
**ROADWAY REHABILITATION
PROJECT SCOPE SUMMARY REPORT**
To Request Programming in the 2012 SHOPP:

On Route: US 395

From: Junction with Bodie Road (SR 270) / PM 69.9

To: Jack Sawyer Road in Bridgeport / PM 75.9

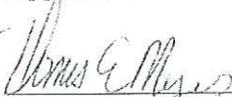
I have reviewed the right of way information contained in this Project Scope Summary Report and the R/W Data Sheet attached hereto, and find the data to be complete, current and accurate:

for 

SPIROS KARIMBAKAS
Chief, Central Region Right of Way

8/23/11
Date

Approval Recommended By:



TOM MEYERS
Project Manager

8-18-11
Date

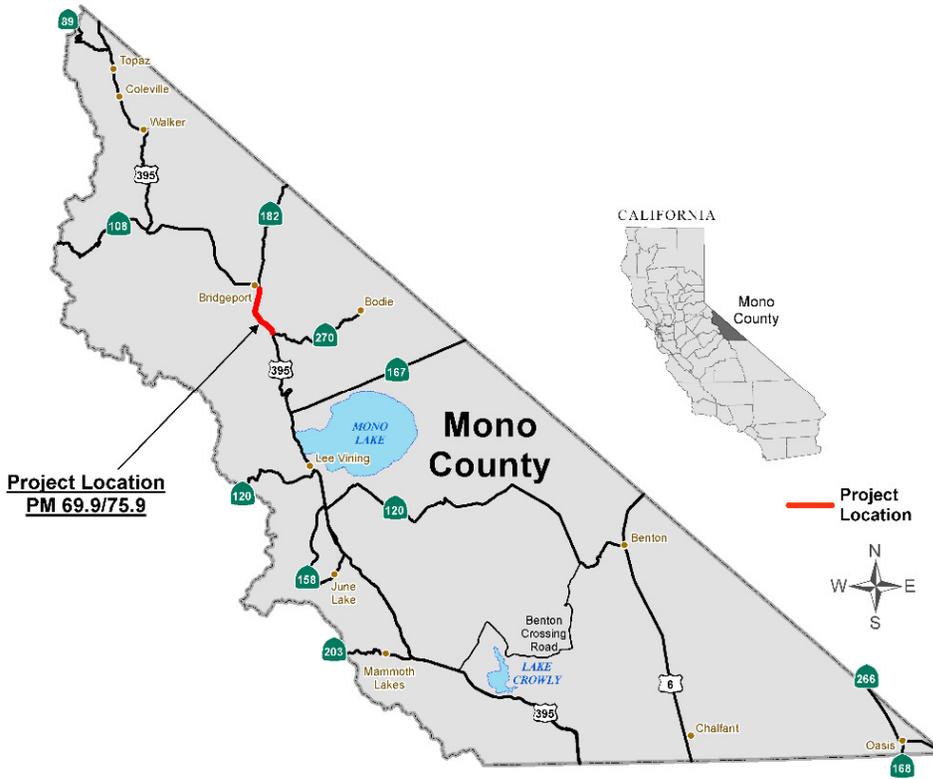
Approved By:



THOMAS P. HALLENBECK
District Director - District 9

10/1/11
Date

**PROJECT SCOPE & TECHNICAL DATA ARE VALID THROUGH 10/13
COST & WORK PLAN MUST BE UPDATED PRIOR TO USE FOR
PROGRAMMING**



US 395 in Mono County from junction with SR 270 to Jack Sawyer Road in Bridgeport

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

 8/18/11

BRIAN P. WESLING

DATE

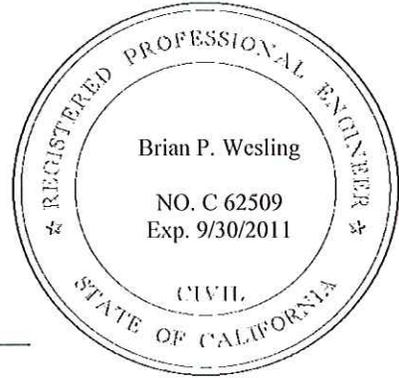


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1. INTRODUCTION AND BACKGROUND

This project proposes to rehabilitate the pavement on US Highway 395 in Mono County from PM 69.9 to PM 75.9. In addition, this project includes shoulder widening, sight distance improvements and replacement of drainage culverts.

Alternative 1 is the preferred alternative and proposes to construct the project as described in this document. Alternative 2 proposes construction to full 3R standards without obtaining design exceptions and is not considered a viable alternative based upon excessive cost and impacts. Alternative 3 is the no-build alternative.

Project Limits [Dist., Co., Rte., PM]	09-MNO-395 PM 69.9/75.9
Current Capital Costs:	\$8,478,000
Current Capital Right of way Costs:	\$1,041,000
Funding Source:	20.10.201.120
Number of Alternatives:	3
Recommended Alternative (for programming and scheduling):	Alternative 1
Type of Facility: (conventional, expressway, freeway):	Rural Conventional 2-Lane Highway
Number of Structures:	0
Anticipated Environmental Determination/Document:	ND/FONSI
Legal Description:	In Mono County near Bridgeport from Route 270 to Jack Sawyer Road

2. RECOMMENDATION

Alternative 1 is the recommended alternative for programming in the 2012 SHOPP.

3. PURPOSE AND NEED STATEMENT

Purpose: The purpose of the project is to restore the roadway to a condition that will require minimal maintenance, extend the service life of the pavement, and replace and upgrade highway appurtenances and facilities.

Need: This section of US Highway 395 was identified for rehabilitation in the 2008 Pavement Condition Survey Inventory and shows moderate to high Alligator B cracking for the majority of the section of roadway to be rehabilitated.

4. EXISTING FACILITY, DEFICIENCIES AND TRAFFIC DATA

4A. - Roadway Geometric Information

	Facility Location (PM)	Minimum Curve Radius	Through Traffic Lanes			Paved Shoulder Width		Median Width	Shoulder is a Bicycle Lane (Y/N) -Width	Other Bicycle Lane Width	Bicycle Route (Y/N**)	Facilities Adjacent to the Roadbed (Code/Width)
			No. of Lanes	Lane Width	Type (Flex, Rigid, or Composite)	Left	Right					
Existing	69.9-74.8	1,150'	2	12'	Flexible	Var 1' - 4'	Var 1' - 4'	N/A	No	N/A	No	N/A
Existing	74.8-75.9	4,000'	2	12'	Flexible	Var 6'-8'	Var 6'-8'	N/A	No	N/A		N/A
Proposed	69.9-72.1	1,150'	2	12'	Flexible	4'	4'	N/A	No	N/A	No	N/A
Proposed	72.15-72.8	1,150'	2	12'	Flexible	8'	8'	N/A	No	N/A	No	N/A
Proposed	72.8-73.0	1,150'	2	12	Flexible	8'	4'	N/A	No	N/A	No	N/A
Proposed	73.0-73.15	1,150	2	12'	Flexible	8'	8'	N/A	N/A	N/A	No	N/A
Proposed	73.15-73.3	1,150	2	12'	Flexible	8'	4'	N/A	N/A	N/A	No	N/A
Proposed	73.3-75.9	4,000'	2	12'	Flexible	8'	8'	N/A	N/A	N/A	No	N/A

** = There are no special bicycle designations for this stretch of highway. Mono County encourages the use of bicycles on the State and Federal Highway System in Mono County.

Remarks: This is a “3R” (Resurfacing, Restoration, and Rehabilitation) project. Some “3R” standards will not be met due to excessive cost as compared to the benefits realized. Fact Sheets for Exceptions to Mandatory and Advisory design standards have been approved. The following design speeds were approved by the HQ Design Coordinator on May 5, 2009:

PM 69.85 to 73.50 = 60 mph

PM 73.50 to 74.50 = 65 mph

PM 74.50 to 76.00 = 55 mph

4B. Condition of Existing Facility:

(1) Traveled Way Data

PMS Category (1-29): 7 Priority Classification (.1-.4) 0.21

International Ride Index: 79

*Flexible Pavement:

* From latest PMS-Pavement Condition Inventory Survey Data.

Alligator B Cracking %	<u>13%</u>
Patching %	<u>None</u>
Rutting	<u>None</u>
Bleeding	<u>None</u>
Raveling	<u>None</u>

Locations(s) of subsurface or ponded surface-water problem: None

Remarks:

A Priority Classification score of 0.21 represents flexible pavement being in a state of “critical deterioration”. The pavement is deteriorating to the extent that it will more than likely become unserviceable within two years without an inordinate amount of maintenance, or; the chance of losing the facility without rehabilitation is highly probable.

This project has been scoped as a rehabilitation project in the 201.120 Program per the determination of District 9 and the Headquarters Roadway Preservation Program Advisor. The pavement within the project limits has an acceptable ride but shows signs of major structural distress. A full depth recycle rehabilitation strategy is recommended to restore the entire pavement section and remove all existing cracking in order to provide a relief from maintenance.

This section of highway was rehabilitated in 1995 but the 0.15' of gap graded rubber placed as the rehabilitation strategy had material issues and within 2 years of placement the underlying distress which triggered the rehabilitation was reappearing. A polymer modified chip seal was placed in 1997 as a preventive maintenance treatment. An asphalt rubber chip seal was placed 2001 in an effort to seal and arrest some of the alligator A and B cracking and block cracks that were becoming more prevalent. In 2003 State Forces performed 200 tons of wheel track grinder digouts in preparation for a dense graded polymer modified thin blanket overlay placed in 2004. Even after that, extensive reflective cracking required yearly crack sealing by State Forces. By 2008 areas of extensive alligator B cracking were reappearing and reflective block, thermal, and alligator A cracking were evident from one end of the project limits to the other. The 2008 Pavement Condition Survey provides a fair assessment of the readily observable pavement condition. However, areas identified with only moderate alligator B cracking are actually worse than observed at the surface since the number of maintenance treatments placed since the 1995 rehabilitation are simply covering up underlying distress, which given another year or so without treatment, will appear as high alligator B cracking.

Just after the 2008 Pavement Condition Survey a thin lift blanket of high binder asphalt rubber was placed as a stop gap measure in anticipation that a rehabilitation project would be programmed. Within months after placement of the high binder rubber the existing cracks were reflecting through. Today the pavement appears much as it did in 1995 prior to the rehabilitation project.

The District expects a full depth recycle rehabilitation project will provide 20 years of service life with minimal maintenance effort. A pavement preservation treatment will be placed within 3-5 years after construction and at regular intervals to further extend the service life.

This project is included in the Roadway Preservation category of the District 09 2010 Ten Year SHOPP Plan approved by District Director Thomas P. Hallenbeck.

Deflection Study Results:

A Deflection Study was conducted on March 10, 2009. The average 80th Percentile Deflection varied from 0.011” to 0.014”. The tolerable deflection is 0.012”. 4 of the 12 deflections exceeded the tolerable deflection. Without rehabilitation or major maintenance the condition of the pavement is expected to deteriorate. A higher number of deflections exceeding tolerable deflection level is expected to be reflected in the results of the next deflection study.

