based on an AADT of 1,700 vehicles, approx. 204,000 motorists will be detoured over the 120 working day time period.

Final paving and striping may occur under Std Plan lane closures during typical 10-12 hour weekday work shifts. No significant delays from Std Plan lane closures are expected due to the short length of the closure needed and the low to moderate number of motorists affected.

PEDESTRIANS & BICYCLES: Few pedestrians and bicyclists are expected due to the rural location of the bridge. (BICYCLE NOTE: Only SR 147 south of A-13, and A-13, are used as part of the Annual Mile High Bike Ride held on the 3rd Friday and Saturday in June. Although this event should not be directly affected by the bridge closure, the additional volume of detoured vehicles and trucks on A-13 may affect participants enjoyment of the ride).

TRUCKS: SR 147 and Co Rd A-13 are approved for California Legal Trucks only. Based on truck volumes for the bridge location, approx. 100-170 CL trucks per day may be detoured to A-13 during full closure. Due to the duration of the closure, this may adversely impact the local road condition. As an alternate detour, SR 89 and SR 36 are both terminal access routes to the STAA National Network.

CORRIDOR: For this project, the "Corridor" is considered to be between Canyon Dam and the SR 147/36 Jct, for which the D2 DTM has established a maximum corridor delay limit of 15 minutes. In addition, lane closures on 2-lane roadways spaced closer than 5.0 mi apart are not allowed to avoid traffic control conflicts and to allow any queues to disperse between closures. In addition to the "corridor", construction on the alternate routes would add significant delays to detoured truckers. At this time, there are no other projects are scheduled for construction on this corridor or the detour routes (SR 89 and SR 36) during 2015.

RESIDENTS (ACCESS): There are few residents living off SR 147 north and south of the bridge. During the closure, access will be unaffected. However, depending on the approach direction, residents may be required to travel the detour to reach their property.

SCHOOLS: Contact with Transportation Department for the Plumas County Office of Education indicated that they do not use SR 147 north of the A-13 connection; thus closure of the bridge should not impact school bus service.

EMERGENCY SERVICES: Typically, emergency services can be provided passage through a construction zone; However, at some point during this project, there will be no way to provide passage to emergency service providers (police, fire, medical). During this time, these entities will be required to use the detour route, potentially adding 5-10 minutes to their normal response times. A more specific time period that services will be affected cannot be quantified at this phase.

SPECIAL EVENTS: Although there are several local events held in Chester, the closure & detour of SR 147 north of Co Rd A-13 should not affect these events. Motorists traveling SB from the Westwood area to special events held in Quincy will need to travel the detour route (an additional 4-5 miles). No significant impacts to special events are expected.

5. TRAFFIC IMPACT MITIGATION

FULL CLOSURE & DETOUR: Per DD-60, any strategy that requires the full closure of a state facility must be approved by the District's Lane Closure Committee (Executive Staff). The trade-off between project construction savings and public inconvenience shall be presented. In addition, the PE shall contact the local agency regarding the need for an encroachment permit. (NOTE: The local agency may request that the project include funding for pavement repair). If the full closure & detour strategy is approved by the D2 Lane Closure Committee, the PE shall include:

- \$3,000 for TMP Public Information & Outreach
- Increased costs associated with detour signage
- Cost associated with providing approx. 4 PCMSs for the duration of the closure & detour

In addition, the TMP will include a restriction on the number of days the closure and detour will be allowed (Order of Work SSP). The PE shall include a detour detail in the plans.

STD PLAN LANE CLOSURES: Std Plan T-13 lane closures will be subject to typical restrictions (not allowed after 3:00 p.m. Fridays, weekends, designated legal holidays, and any special local events TBD by the TMP). Lane Closure Charts will not be required. During lane closures, a minimum of one 12-ft wide paved lane shall be provided. The maximum stop and delay times will be specified in the TMP.

TRUCKS: Because the project requires a detour, the SSP requiring 25-day advance notification to HQ Transportation Permits will be included in the TMP.

CORRIDOR: Throughout project development, the corridor and detour routes will be reviewed to determine if new projects become scheduled. If potential conflicts are identified, the appropriate Project Managers will confer to reschedule projects as necessary.

WORKER SAFETY MEDIA CAMPAIGN - Worker safety media campaigns have been shown to reduce work zone vehicle collisions. Reducing work zone collisions will increase public and worker safety and reduce incident related congestion. With safety and reliability being the Departments number 1 and 2 goals respectively, it is appropriate for \$500 be set aside for worker safety media advertisements.

TMP PUBLIC INFORMATION: The PE should include \$3,000 in the estimate to provide a press release to the local media regarding the long-term closure and detour. In addition, the following entities shall be notified:

- Emergency Service Providers (fire, medical, law enforcement)
- Mile High Bike Event Coordinator

COST: In addition to typical traffic control costs associated with Std Plan lane closures, the following shall be incorporated into the PID estimate:

- **PUBLIC INFORMATION:** Approx. \$3,000 should be included in item #066063-TMP Public Information.
- **WORKER SAFETY MEDIA CAMPAIGN:** Approx. \$500 should be included in item #066063-TMP Public Information.
- **PCMSs:** Cost for a minimum of 4 PCMSs shall be included
- **DETOUR SIGNAGE:** Include increased costs associated with detour routing.
- **LOCAL ROAD PAVEMENT REPAIR:** Include if requested by the local agency.