(2) Shoulder Data

The Deflection Study Report and the 2008 Pavement Condition Survey Inventory do not distinguish between the traveled way and the shoulders. The Structural Section memos provide a recommended section for the shoulders.

Shoulders will be rehabilitated and widened. Where the shoulders are to be widened graded chokers will be constructed to provide lateral stability to the edge of pavement. Where the existing width of the shoulders will remain shoulder backing will be provided.

(3) Pedestrian Facility Data

Facility Type and Location(s)(Station , post mile or other reference point)	Meets ADA Standards? (Yes or No for each listed location)	If Facility does not meet ADA Standards, what feature(s) are not ADA compliant? (List features per location)	Status of Each Noncompliant Location [Use the following statements, as appropriate: <ul style="list-style-type: none"> • Will be corrected as part of this project; • Will not be corrected because it is technically infeasible to correct; • This work is outside the scope of this project. This facility and its location have been so documented in the Project History File and this information was submitted to the District ADA Coordinator on (Date) for inclusion in the Department's Transition Plan.]
Sidewalks:	None	N/A	N/A
Curb Ramps:	None	N/A	N/A
Crosswalks:	None	N/A	N/A
Driveways:	None	N/A	Driveways do bisect or connect to a pedestrian facility
Shared bicycle/ pedestrian facility:	None	N/A	N/A
Others:	None	N/A	N/A

Remarks: The project is located within a section of US 395 that is a rural 2-lane highway. No pedestrian facilities are located within the limits of the project.

(4) Bicycle Path Data

Deficiency	Location
N/A	None

Remarks: There are no bicycle paths within the limits of the project.

4C: Structures Information

Width Between Rails			Replace Bridge Railings	Vertical Clearance			Work Identified in STRAIN	Replace Bridge Approach Rail	Replace Bridge Approach Slab
Exist	3R Std	Prop	(Y or N)	Exist	3R Std	Prop	(Y or N)	(Y or N)	(Y/N)
None	NA	NA	NA	NA	NA	NA	NA	NA	NA

Remarks: There are no structures within the project limits.

4D: Vehicle Traffic Data

2009 Year AADT	3,350
Construction Year 2015 AADT	3,710
5-Year AADT (2020 AADT)	4,030
10-Year ADT (2025 AADT)	4,390
20-Year AADT (2035 AADT)	5,190

5 Year TI (2020 TI)	8.5
10 Year TI (2025 TI)	9.0
20 Year TI (2035 TI)	10.0
Construction Year DHV (2015 DHV)	640
5 Year DHV (2020 DHV)	690
10 Year DHV (2025 DHV)	750
20 Year DHV (2035 DHV)	890
2009 Directional Split	52.51 %
2009 Trucks	11.0 %

The latest accident data was pulled for a 3-year period beginning January 1, 2007 through December 31, 2009 for the segment of US 395 within the project limits. The table below summarizes the accident history.

US 395 Accident History (January 1, 2007 Through December 31, 2009)										
Location	Number of Accidents				Accident Rate (Acc/MVM)*					
					Actual			Statewide Average		
	Fatal	Injury	F&I**	Total	Fatal	F&I**	Total	Fatal	F&I**	Total
US 395	0	1	1	12	0.00	0.04	0.53	0.027	0.37	0.85

* Accidents per Million Vehicle Miles

** Fatal Plus Injury

Source: Caltrans District 9 TASAS Table B, January 2007 through December 2009. Year 2009 information was the latest available information.

The most current accident data is for the period from 1/01/2007 to 12/31/2009. For this three-year study period, twelve collisions were recorded. There were no fatalities and only one injury. Eleven of the collisions were classified as property damage only (PDO). There was one multi-vehicle collision. Two of the collisions were with wildlife.

Analysis of the accident data shows there were two accidents between 70.0 and 70.1, both involving northbound vehicles hitting objects on the road. There is a large cut that sheds rocks on the right side of the road at this location. This project proposes to mitigate rockfall by scaling, rock netting, or a passive drapery system here

Five of the twelve accidents involved vehicles that "ran off the road" as the move preceding the collision. Widening shoulders and installing rumble strips where shoulders will be 8 feet wide will provide space for errant vehicles to recover, as well as warning drivers when their vehicles are leaving the travelled way. Construction of a consistent and wider shoulder width and installation of rumble strips should help reduce this contributing factor to vehicle accidents.

Five of the accidents showed "ran off road" as the move preceding the collision. Construction of a consistent and wider shoulder width and installation of rumble strips should help reduce this contributing factor to vehicle accidents.

4E: Materials:

The structural section consists of road mix AC, compacted bituminous treated crushed gravel or stone surfacing, compacted screened gravel, compacted pit run gravel type B AC, gap graded rubberized AC, polymer modified chip seal, asphalt rubber chip seal, dense graded polymer modified HMA and high binder asphalt rubberized HMA.

With additional material testing and HQ approval this project could become a candidate for the use of Cold Foam In-Place Recycling (CFIPR). Factors supporting use of CFIPR include:

- 1) The base and native material appears to be granular and well draining with very little clay composition.
- 2) There is no pavement fabric within the project limits.
- 3) The Traffic Index is below 12.
- 4) There are no locations where water pumps up into the pavement. Perennial water flows in side ditches within the project limits, but the structural section is sufficiently elevated to eliminate the possibility of fines washing away in the base or sub-base.

The Bodie Rehabilitation project, a CFIPR contract, was awarded in February 2011 to reconstruct State Route 270 in Mono County. The beginning of the Bodie Rehabilitation project intersects the beginning of this project so the native soil conditions and environmental conditions are similar. Extensive subsurface soil testing and investigation led to the determination that SR 270 would be a good candidate for a rehabilitation/reconstruction strategy utilizing CFIPR with an HMA overlay. It has proven to be a cost effective rehabilitation/reconstruction strategy; the Bodie Rehab was awarded for \$3,710,000 (bid items only) to reconstruct 19.6 lane miles of highway, \$189,286 per lane mile. According to the *2007 California State of the Pavement* report in Fiscal Year 06/07 the cost for rehabilitation projects, including the upgrade of related facilities, averaged \$1,100,000 per lane mile.

Additional testing and approvals will be required prior to committing to CFIPR as the rehabilitation method.

- 1) Additional corings will be required to confirm that the existing pavement does not exceed an average depth of 10". Existing pavement core depths range between 7.2" and 10.9" with an average depth of 9.4".
- 2) Base material and native material will need to be sampled to show that the fine content is between 2% and 15%.
- 3) Clay cannot be present. Tests of the native material and base will need to show that the plastic limit is below 12 and the liquid limit is below 50.
- 4) Approval as a candidate CFIPR project from the HQ Office of Pavement Engineering in the Division of Pavement will be required.

5. CORRIDOR AND SYSTEM COORDINATION

Within the project limits, US 395 is a 2-lane conventional highway in a rural setting. The lane widths are 12-foot and the paved shoulder width varies from 1-foot to 4-foot for most of the project. The northernmost 1.1 miles of the project, where the highway enters Bridgeport, has 8-foot shoulder widths.

The character of the roadway alignment changes significantly within the project limits. From the junction with SR 270 at PM 69.85 until approximately the junction with Green Creek Road, the alignment follows a deep, narrow canyon with Virginia Creek running close to the highway on the left side. The posted speed limit in this section is 65mph.

At the junction with Green Creek Road, the highway enters a broad valley exposing ranchland to the west. Virginia Creek flows parallel to the west of the highway and the highway profile grade flattens. Three steep cut slopes exist on the right side at approximately PM 72.0, 72.9, and 73.2 adjacent to Point Ranch.

North of Point Ranch (PM 73.2) the highway enters a flat valley with irrigated pastureland on both sides of the highway. Virginia Creek is far to the west of the highway. A Southern California Edison substation exists to the west of the highway right of way at PM 73.6. At PM 74.8, the highway enters the south side of the small community of Bridgeport, the county seat for Mono County. Several local roads and driveways provide access to local housing and businesses. At PM 75.9, on the right, is the junction with Jack Sawyer Road. Jack Sawyer Road provides access to Mono County's Maintenance Facility and also to the Caltrans Bridgeport Maintenance Station. The northern limit of the project is at Jack Sawyer Road.

6. ALTERNATIVES

1K. Rehabilitation Strategy

Alternative 1

Alternative 1 will rehabilitate the existing pavement. A 20 year pavement design life will be used. It is proposed to construct 4-foot paved shoulders for approximately two miles on both sides of the roadway from PM 69.9 to approximately PM 71.95, just north of the junction with Green Creek Road. 8-foot paved shoulders with ground-in rumble strip are proposed from approximately PM 71.95 to the end of the project at PM 75.9.

This alternative proposes several operational and safety improvements:

- Rehabilitate the failing pavement
- Widen shoulders to 4 feet, and 8 feet where design exceptions do not apply
- Install rumble strips in rural sections where 8 foot shoulders are proposed
- Repair and replace aging drainage systems
- Improve clear recovery where design exceptions do not apply
- Correct the pavement cross slope
- Mitigate rockfall on the roadway
- Construct NB deceleration lane at Jack Sawyer Road
- Manage access by consolidating or eliminating driveways and/or road connections where possible

- Improve sight distance at the “Point Ranch Curves” PM 73.0 and PM 73.3
- Lower/modify the profile grade between PM 74.0 and 74.6 to gain stopping sight distance at 2 crest vertical curves.

Crack retardation governed the design of this rehabilitation. The results of the Life Cycle Cost Analysis indicates that rehabilitating the mainline pavement by cold-planning 0.1’ and overlaying with 0.2’ Rubberized Hot Mix Asphalt (RHMA) has the lowest life cycle cost. A deflection study will be required 18 months prior to RTL. As discussed above in Section 5, “Materials” of this report, this project could be a good candidate for CFIPR as the method for pavement rehabilitation. Additional testing will be required to determine if HQ approval will be sought. If a CFIPR is ultimately selected as the method of rehabilitation further deflection studies will not be required. In this report and for programming purposes, it is proposed to perform a conventional rehabilitation method by milling 0.1’ failing HMA and replacing with 0.2’ RHMA.

Some of the specific physical features proposed for this alternative include:

- Off-setting of the Changeable Message Sign (CMS) at PM 74.
- Rock netting the rock cut between PM 70.0 and PM 70.1
- 100 foot long retaining wall at PM 72.1
- 350 foot long retaining wall at PM 72.9
- Driveway reconstruction at Point Ranch – PM 73.3
- Cutting back the slopes at “Point Ranch Curves” PM 73.0 and 73.3 – includes power pole relocation
- Cutting back the slopes to allow for shoulder widening at the crest vertical curves at PM 74.1 and PM 74.5. Includes power pole and fiber optic relocation
- Lower the profile grade at locations between PM 74.0 and 74.6.
- Culvert extension and fill construction at PM 74.6.

This project has been scoped as a 3R project. Exceptions to mandatory design standards are approved for nonstandard shoulder width, and for nonstandard stopping sight distance at one horizontal curve. Exceptions to advisory design standards are approved for fixed objects within the clear recovery zone and side slopes. The estimated cost for Alternative 1 is \$9,519,000 (FY 12).

Capital Cost – Alternative 1 (FY 2012)

<u>Component</u>	<u>Cost</u>
Roadway	\$ 8,478,000
Structures	\$ 0
Right of Way	\$ 941,000
Environmental Mitigation	\$ 100,000
TOTAL:	\$ 9,519,000

On December 1, 2010 a Project Development Team (PDT) meeting was held to discuss the scope. It was agreed at that meeting to include the 2 “Point Ranch Curve” locations in this project as improvements to stopping sight distance. Offsetting the cut slopes to get stopping sight distance at PM 73.0 and PM 73.3 will cost approximately \$400,000 in earthwork, utility relocation, and right of way acquisition. This cost is factored into the Alternative 1 Capital Cost Estimate Table above.

Alternative 2

Alternative 2 proposed rehabilitation of the existing pavement and construction of improvements to current standards. This alternative was abandoned because of 1) high construction cost, 2) high costs for new right-of-way acquisition, and 3) high cost of environmental impacts.

Alternative 2 would involve cutting back 100 foot high rock cliffs, construction of 4,600 feet of retaining walls in Virginia Creek, placing fill in riparian habitat, and placing fill in wetlands.

The estimated total cost to construct Alternative 2 is \$ 32,140,000 (FY 12).

Capital Cost – Alternative 2 (FY 2012)

<u>Component</u>	<u>Cost</u>
Roadway	\$27,805,000
Structures	\$ 0
Right of Way	\$ 4,235,000
Environmental Mitigation	\$ 100,000
TOTAL:	\$32,140,000

Alternative 3

Alternative 3 is the no-build alternative. No work to rehabilitate the existing pavement or address 3R standards would be performed.

Alternative 1 is the Recommended Programming Alternative.

1L. Design Exceptions

A “Safety Screening for 2R Status” was performed to identify and analyze existing conditions in order to assess the project’s 2R (Resurfacing and Restoration) eligibility. The Safety Screening determined the project does not qualify as a 2R project, and must proceed under 3R guidelines.

Exceptions to Mandatory Design Standards are approved for:

- Nonstandard stopping sight distance for one horizontal curve
- Nonstandard shoulder width

Exceptions to Advisory Design Standards are approved for:

- Nonstandard clear recovery zone
- Nonstandard side slopes

1M. Environmental Compliance

The anticipated environmental document for the proposed project is a Negative Declaration/Finding of No Significant Impact. Refer to the attached Preliminary Environmental Analysis Report (Attachment D) for greater detail.

It is anticipated that it will take 33 months to obtain environmental approval; biological studies will be the critical path for delivery of the FED. Willow tree mitigation will be

required 1.

1N. Hazardous Waste Disposal Site Required?

No hazardous waste disposal site is anticipated to be required.

1O. Other Agency Involvement:

Permits and consultation will be required from the Army Corp of Engineers (404 Permit), Lahontan Regional Water Quality Board (401 Permit), California Department of Fish and Game (1602 Permit), and the US Fish and Wildlife Service.

Coordination will be required with Mono County for the closure of the road connection at PM 75.65 and for development of an overall access management strategy.

1P. Material and/or Disposal site needs/availability

A material and/or disposal site will most likely not be required. It is planned to balance the quantities of cut and fill placing most of the fill in the hole at PM 72.8 on the right side of the highway.

1Q. Highway Planting and irrigation

Revegetation strategies will be performed where new slopes are created or existing ones are disturbed. Revegetation of disturbed soil is proposed as a long term stormwater pollution prevention measure which reduces slope erosion.

1R. Roadside Design and Management

Where feasible, a clear zone will be provided to allow errant vehicle recovery.

1S. Stormwater Compliance

Standard BMPs will be incorporated in to the project. Measures will be taken to prevent the transport of sediment into Virginia Creek and the wetlands of the Bridgeport Valley. The contract for this project will include the requirement to prepare a Stormwater Pollution Prevention Plan.

1T. Right of Way Issues

Refer to the Right of Way Data Sheet (Attachment E) for further details.

1U. Railroad Involvement

There is no railroad involvement with this project.

6L. Salvaging and recycling of hardware and other non-renewable resources:

Recycled asphalt concrete may be used on this project.

6M. Prolonged Temporary Ramp Closures

N/A – There are no ramps within the limits of

6N. Recycled Materials:

Cold Foam In-Place Recycling (CFIPR) may be used on this project pending the results of additional material studies.

6O. Local and Regional Input

No local or regional input for this project has been received.

6P. What are the consequences of not doing this entire project?

The existing pavement will continue to deteriorate and create increased maintenance expenditures and decreased ride performance. If a restoration or rehabilitation treatment is not performed in the near future, the pavement will continue to degrade to a state that requires major repairs and expenditures each year.

6Q. List all alternatives studied, Cost, Reasons not recommended, etc:

Alternative 1 will rehabilitate the existing pavement. It proposes to construct 4-foot paved shoulders for approximately two miles on both sides of the roadway from PM 69.9 to approximately 72.15 (junction with Green Creek Road. 8-foot paved shoulders with ground-in rumble strip are proposed from approximately PM 72.15 to PM 75.9 (end of project at junction with Jack Sawyer Road except for two sections where the roadway abuts steep existing cut slopes. Design exceptions have been approved to reduce the foot print and the cost of this alternative. The estimated cost is \$9,519,000.

Alternative 2 proposed rehabilitation of the existing pavement and construction of improvements to full 3R standards per Design Information Bulletin 79-03. This alternative was abandoned because of 1) high construction cost, 2) high costs for new right-of-way acquisition, and 3) environmental impacts. The estimated total cost to construct Alternative 2 exceeds \$32,140,000.

Alternative 3 is the no-build alternative. No work to rehabilitate the existing pavement or address 3R standards would be performed.

Alternative 1 is the Recommended Programming Alternative.

7. TRANSPORTATION MANAGEMENT

2A. Traffic Management Plan

Temporary lane closures with reversible traffic control will be required. Refer to the attached TMP Checklist – Attachment G.

2B. Vehicle Detection Systems

None.

8. ENVIRONMENTAL DETERMINATION/DOCUMENT

A Negative Declaration/Finding of No Significant Impact is the anticipated environmental document for the project as proposed. Refer to the Preliminary Environmental Analysis Report (PEAR) (Attachment D).

9. FUNDING / SCHEDULING

9A: Cost Estimate

<u>Pavement Work</u>	<u>Lane-Miles</u>	<u>Number</u>	<u>*Cost</u>
Flex Overlay of Flex Pavement (recycle not included) ^{1,2}	_____		_____
Rigid Overlay of Flex Pavement	_____		_____
Hot Recycled AC ^{1,2}	_____		_____
Cold Recycled AC ^{1,2}	_____		_____
Reconstruct Lane(s)	_____		_____
Crack Seal & Flex Overlay of Rigid Pavement ²	_____		_____
Rigid Overlay of Rigid Pavement ²	_____		_____
Rigid Pavement Rehabilitation (List appropriate work type: grind, slab replacement, spall repair, grout & seal random cracks, lane replacement, joint seal, etc.) **	_____		_____
Ramps and OC/UC Approaches	_____	_____	_____
Edge Drain (side mi)	_____		_____
Bridge Approaches (ground, replaced)	_____	_____	_____
Total Lane-Miles of Rehabilitation	12.0	_____	<u>\$3,700,000</u>

STRAIN Work **
 (List Structures:)

COSTS SUBTOTAL \$3,700,000

- Notes: 1. Include cost to remove and replace localized failed areas.
 2. Include cost of shoulder backing material for increased thickness at shoulder edge, as needed.
 * If duplicated in other items, show cost in parenthesis.
 ** Add additional lines as necessary.

<u>Does the Project Include?</u>	<u>Yes/No</u> *	<u>Cost</u>
Main Line Widening (lanes and/or shoulders) _____	Yes	\$ 704,000
Bridge Widening and Rail Upgrade	_____	_____
Included in Project	_____	_____
Deferred (why) ** _____	_____	_____
Bridge Rail Upgrade - Without Widening	_____	_____
Included in Project	_____	_____
Deferred (why) ** _____	_____	_____
Vertical Clearance Adjustment	_____	_____
Drainage Rehabilitation	Yes	\$55,000
(List appropriate work type: roadbed surface, roadside, off site, subsurface, etc.) **	_____	_____
Pedestrian Facilities	_____	_____
Alternations Required (List): ** _____	_____	_____
 <u>Safety</u> **	 <u>Yes/No</u> *	 <u>Cost</u>
Rumble Strip	Yes	\$19,000
Superelevation Correction	Yes	_____
Vertical Alignment	_____	_____
Horizontal Alignment	_____	_____
Left/Right-Turn Storage/Widening/Lengthening _____	Yes	\$450,000
Signal Upgrade	_____	_____
Median Barrier (State type: e.g., PCC, Thrie Beam)	_____	_____
Metal Beam Guardrails (New)	Yes	\$70,000
Concrete Guardrail (New)	_____	_____
Roadside Cleanup	_____	_____
Gore Cleanup	_____	_____
Electroliers	_____	_____
Rock Netting	Yes	\$310,000
 <u>Roadside Management</u>	 <u>Yes/No</u> *	 <u>Cost</u>
Gore Area Pavement	_____	_____
Pavement beyond Gore Area	_____	_____
Miscellaneous Paving	_____	_____
Maintenance Vehicle Pull outs	_____	_____
Off-Freeway Access (gates, stairways, etc.)	_____	_____
Roadside Facilities	_____	_____
Retaining Walls	Yes	\$315,000
 <u>Traffic Control</u>	 Yes	 \$550,000
<u>Other</u> (Mobilization Cost, Permits, Traffic Items) **	Yes	\$609,000
SUM OF SUBTOTALS		<u>\$6,782,000</u>
25% Contingency (of Subtotals)		<u>\$1,695,500</u>

<u>Utility Relocation</u>	Yes	\$640,000
<u>Railroad Agreements</u>		
<u>Right of Way</u>	Yes	\$285,000
<u>Environmental Compliance</u>		\$100,000
<u>Other Right of Way (permits, fees)</u>		\$16,000
<u>TOTAL RIGHT OF WAY</u>		<u>\$1,041,000</u>

TOTAL PROJECT COST \$9,518,500

Notes: * If duplicated in other items, show cost in parenthesis.
 ** Add additional lines as necessary. Do not include support costs.

9B - Project Support:

This project is being proposed for funding in the 2012 SHOPP under 20.20.201.120, Roadway Rehabilitation Program. It is anticipated that programming for construction would occur in the 2017/2018 FY.