TMP: A TMP is required for this project and should be requested at a time when the design is complete enough to determine specific traffic impacts, but is early enough to make design changes/additional required for traffic mitigation. The TMP for this project will summarize the traditional traffic handling practices and other traffic mitigation strategies that will be implemented during construction that will include, but not limited to: 2 week pre-notification of closures (Lane Closure Schedule), DTM evaluation of cumulative traffic corridor delays for multiple projects, California Highway Patrol Information Network (CHIN), Road Work Information Bulletin (RIB), Local Agency contacts, Permanent Changeable Message Sign (CMS) locations, permanent and portable Highway Advisory Radio (HAR) locations, CHP Commander contacts, incident response (accident, natural event) contacts, contingency plans, and maintenance contacts.

This TMP Data Sheet was prepared by Jan Meyer, TE. I have personally reviewed this TMP Data Sheet and all supporting information. I certify that the assumptions are reasonable and proper subject to the limiting conditions set forth and I find the Data Sheet complete and current.



Clint Burkenpas
Chief, Office of Traffic Management
District 2
530-225-3245

9/8/2011
Date

Project Name: Hamilton Branch Bridge

County - Route - Post Mile/Post Mile: PLU-147-PM 8.98

EA/Project ID Number: 4E640K/02 1200 0011

RISK MANAGEMENT LOG (THREATS AND OPPORTUNITIES)

Priority	RISK MANAGEMENT LOG (THREATS AND OPPORTUNITIES)												
	Identification						Qualitative Analysis			Response Strategy		Monitoring and Control	
	Status	ID #	Date Identified Project Phase	Threat/Opportunity Event	SMART Column	Risk Trigger	Type	Probability	Impact	Strategy	Response Actions including advantages and disadvantages	Responsibility (Task Manager)	Date, Status and Review Comments
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(15)	(16)	(18)	(20)
	Active	1		More time may be needed to achieve the environmental document and/or permits; costly mitigations may be needed.	Due to limited resources and schedule, limited environmental planning studies were performed for the PEAR.	Environmental studies and evaluations should reveal the need for more time, permits, and associated mitigations.	Schedule & Cost	Moderate	Moderate	Mitigation	If any of the environmental issues cannot be avoided, a PCR will be required to adjust the schedule/or costs to allow enough time to deal with the environmental issues.	Environmental/PE/PM	9/7/2011
	Active	2		Scope and cost changes may arise as a result of insufficient planning during PID development.	Due to limited resources and schedule, limited planning studies were performed, including no APS.	Engineering studies performed during project development should reveal the need for scope changes or additional funds.	Scope & Cost	High	Moderate	Mitigation	If alternatives cannot meet the project's need a purpose, and stay within programming amounts, a PCR will be required. If the PCR is not approved, the project will be unpared and reprogrammed.	Structures PE/PE/PM	9/7/2011
	Active	3		More time/costs may be needed to achieve R/W cert.	Due to limited resources and schedule, limited right of way studies were performed for the datasheet.	Environmental, engineering, and right of way studies performed during project development should reveal changes needed to obtain the appropriate clearances.	Schedule & Cost	Moderate	Moderate	Mitigation	If any of the right of way issues cannot be avoided, a PCR will be required to adjust the schedule/or costs to allow enough time to deal with the right of way issues.	Right of Way/PM/PE	9/7/2011
	Active	4		More support resources may be needed to deliver and construct the project.	Due to limited resources and schedule, workplan estimates were not requested from functional units.	The workplan was created based on a template for structures. Major scope changes may need additional resources for project development.	Cost	Moderate	Moderate	Mitigation	If any of the resourcing issues cannot be avoided, a PCR will be required to adjust the schedule/or costs to allow enough time to deal with the resourcing issues.	PDT/ PM	9/7/2011
	Active	5		There may be changes in staff and /or availability of staff, which could delay deliveries.	Staff may transfer to Construction during the construction season. Workload may be transferred between units.	Functional units report staffing changes as they happen; transfers, separations, promotions, etc.	Schedule	High	Moderate	Mitigation	Keep good records for smooth hand-off to new staff, when possible provide transition time.	PDT	9/7/2011
	Active	6		There may be problems with closing Route 147; the county may require mitigation dollars for detours, public outcry during delivery or construction.	The Clear Creek 2R project closed route 147 for a few weeks of the 2011 construction season. The community is aware of the impacts of the closure of the highway.	Risk trigger could occur after discussions with county and locals.	Scope & Cost	Moderate	Moderate	Mitigation	Communicate early with the county for necessary approvals. Setup public awareness campaign. Consider alternatives that do not close the highway (including resulting PCRs, if necessary).	Traffic/PE/PM	9/7/2011