The support costs are estimated at \$5,132,000. The support costs and escalated capital costs for Alternative 1 are summarized in the following table. (\$1,000's)

Support Cost Programming Table (Alt 1)

Project Support Cost Component	Fiscal Year				Total
	2012/13	2014/15	2015/16	2017/18	
PA & ED	\$ 1,143				\$1,143
PS&E		\$ 1,780			\$ 1,780
R/W Support			\$ 370		\$ 370
Construction Support				\$ 1,839	\$ 1,839
Total	\$ 1,143	\$ 1,780	\$ 370	\$ 1,839	\$5,132

The escalation rate for support costs is 3.1%

Capital Cost Programming Table (Alt 1)

Project Capital Cost Component	Fiscal Year		Total
	2015/16	2017/18	
RW Capital	\$ 1,298		\$1,298
Construction Capital		\$ 10,727	\$ 10,727
Total	\$ 1,298	\$ 10,727	\$12,025

The escalation rate for capital costs is 4%

9C - Project Schedule:

Milestones	Delivery Date (Month, Day, Year)
Begin Project	01/02/2013
Begin Environmental	01/11/2013
PA & ED	10/15/2015
Right of Way Maps	10/02/2015
Regular Right of Way	03/18/2016
Project PS&E	11/25/2016
Right of way Cert	08/04/2017
Ready to List	08/04/2017
Contract Acceptance	10/12/2018

10. FEDERAL COORDINATION

This project is eligible for federal-aid funding and is considered to be STATE-AUTHORIZED under current FHWA-Caltrans Stewardship Agreements.

11. SCOPING TEAM REVIEW SUMMARY:

This project has been reviewed by Maintenance, Traffic, Environmental, Right of Way and Structures. Caltrans Staff have reviewed this proposed project on various dates in 2009. The ABME, District Maintenance Engineer and HQ Program Advisor are all in concurrence with the needs and proposed alternatives for this proposed project. A safety review was held on June 17, 2011.

12. PROJECT REVIEWED BY:

- Field Review with Design, Right of Way, Environmental, and Project Management on October 12, 2010.
- Field Review with Design and the Bridgeport Maintenance Supervisor, Ron Kaiser on May 17, 2011.
- Safety Review held on June 17, 2011
- Constructability Review held on June 17, 2011

13. LIST OF ATTACHMENTS

- A. Project Vicinity/Location Map
- B. Typical Cross Sections
- C. Capital Cost Estimates
- D. Preliminary Environmental Analysis Report (PEAR)
- E. R/W Data Sheets

- F. Preliminary Geotechnical Design Report
- G. Traffic Management Plan
- H. Traffic Data and Design Designation
- I. Deflection Study / Materials Report
- J. Scoping Team Field Review Attendance Roster
- K. PMS Inventory Data
- L. Life Cycle Cost Analysis (LCCA)
- M. Storm Water Data Report Signature Sheet
- N. SB45 Support Cost Summary
- O. Risk Register
- P. Safety Review and Constructability Review Meeting Attendance Sheets

14. DISTRIBUTION LIST

HQ Division of Design (2 Copies)
HQ Program Advisor– Rob Marsh
HQ Division of Engineering Services (DES) -- Andrew Tan
HQ Transportation Programming – Kurt Scherzinger and Rick Guevel
HQ Environmental – Bob Pavlik
HQ Div of Pavmnt Mgt – Rob Marsh
HQ Maintenance: Dan Irvine
 Roger Hunter
 Jim Varney
 Patty-Jo Dickinson
HQ Traffic Operations – Nagi Pagadala
HQ Traffic Safety – Shaila Chowdhury
Project Manager – Tom Meyers
Design Manager – Brian Wesling
Central Region Construction Engineer – Tim Shultz
District Maintenance – Craig Holste
District 9 Traffic Management – Terry Erlwein
Central Region Traffic Design – Mohammed Qatami
Central Region Materials Lab – Dave Dhillon
Central Region Environmental – David Hyatt
Central Region Right-of-Way – Nancy Escallier
District 9 Planning – Ryan Dermody
District 9 Landscape Architect – R. Steve Miller
PPM – Sarah Lesnikowski
District 9 Single Focal Point – Bryan Winzenread
Central Region Surveys – Howard Brunetti (electronic copy)
Central Region Records – Victoria Pozuelo

ATTACHMENT A

Location Map

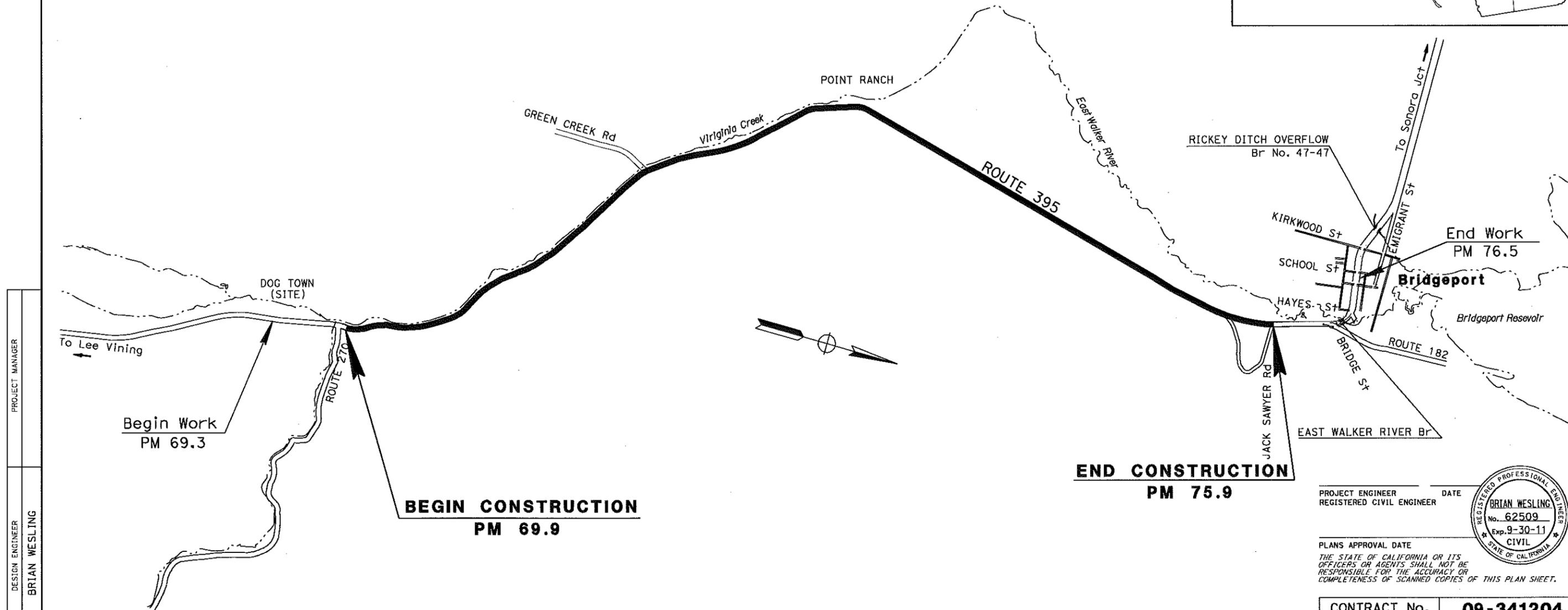
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**PROJECT PLANS FOR CONSTRUCTION ON
 STATE HIGHWAY**

**IN MONO COUNTY NEAR BRIDGEPORT
 FROM 0.1 MILE NORTH OF ROUTE 270
 TO JACK SAWYER ROAD**

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
09	Mno	395	69.9/75.9	1	

LOCATION MAP



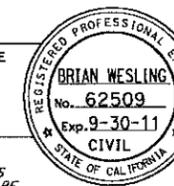
PROJECT MANAGER
 DESIGN ENGINEER
BRIAN WESLING

Begin Work
 PM 69.3

**BEGIN CONSTRUCTION
 PM 69.9**

**END CONSTRUCTION
 PM 75.9**

PROJECT ENGINEER DATE
 REGISTERED CIVIL ENGINEER



PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

CONTRACT No. **09-341204**
 PROJECT ID **090000129**

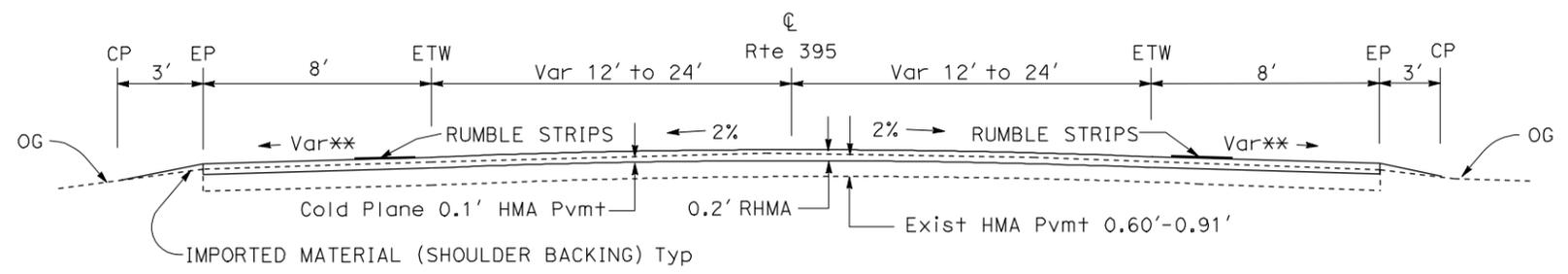
THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

ATTACHMENT B
(Typical Cross Sections)

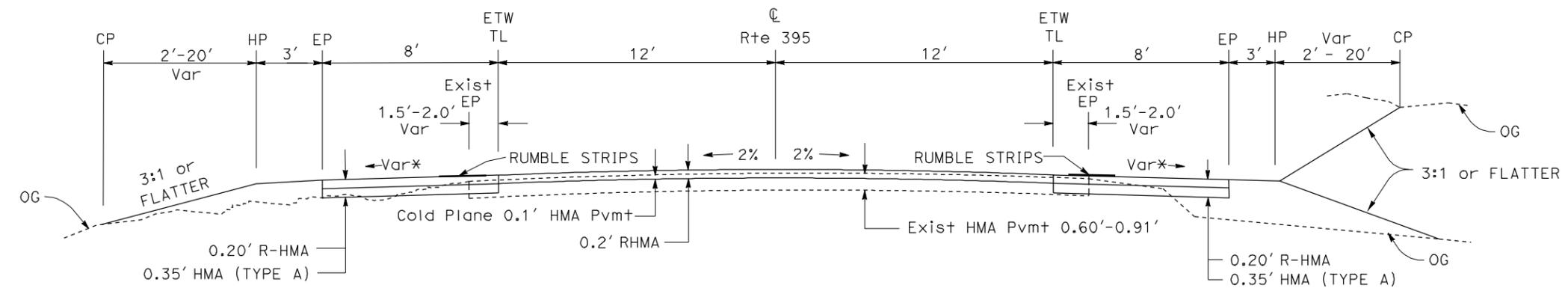
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
REGISTERED CIVIL ENGINEER			DATE		
PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

- NOTES:
1. DIMENSIONS OF PAVEMENT STRUCTURAL SECTIONS ARE SUBJECT TO TOLERANCE SPECIFIED IN THE STANDARD SPECIFICATIONS.
 2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
 3. WHERE NO DIKE WILL BE PLACED SAFETY EDGE WILL BE CONSTRUCTED.
 4. NO RUMBLE STRIP ON 4' SHOULDERS.

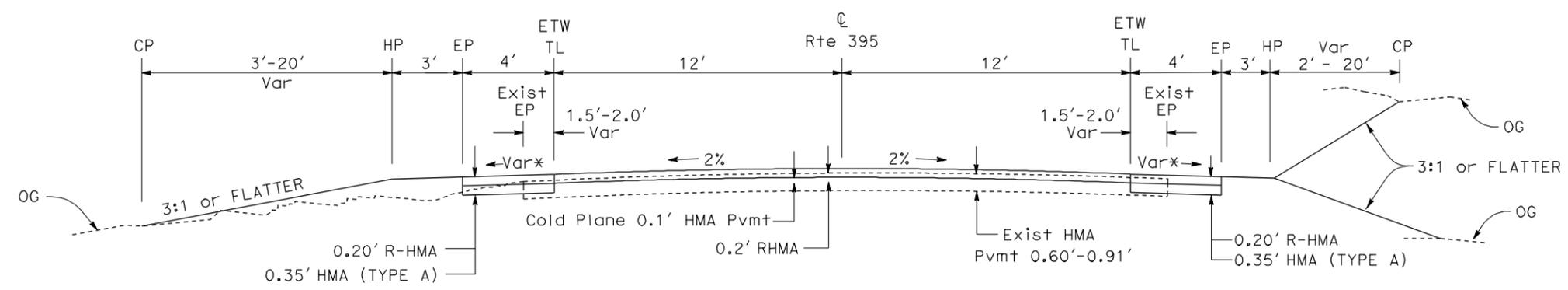
- ABBREVIATIONS:
- TL - TRIM LINE
 - HP - HINGE POINT
 - CP - CATCH POINT
 - * - MATCH CROSS SLOPE OF ADJACENT PAVEMENT IF CROSS SLOPE IS BETWEEN 1.5% & 3.0%
 - ** - MATCH CROSS SLOPE OF EXISTING PAVEMENT IF CROSS SLOPE IS BETWEEN 2% & 5%



NO WIDENING
PM 74.8 to PM 75.9



8 FOOT PAVED SHOULDERS
PM 71.9 to PM 74.8



4 FOOT PAVED SHOULDERS
PM 69.9 to PM 71.9

TYPICAL CROSS SECTIONS
NO SCALE **X-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

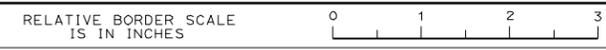
REVISED BY
DATE

CALCULATED-DESIGNED BY
CHECKED BY

FUNCTIONAL SUPERVISOR

DEPARTMENT OF TRANSPORTATION

BORDER LAST REVISED 4/11/2008



USERNAME => s126636
DGN FILE => typical x-sections.dgn

CU 00000

EA 000000

DATE PLOTTED => 12-JUL-2011
TIME PLOTTED => 07:38
LAST REVISION 00-00-00

ATTACHMENT C
(Capital Cost Estimates)

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE



Dist-Co-Rte: 09-Mno-395
 PM: 69.9-75.9
 EA: 09-34120K
 Program Code: 201.120

PROJECT DESCRIPTION:

Limits: On US 395 in Mono County from PM 69.9 to 75.9 between the Bodie Rd. turnoff and Bridgeport.

Proposed Improvement:
 (Scope of Work) Rehab the highway and pave shoulders to 4 feet (PM 69.9-71.95), and 8 feet (PM 71.95-75.9).

Alternative: Alternative 1 - Recommended for Programming

SUMMARY OF PROJECT COST ESTIMATE

I. ROADWAY ITEMS	Sections 1 - 5	\$ 5,295,450
II. ROADSIDE ITEMS	Sections 6 - 7	\$ 20,000
III. ROADWAY ADDITIONS	Sections 8 - 10	\$ 3,162,693
TOTAL ROADWAY	Total of Sections 1 - 10 shown above	\$ 8,478,000
TOTAL STRUCTURES		\$ 0
SUBTOTAL CONSTRUCTION COSTS		\$ 8,478,000
TOTAL RIGHT OF WAY ITEMS (Not Escallated)		\$ 1,041,000
TOTAL PROJECT CAPITAL OUTLAY COSTS		\$ 9,519,000

Rounded

Reviewed by
 District Design Manager:

 (Signature)

7/26/11

 (Date)

Approved by Project Manager:

 (Signature)

7/26/11

 (Date)

Phone Number: 760 877 5214

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE



Dist-Co-Rte: 09-Mno-395
 PM: 69.9-75.9
 EA: 09-34120K
 Program Code: 201.120

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	43,000	CY	\$12	\$516,000	
Imported Borrow	300	CY	\$50	\$15,000	
Clearing & Grubbing	1	LS	\$30,000	\$30,000	
Develop Water Supply	1	LS	\$20,000	\$20,000	
Top Soil Reapplication				\$0	
Stepped Slopes and Slope				\$0	
Rounding (Contour Grading)				\$0	
			Subtotal Earthwork:		\$581,000
 <u>Section 2 - Pavement Structural Section*</u>					
PCC Pvmt Depth	0	CY	\$0	\$0	
PCC Pvmt Depth	0	CY	\$0	\$0	
HMA	8,000	TON	\$100	\$800,000	
Rubberized HMA	16,100	TON	\$140	\$2,254,000	
Lean Concrete Base	0	CY	\$0	\$0	
Cement-Treated Base	0	CY	\$0	\$0	
Aggregate Base	0	CY	\$0	\$0	
Treated Permeable Base	0	CY	\$0	\$0	
Aggregate Subbase	0	CY	\$0	\$0	
Pavement Reinforcing Fabric	0	FT ²	\$0	\$0	
Edge Drains	0	FT	\$0	\$0	
			Subtotal Structural Section:		\$3,054,000
 <u>Section 3 - Drainage</u>					
Large Drainage Facilities	0		\$0	\$0	
Storm Drains	0		\$0	\$0	
Pumping Plants	0		\$0	\$0	
Project Drainage	0		\$0	\$0	
(X-Drains, overside, etc.)					
AC Dike (Type F)	7,600	FT	\$10	\$76,000	
CMP	300	FT	\$300	\$90,000	
RCP	0	FT	\$0	\$0	
			Subtotal Drainage:		\$166,000

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

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE



Dist-Co-Rte: 09-Mno-395
 PM: 69.9-75.9
 EA: 09-34120K
 Program Code: 201.120

<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	425	LF	\$740	\$314,500	
Noise Barriers	0		\$0	\$0	
Barriers and Guardrails	1,170	FT	\$60	\$70,200	
Cold Plane AC Pavement	84,500	SQ YD	\$2	\$126,750	
Water Pollution Control Plan	1		\$20,000	\$20,000	
Hazardous Waste Investigation and/or Mitigation Work	0		\$0	\$0	
Willow Tree Replacement	1	LS	\$100,000	\$100,000	
Resident Engineer Office	1	LS	\$20,000	\$20,000	
Move CMS	1	LS	\$55,000	\$55,000	
Rock Netting	38,300	FT ²	\$9	\$344,700	
				\$0	
			Subtotal Specialty Items:	\$1,051,150	

<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	0	LS	\$0	\$0	
Roadway Striping	1	LS	\$150,000	\$150,000	
Traffic Signals	0	LS	\$0	\$0	
Overhead Sign Structures	0	LS	\$0	\$0	
Roadside Signs	51	EA	\$300	\$15,300	
Traffic Control Systems	100	DAY	\$2,200	\$220,000	
Traffic Management Plan	0	LS	\$0	\$0	
Construction Area Signs	1	LS	\$4,000	\$4,000	
Traffic Handling (CMS)	3	EA	\$8,000	\$24,000	
Temporary Detection System	0	LS	\$0	\$0	
Staging	0	LS	\$0	\$0	
Maintain Traffic	1	LS	\$30,000	\$30,000	
	0	LS	\$0	\$0	
	0	LS	\$0	\$0	
			Subtotal Traffic Items:	\$443,300	

TOTAL ROADWAY ITEMS Sections 1 thru 5 \$5,295,450

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE



Dist-Co-Rte: 09-Mno-395
 PM: 69.9-75.9
 EA: 09-34120K
 Program Code: 201.120

II. ROADSIDE ITEMS

<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	0		\$0	\$0	
Replacement Planting	0		\$0	\$0	
Irrigation Modification	0		\$0	\$0	
Relocate Existing Irrigation	0		\$0	\$0	
Facilities	0		\$0	\$0	
Irrigation Crossovers	0		\$0	\$0	
	0		\$0	\$0	
	0	LS	\$0	\$0	
	0		\$0	\$0	
	0	LS	\$0	\$0	
	0		\$0	\$0	
Subtotal Planting and Irrigation Section:					\$0

Section 7: Roadside Management and Safety Section

Vegetation Control Treatments	0	LS	\$0	\$0	
Gore Area Pavement	0	LS	\$0	\$0	
Pavement beyond the gore area	0	LS	\$0	\$0	
Miscellaneous Paving	0	LS	\$0	\$0	
Errosion Control	1	LS	\$10,000	\$10,000	
Slope Protection	1	LS	\$10,000	\$10,000	
Side Slopes/Embankment Slopes	0	LS	\$0	\$0	
Maintenance Vehicle Pullouts	0	LS	\$0	\$0	
Off-freeway Access (gates, stairways, etc.)	0	LS	\$0	\$0	
Roadside Facilities (Vista Points, Transit, Park & Ride)	0	LS	\$0	\$0	
Relocating roadside facilities/features	0			\$0	
	0	LS	\$0	\$0	
	0	LS	\$0	\$0	
	0	LS	\$0	\$0	
Subtotal Roadside Management and Safety Section:					\$20,000

TOTAL ROADSIDE ITEMS Sections 6 thru 7 \$20,000

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE



Dist-Co-Rte: 09-Mno-395
 PM: 69.9-75.9
 EA: 09-34120K
 Program Code: 201.120

III. ROADWAY ADDITIONS

Section 8 - Minor Items

				<u>Item Cost</u>	<u>Section Cost</u>
	<u>\$5,315,450</u>	x	<u>0.10</u>	=	<u>\$531,545</u>
	(Subtotal Sections 1 thru 7)		(5 to 10%)		
				Minor Items:	<u>\$531,545</u>

Section 9 - Roadway Mobilization

	<u>\$5,846,995</u>	x	<u>0.10</u>	=	<u>\$584,700</u>
	(Subtotal Sections 1 thru 8)		(10%)		
				Roadway Mobilization:	<u>\$584,700</u>

Section 10 - Supplemental Work & Contingencies

Supplemental Work

	<u>\$5,846,995</u>	x	<u>0.10</u>	=	<u>\$584,700</u>
	(Subtotal Sections 1 thru 8)		(5 to 10%)		

Contingencies

	<u>\$5,846,995</u>	x	<u>0.25</u>	=	<u>\$1,461,749</u>
	(Subtotal Sections 1 thru 8)		(**%)		

Supplemental Work & Contingencies: \$2,046,448

TOTAL ROADWAY ADDITIONS Sections 8 thru 10: \$3,162,693

TOTAL ROADWAY: \$8,478,143
 (Subtotal Sections 1 thru 10)

Estimate

Prepared by:

Carne Lowgren

Phone: 872-0636

7-26-11
 (Date)

**Use appropriate percentage per PDPM, Part 3 Chapter 20.

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE



Dist-Co-Rte: 09-Mno-395
 PM: 69.9-75.9
 EA: 09-34120K
 Program Code: 201.120

II. STRUCTURE ITEMS

	STRUCTURE		
	No. 1	No. 2	No. 3
Bridge Name	_____	_____	_____
Structure Type	_____	_____	_____
Width (out to out) - (ft)	<u>0</u>	<u>0</u>	<u>0</u>
Span Length - (ft)	<u>0</u>	<u>0</u>	<u>0</u>
Total Area - ft ²	<u>0</u>	<u>0</u>	<u>0</u>
Footing Type (pile/spread)	_____	_____	_____
Cost Per ft ² (incl. 10% mobilization & 25% contingencies)	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Total Cost for Structure	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Other	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>

* Add additional structures as necessary

SUBTOTAL STRUCTURES ITEMS _____ \$0

Railroad Related Costs (Not incl. in R/W Est) _____ \$0

TOTAL STRUCTURES ITEMS _____ \$0

COMMENTS:

Estimate
 Prepared by: _____ Phone: _____
Carne Lowgren (Date)

(If appropriate, attach additional pages as backup)

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE



Dist-Co-Rte: 09-Mno-395
 PM: 69.9-75.9
 EA: 09-34120K
 Program Code: 201.120

III. RIGHT OF WAY ITEMS

	Current Values (Future Use)	Escalation <u>Rates</u>		Escalated Values*
Acquisition, including excess lands and damages to remainder(s) and Goodwill	<u>\$284,968</u>	5.0%	-	<u>\$329,886</u>
Utility Relocation (State share)	<u>\$640,090</u>	10.0%	-	<u>\$851,959</u>
Project Permit Fees	<u>\$5,288</u>	NA	-	<u>\$5,288</u>
Mitigation cost	<u>\$100,000</u>	NA	-	<u>\$100,000</u>
Title and Escrow Fees	<u>\$11,000</u>	NA	-	<u>\$11,000</u>
Construction Contract Work	<u>\$0</u>	0.0%	-	<u>\$0</u>
	<u>\$1,041,346</u>			
TOTAL RIGHT OF WAY**				<u>\$1,298,133</u>

ESCALLATED VALUE*

Date to which Values are Escalated: 2014

* Escalated to assumed year of advertising.

** Current total value for use on Sheet 1

Estimate
 Prepared by:  Phone: 630 8/18/11
 Brian Wesling (Date)

(If appropriate, attach additional pages and backup including Right of Way Data Sheet and Environmental Mitigation and Compliance Cost Estimate Sheet).

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE



Dist-Co-Rte: 09-Mno-395
 PM: 69.9-75.9
 EA: 09-34120K
 Program Code: 201.120

PROJECT DESCRIPTION:

Limits: On US 395 in Mono County from PM 69.9 to 75.9 between the Bodie Rd. turnout and Bridgeport.

Proposed Improvement:
 (Scope of Work) Full Standard - Rehab the highway and 8' shoulders PM 69.9-75.90. Correct Stopping Sight Distance, CRZ, Vertical Curves. Rock blasting, 4600 ft of retaining walls.

Alternative: Alternative 2 - Full Standard - Not Recommended for Programming

SUMMARY OF PROJECT COST ESTIMATE

I. ROADWAY ITEMS	Sections 1 - 5	\$ 17,362,300
II. ROADSIDE ITEMS	Sections 6 - 7	\$ 70,000
III. ROADWAY ADDITIONS	Sections 8 - 10	\$ 10,372,219
TOTAL ROADWAY	Total of Sections 1 - 10 shown above	\$ 27,805,000
TOTAL STRUCTURES		\$ 0
SUBTOTAL CONSTRUCTION COSTS		\$ 27,805,000
TOTAL RIGHT OF WAY ITEMS (Not Escallated)		\$ 4,335,000
TOTAL PROJECT CAPITAL OUTLAY COSTS		\$ 32,140,000

Rounded

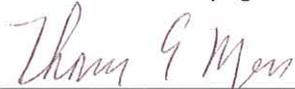
Reviewed by
 District Design Manager:



 (Signature) 7/26/11

 (Date)

Approved by Project Manager:



 (Signature) 7/26/11

 (Date)

Phone Number: 760 872-5214

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE



Dist-Co-Rte: 09-Mno-395
 PM: 69.9-75.9
 EA: 09-34120K
 Program Code: 201.120

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	620,000	CY	\$14	\$8,680,000	
Imported Borrow	0	CY	\$0	\$0	
Clearing & Grubbing	1	LS	\$50,000	\$50,000	
Develop Water Supply	1	LS	\$40,000	\$40,000	
Top Soil Reapplication				\$0	
Stepped Slopes and Slope				\$0	
Rounding (Contour Grading)				\$0	
			Subtotal Earthwork:		\$8,770,000
 <u>Section 2 - Pavement Structural Section*</u>					
PCC Pvmt <u>Depth</u>	0	CY	\$0	\$0	
PCC Pvmt <u>Depth</u>	0	CY	\$0	\$0	
HMA	9,100	TON	\$100	\$910,000	
Rubberized HMA	18,000	TON	\$140	\$2,520,000	
Lean Concrete Base	0	CY	\$0	\$0	
Cement-Treated Base	0	CY	\$0	\$0	
Aggregate Base	0	CY	\$0	\$0	
Treated Permeable Base	0	CY	\$0	\$0	
Aggregate Subbase	0	CY	\$0	\$0	
Pavement Reinforcing Fabric	0	FT ²	\$0	\$0	
Edge Drains	0	FT	\$0	\$0	
			Subtotal Structural Section:		\$3,430,000
 <u>Section 3 - Drainage</u>					
Large Drainage Facilities	0		\$0	\$0	
Storm Drains	0		\$0	\$0	
Pumping Plants	0		\$0	\$0	
Project Drainage (X-Drains, overside, etc.)	0		\$0	\$0	
AC Dike (Type F)	9,000	FT	\$10	\$90,000	
CMP	1,000	FT	\$300	\$300,000	
RCP	0	FT	\$0	\$0	
			Subtotal Drainage:		\$390,000

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

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE



Dist-Co-Rte: 09-Mno-395
 PM: 69.9-75.9
 EA: 09-34120K
 Program Code: 201.120

<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	4,600	LF	\$740	\$3,404,000	
Noise Barriers	0		\$0	\$0	
Barriers and Guardrails	5,000	FT	\$60	\$300,000	
Cold Plane AC Pavement	90,000	SQ YD	\$2	\$135,000	
Water Pollution Control Plan	1		\$40,000	\$40,000	
Hazardous Waste Investigation and/or Mitigation Work	0		\$0	\$0	
Environmental Mitigation	1	LS	\$100,000	\$100,000	
Resident Engineer Office	1	LS	\$40,000	\$40,000	
Move CMS	1	LS	\$50,000	\$50,000	
Rock Netting	0	FT ²	\$0	\$0	
				\$0	
			Subtotal Specialty Items:	\$4,069,000	

<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	0	LS	\$0	\$0	
Roadway Striping	1	LS	\$150,000	\$150,000	
Traffic Signals	0	LS	\$0	\$0	
Overhead Sign Structures	0	LS	\$0	\$0	
Roadside Signs	51	EA	\$300	\$15,300	
Traffic Control Systems	240	DAY	\$2,000	\$480,000	
Traffic Management Plan	0	LS	\$0	\$0	
Construction Area Signs	1	LS	\$4,000	\$4,000	
Traffic Handling (CMS)	3	EA	\$8,000	\$24,000	
Temporary Detection System	0	LS	\$0	\$0	
Staging	0	LS	\$0	\$0	
Maintain Traffic	1	LS	\$30,000	\$30,000	
	0	LS	\$0	\$0	
	0	LS	\$0	\$0	
			Subtotal Traffic Items:	\$703,300	

TOTAL ROADWAY ITEMS Sections 1 thru 5 \$17,362,300

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE



Dist-Co-Rte: 09-Mno-395
PM: 69.9-75.9
EA: 09-34120K
Program Code: 201.120

III. ROADWAY ADDITIONS

Section 8 - Minor Items

Table with columns: Item Cost, Section Cost. Calculation: (Subtotal Sections 1 thru 7) \$17,432,300 x 0.10 (5 to 10%) = \$1,743,230. Minor Items: \$1,743,230

Section 9 - Roadway Mobilization

Table with columns: Item Cost, Section Cost. Calculation: (Subtotal Sections 1 thru 8) \$19,175,530 x 0.10 (10%) = \$1,917,553. Roadway Mobilization: \$1,917,553

Section 10 - Supplemental Work & Contingencies

Supplemental Work

Table with columns: Item Cost, Section Cost. Calculation: (Subtotal Sections 1 thru 8) \$19,175,530 x 0.10 (5 to 10%) = \$1,917,553

Contingencies

Table with columns: Item Cost, Section Cost. Calculation: (Subtotal Sections 1 thru 8) \$19,175,530 x 0.25 (**%) = \$4,793,883

Supplemental Work & Contingencies: \$6,711,436

TOTAL ROADWAY ADDITIONS Sections 8 thru 10: \$10,372,219

TOTAL ROADWAY: \$27,804,519 (Subtotal Sections 1 thru 10)

Estimate

Prepared by:

Signature of Carne Lowgren

Carne Lowgren

Phone: 872-0636

7-26-11 (Date)

**Use appropriate percentage per PDPM, Part 3 Chapter 20.

http://www.dot.ca.gov/hq/oppd/pdpm/pdpm.htm - pdpm

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE



Dist-Co-Rte: 09-Mno-395
 PM: 69.9-75.9
 EA: 09-34120K
 Program Code: 201.120

II. STRUCTURE ITEMS

	STRUCTURE		
	No. 1	No. 2	No. 3
Bridge Name	_____	_____	_____
Structure Type	_____	_____	_____
Width (out to out) - (ft)	<u>0</u>	<u>0</u>	<u>0</u>
Span Length - (ft)	<u>0</u>	<u>0</u>	<u>0</u>
Total Area - ft ²	<u>0</u>	<u>0</u>	<u>0</u>
Footing Type (pile/spread)	_____	_____	_____
Cost Per ft ² (incl. 10% mobilization & 25% contingencies)	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Total Cost for Structure	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Other	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>

* Add additional structures as necessary

SUBTOTAL STRUCTURES ITEMS _____ \$0

Railroad Related Costs (Not incl. in R/W Est) _____ \$0

TOTAL STRUCTURES ITEMS _____ \$0

COMMENTS:

Estimate
 Prepared by: _____ Phone: _____
Carne Lowgren (Date)

(If appropriate, attach additional pages as backup)

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE



Dist-Co-Rte: 09-Mno-395
 PM: 69.9-75.9
 EA: 09-34120K
 Program Code: 201.120

III. RIGHT OF WAY ITEMS

	Current Values (Future Use)	Escalation Rates		Escalated Values*
Acquisition, including excess lands and damages to remainder(s) and Goodwill	<u>\$1,075,849</u>	<u>5.0%</u>	-	<u>\$1,236,762</u>
Utility Relocation (State share)	<u>\$2,875,000</u>	<u>10.0%</u>	-	<u>\$3,826,625</u>
Project Permit Fees	<u>\$3,244</u>	<u>NA</u>	-	<u>\$3,244</u>
Mitigation cost	<u>\$100,000</u>	<u>5.0%</u>	-	<u>\$115,763</u>
Title and Escrow Fees	<u>\$22,000</u>	<u>NA</u>	-	<u>\$22,000</u>
Clearance and Demo	<u>\$62,790</u>	<u>5.0%</u>	-	<u>\$72,689</u>
Relocation Assistance	<u>\$196,140</u>	<u>5.0%</u>	-	<u>\$227,058</u>
	<u>\$4,335,023</u>			
TOTAL RIGHT OF WAY**				<u>\$5,504,141</u>
				ESCALLATED VALUE*

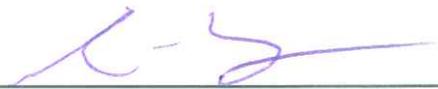
Date to which Values are Escalated: 2014

* Escalated to assumed year of advertising.

** Current total value for use on Sheet 1

Estimate

Prepared by:



 Brian Wesling

Phone:

630

8/18/11

 (Date)

(If appropriate, attach additional pages and backup including Right of Way Data Sheet and Environmental Mitigation and Compliance Cost Estimate Sheet).

ATTACHMENT D

Preliminary Environmental Analysis

Report

PEAR



Preliminary Environmental Analysis Report

Project Information

District	<u>06</u>	County	<u>MNO</u>	Route	<u>395</u>	Post Mile	<u>69.9/75.9</u>	EA	<u>09-34120</u>
Project ID#:	<u>09-0000-0129</u>								
Project Title:	<u>Green Lakes Pavement Rehabilitation</u>								
Project Manager:	<u>Tom Meyers</u>					Phone #:	<u>(760) 872-5214</u>		
Design Manager:	<u>Brian Wesling</u>					Phone #:	<u>(760) 872-0630</u>		
Design Engineer:	<u>Brian Wesling</u>					Phone #:	<u>(760) 872-0630</u>		
Environmental Manager:	<u>Kirsten Helton</u>					Phone #:	<u>(559) 445-6469</u>		
Environmental Planner:	<u>Javier Almaguer</u>					Phone #:	<u>(559) 445-6481</u>		

PSR Summary Statement

The anticipated environmental document for the proposed project is a Negative Declaration/Finding of No Significant Impact. This document level has been selected based on the impacts to Greater sage-grouse and Lahontan cutthroat trout which is anticipated to be mitigated below the threshold of significance as defined by CEQA. The California Department of Transportation would act as the lead agency in the preparation of a joint NEPA/CEQA (National Environmental Policy Act/California Environmental Quality Act) environmental document. Caltrans will serve as the NEPA lead agency under its assumption of responsibility pursuant to 23 U.S. Code 327. The estimated time to obtain environmental approval is 32 months from the start of environmental studies. Assuming a start date of January 11, 2013, environmental studies would begin February 01, 2013 after project preliminary maps and permits to enter are completed. Final environmental document would be anticipated by September 2015.

It is anticipated multiple environmental studies and reports will be required for this project including (but not limited to): archaeology survey report, prehistoric/historic phase II studies, historic resource evaluation report, historic property survey report-with findings, natural environment study, wetland delineation report, biological assessment, Section 7 consultation and a Biological Opinion issued by the US Fish and Wildlife Service (USFWS). It is currently estimated that biology will be the critical path for the delivery of the environmental document. A 404, and 1602 permit will be required to be issued by the Army Corps of Engineers and DFG, respectively. A 401 permit would be required from the Regional Water Quality Board. Willow tree replacement is expected to be a part of this project with an estimated cost of \$95,000 and if Alternative 2 is selected wetland habitat mitigation is also expected as a requirement of this project with an estimated cost of \$100,000.

Project Description

The California Department of Transportation (Caltrans), proposes to rehabilitate approximately 6 miles of the pavement on US 395 in Mono County from the junction with SR 270 (Bodie Road) to Jack Sawyer Road in the community of Bridgeport.

Purpose and Need

The purpose of the project is to restore the roadway to a condition that will require minimal maintenance, extend the service life of the pavement, and replace and upgrade highway appurtenances and facilities. This section of US 395 was identified for rehabilitation in the 2007 Pavement Condition Survey and shows major distress. Alligator B cracking, which is characterized by interconnecting or interlaced cracking in the asphalt layer, is evident from PM 69.8 to PM 72.4.

Description of Work

The California Department of Transportation (Caltrans) proposes to rehabilitate the roadway pavement of US 395 in Mono County from the junction with SR 270 (Bodie Road) to Jack Sawyer Road in the community of Bridgeport. Proposed construction would include reconstruction of shoulders and construction of shoulders where needed. It is also proposed to correct the "stopping sight distance" at three horizontal curves, and retrofit culverts as needed. Some work would include modifying existing cut slopes and utility relocation, the total length of the project is 6.0 miles

Alternatives

There are three alternatives being considered for this project.

Alternative 1 This alternative proposes to construct 4-foot paved shoulders for approximately two miles on both sides of the SR 395 from PM 69.9 to approximately PM 71.95 just north of the junction with Green Creek Road and 8-foot paved shoulders with ground-in rumble strip are proposed from approximately PM 72.15 to the end of the project at PM 75.9. The project would improve sight distance at the "Point Ranch Curves" from PM 73.0 and PM 73.3. Design exceptions would be proposed to avoid or minimize potential environmental impacts.

Alternative 2 This alternative proposes to construct the project to full 3R standards. This would include 8-foot paved shoulders with ground-in rumble strip from PM 71.95 to PM 75.9. This alternative would be constructed without design exceptions and would include cutting back 100 foot high rock cliffs, construction of multiple retaining walls in Virginia Creek, and placing fill in riparian habitat, wetlands.

Alternative 3 This alternative is the no-build alternative.

Funding

State Federal

This project is being proposed for funding in the 2010 SHOPP under 20.20.201.120, Roadway Rehabilitation Program. It is anticipated that programming for construction would occur in the 2013/2014 FY.

Anticipated Environmental Approval

CEQA

NEPA

- | | |
|---|--|
| <input type="checkbox"/> Categorical Exemption/Statutory Exemption | <input type="checkbox"/> Categorical Exclusion (<input type="checkbox"/> 6004/ <input type="checkbox"/> 6005) |
| <input checked="" type="checkbox"/> Negative Declaration/Mitigated ND(<input type="checkbox"/> Appendix G) | <input checked="" type="checkbox"/> Finding of No Significant Impact |
| <input type="checkbox"/> Environmental Impact Report | <input type="checkbox"/> Environmental Impact Statement |

Anticipated Environmental Schedule

Total Time for Environmental Approval	33 Months
Start Date	January 11, 2013
Begin Environmental	February 01, 2013
Draft Environmental Document	July 01, 2015
Final Environmental Document	September 01, 2015
PA&ED*	October 15, 2015

**PA&ED is generally 1 month following the FED date*

Assumptions and Risks

Assumptions:

- No new culverts
- Mitigation for wetlands will be available
- No cultural resources would be impacted
- No culturally sensitive resources will be taken
- Receive a Biological Opinion from USFWS prior to September 2015
- No 2081 Permit required
- Alternative 1 will not impact the 100-year Floodplain
- Alternative 1 will not impact wetlands

Risks:

- If new culverts are required there would be a corresponding impact on the schedule and cost. Probability of occurrence is a 2 and impact on schedule and cost would be moderate.
- If mitigation for wetlands is not available there would be a corresponding impact on schedule and cost. Probability of occurrence is a 4 and impact on schedule would be high and impact on cost is low.
- If it is determined that cultural resources will be affected by this project then Phase III mitigation may be required and there would be a corresponding impact on schedule and cost. Probability of occurrence is a 2 and impact on schedule is high and impact on cost would be low.
- If it is determined that a culturally sensitive resource will be taken due to project construction an ethnographic sensitivity study may be required and there would be a corresponding impact on schedule and cost. Probability of occurrence is a 2 and impact on schedule would be high and impact on cost would be low.
- If a Biological Assessment is not submitted by January 2015 or changes are made to design after submittal of the Biological Assessment to the United States Fish and Wildlife Service a corresponding delay may occur leading to an impact on schedule. Probability of occurrence is a 2 and impact on schedule would be high.
- If a 2081 Permit is required there would be a corresponding delay that may occur leading to an impact on schedule and cost. Probability of occurrence is a 2 and impact on schedule is moderate and impact on cost is very low.
- If Alternative 1 encroaches the 100-year floodplain then a floodplain evaluation report would be required and there would be a corresponding impact on cost. Probability of occurrence is a 3 and impact on cost would be very low.
- If Alternative 1 impacts wetlands a Nationwide 404 Permit would be required and there would be a corresponding impact to schedule and cost. Probability of occurrence is a 4 and impact on schedule would be moderate and impact on cost would be very low.

Risk Probability Ranking	
Ranking	Probability of Risk Event
5	60-99%
4	40-59%
3	20-39%
2	10-19%
1	1-9%

Evaluating Impact of a Threat on Project Objectives						
Impact		Very Low	Low	Moderate	High	Very High
Objectives	Time	Insignificant Schedule Slippage	Delivery Plan Milestone Delay within quarter	Delivery Plan milestone delay of one quarter	Delivery Plan milestone delay of more than 1 quarter	Delivery Plan milestone delay outside fiscal year
	Cost	Insignificant Cost Increase	<5% Cost Increase	5-10% Cost Increase	10-20% Cost Increase	>20% Cost Increase
	Scope	Scope decrease is barely noticeable	Changes in project limits or features with <5% Cost Increase	Changes in project limits or features with 5-10% Cost Increase	Sponsor does not agree that Scope meets the purpose and need	Scope does not meet purpose and need

Mitigation

Known mitigation costs, which were determined during the creation of this document, are listed in the respective categories below. Further studies may reveal the need for additional mitigation, which would be added to the cost of the project and included in an updated Mitigation Cost Compliance Estimate Form.

Right of Way Capital (050)

- Biological Habitat Purchase : \$100,000
- Permits 1600, 404 and 401: \$3,244.25
- California Department of Fish and Game Document Review Fee: \$2,044

Construction Capital (042)

- Willow tree replacement 3:1 ratio : \$95,000

Disclaimer

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

Review and Approval

I confirm that environmental cost, scope, and schedule have been satisfactorily completed and that the PEAR meets all Caltrans requirements. Also, if the project is scoped as a routine EA, complex EA, or EIS, I verify that the IIQ DEA Coordinator has concurred in the Class of Action.

Approved by:



Environmental Manager

Date: 8/16/11



Environmental Office Chief

Date: 8/17/11



Project Manager

Date: 8/16/11

Environmental Technical Reports or Studies Required

Required – requires analysis including field surveys, database searches, report, or memo to file and brief explanation in the environmental document.

Not Required – Issue is not applicable to the proposed project.

Possible Critical Path – Major issue that has the potential to drive the schedule and determine the length of time to reach PA&ED (can be more than one major issue).

	Required	Clearance Memo Received	Not Required	Possible Critical Path
Biology		<input type="checkbox"/>		<input checked="" type="checkbox"/>
Endangered Species (Federal)	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Endangered Species (State)	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Species of Concern (CNPS, USFS, BLM, S, F)	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Wetland Delineation	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Natural Environment Study	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Biological Assessment (USFWS, NMFS, State)	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Add others as necessary	<input type="checkbox"/>		<input type="checkbox"/>	
Cultural Resources				<input type="checkbox"/>
ASR	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
HRER	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
HPSR/HRCR	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Screening Memo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SHPO Concurrence	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Native American Coordination	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Finding of Effect Document	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Treatment Plan & MOA	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Add others as necessary	<input type="checkbox"/>		<input type="checkbox"/>	
Hazardous Waste		<input type="checkbox"/>		<input type="checkbox"/>
ISA	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
PSI	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
ADL	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Add others as necessary	<input type="checkbox"/>		<input type="checkbox"/>	
Air Quality Analysis		<input type="checkbox"/>		<input type="checkbox"/>
Hot Spot Analysis	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
MSAT	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Noise Study	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Water Quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Community Impact Assessment				<input type="checkbox"/>
Environmental Justice	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Growth Related Impacts	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Cumulative Impacts	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Farmland	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Visual Resources		<input type="checkbox"/>		<input type="checkbox"/>
Scenic Resource Evaluation	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Visual Impact Assessment	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Floodplain Evaluation	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Paleontology	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Section 4(f) Evaluation	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wild and Scenic River Consistency	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Greenhouse Emissions	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Add others as necessary	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

Permits Anticipated for Construction

	<u>Required</u>	<u>Not Required</u>
401 Permit Coordination (discharge into navigable waters)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
404 Permit Coordination (discharge into waters of the US including Wetlands)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> - Nationwide		
<input checked="" type="checkbox"/> - Individual		
1600 Permit (Streambed Alteration)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
City/County Coastal Permit Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>
State Coastal Permit Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NPDES Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>
US Coast Guard (Section 10)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
State 2081 Permit (State only incidental take of threatened or endangered species)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Technical Review

Biology – biology is likely a critical path item for this project due to Special Status Species with potential to occur within or adjacent to the project area. Preparation of a Natural Environment Study and a Biological Assessment would be prepared. Consultation with the US Fish and Wildlife Service and with the California Department of Fish and Game will be required. Permits will be required if impacts to Virginia Creek cannot be avoided. Mitigation may be required for impacts to wetlands, willow trees and special status species. Alternative 2 impacts to wetlands would trigger an Individual 404 Permit.

Cultural Resources – there are currently several cultural resources located within the project APE, including architectural resources and it is assumed several more resources will likely be identified during the Phase I survey. All resources will require evaluation and SHPO concurrence. The end result will likely be Finding of No Adverse Effect with Standard Conditions (ESA Action Plan). The project requires Native American consultation and the preparation of Archaeological Survey Report, Historic Resource Evaluation Report, Historic Property Survey Report, Prehistoric/Historic Phase II Studies.

Hazardous Waste – non Standard Special Provisions will be included to account for handling of pavement striping

Air Quality Analysis – this project type does not require an Air Quality Analysis

Noise Study – this project type does not require a Noise Study

Water Quality – A temporary reduction in water quality is expected during the construction of the new alignment and box culvert installation in the stream channel. The impacts will be temporary and will not be significant. Caltrans and the contractor for the project will comply with all requirements of the necessary permits required by the permitting agencies to minimize any impact. All appropriate best management practices as outlined in the State Storm Water Permit will be used.

Community Impact Assessment – project type does not require an Community Impact Analysis

Cumulative Impacts – project type does not require a Cumulative Impact Analysis

Farmland – project does not have the potential to impact Farmland

Visual Resources – there would be a Visual Impact Analysis prepared for this project, this is a state designated scenic highway

Floodplain Evaluation – A floodplain evaluation report would need to be prepared to analyze the effects of the alterations to the 100-year floodplain. Alternative 1 realignment would stay out of the floodplain Alternative 2 realignment would encroach in the 100-year floodplain. .

Paleontology – Based on specialist memo dated 1/18/2011, the sensitivity for paleontological resources is low and likely will not be encountered in this project due to extant previously disturbed soils and undifferentiated volcanic rocks.

Section 4(f) Evaluation - no 4(f) resources are in or adjacent to the project area

Wild and Scenic River Consistency – there are no Wild or Scenic Rivers in or adjacent to the project area

Greenhouse Emissions – a GHG summary will be included in the Environmental document

Permits

- 1600 Permit and 401 Permit are required because of work in Virginia Creek
- Individual 404 Permit is required if Alternative 2 is selected because of impacts to wetlands

List of Preparers

Cultural Resources Scoping by Angela Calloway	2/23/2011
Biological Scoping by Dena Gonzalez	2/14/2011
Air, Water, Noise, Hazardous Waste by Dan Holland	06/28/2011
Visual Resources by R Steve Miller	05/25/2011
Paleontology Scoping by Ken Doran	01/18/2011
Preliminary Environmental Analysis Report by Javier Almaguer	05/25/2011

ATTACHMENT E
Right of Way Data Sheets

Right of Way Data Sheet Report

To: Thomas A. Meyers
Project Manager - Bishop

Date: July 21, 2011
File Ref.: Mono 395 PM 69.9/75.9
EA: 09-34120k
Project No. 09-0000-0129-k
Alt No.: 1 -variation, Revision 3

Attention: Brian Wesling, Design Manager
Carne Lowgren, Project Engineer

From: **DEPARTMENT OF TRANSPORTATION, Division of Right of Way, Central Region - Bishop**

We have completed an estimate of the right of way costs for the above-referenced project based on the Right of Way Data Sheet Request Form dated: July 12, 2011 - "Green Lake Rehab" – 3R Pavement Rehabilitation Project on US 395 from SR270 (Bodie Road) to Jack Sawyer Road at the south end of Bridgeport. Rehab pavement and widen shoulders and so on as outlined under mapping dated 6/6/2011 for Alternative 1 Revision 3 but this variation adds the possible work of a turn lane for Jack Sawyer Road. The following assumptions and limiting conditions were identified:

1. Contractor needs to be aware that USA Alert has to be contacted prior to any digging. This information should go in the specials.
2. The June 2011 Bishop "Status of Projects", page 3, lists the project as being in the PID Stages. Anticipated Construction/Award Date is in the 2014 year.
3. The Project Engineer indicates that **new** right of way is required for this project due to the possible addition of work that would allow for a turn lane or turn pockets to be added for Jack Sawyer Road, plus that utility involvement or relocation is required, and that the PEAR outlines environmental mitigation needs.
4. This variation to the June 28th data sheet includes a rough estimate of costs (land and utilities) for possible work to be added at a later date (turn lane for Jack Sawyer Road).
5. The Environmental Branch has provided a "draft" PEAR document dated 1/28/09 and 5/26/11 that outlines mitigation needs on page 5 of 9, permit fees included.
6. Utility involvement will require long lead time for any relocations or coordination with the involved companies.
7. Right of Way activities (ordering title reports, preparing base maps, preparing appraisal maps, etc) can commence upon receipt of completed Certificate of Sufficiency. Anticipated Lead Times for this project will be –
 - ◆ Preparation of R/W Maps to Regular R/W activities (order title reports, prepare appraisal maps) 8 Months
 - ◆ Regular R/W activities (acquiring parcels or permits, performing RAP, utility relocation activities) to Right of Way Certification. 18 Months

NOTE: The last chance to submit map/project changes to Right of Way, without jeopardizing r/w certification date, is 3 months after start of regular right of way work.

ANTICIPATED Right of Way LEAD - TIME will require a minimum of 18 months after we receive certified Appraisal Maps, the necessary environmental clearances have been obtained, and freeway agreements have been approved.


NANCY ESCALLIER
Field Office Chief
Right of Way, Central Region - Bishop
(760) 872-0641; Fax (760) 872-0755

RIGHT OF WAY DATA SHEET

REQUEST DATE: July 12, 2011

From: FRE STK SLO BIS

District: 09 County: Mono Route: 395
 PM 69.9/75.9 EA: 09-34120k
 Project No. 09-0000-0129 Alt No.: 1 variation, Rev 3

1. **RIGHT OF WAY COST ESTIMATE:**
 (entered into PMCS COST RW1-5 Screens)

	Current Value (Year 2011)	Escalation Rate	Escalated Value (Year 2014)
Acquisition: (parcels + Grantor Appraisal fees + any fencing costs)	\$ 284,968.00	5%	\$ 329,886.00
Project permit fees per PEAR dated 1/28/09 & 5/26/11	\$ 5,288.25	NA	\$ 5,288.25
Mitigation Costs per PEAR dated 1/28/09 & 5/26/11	\$ 100,000.00	NA	\$ 100,000.00
Utility Relocation (States share, with 15% contingency added)	\$ 640,090.00	10%	\$ 8 51,959.00
Relocation Assistance			
Clearance/Demolition			
Title and Escrow Fees	\$ 11,000.00		\$ 11,000.00
TOTAL CURRENT VALUE	\$1,041,346.25		\$1,298,133.25
R/W SUPPORT COSTS			
Construction Contract Work (construction costs to be included in projects PS&E)			

2. Current anticipated date of RIGHT OF WAY CERTIFICATION: ___2014_____

3. **PARCEL DATA:**
 (entered on PMCS EVNT RW screen)

TYPE	NUMBER	DUAL/APPR	UTILITIES	RR INVOLVEMENT
X			U4-1	None X
A	9 (6 TCE's + 3 Easements)		-2	C & M Agmt
B	11 (parcels in Fee)		-3	Service Contract
C			-4	Lic/RE/Clauses
D				MISC R/W WORK
TOTAL:	20		U5-7 3	RAP Displacement No
			5-8	Clear/Demo No
			5-9	Const Permits 6 TCE's
EXCESS:	0			Cond

Parcel Area: **Right of Way-** 9.34 + acres; Private and Livestock Company ownerships
Excess- 0.0 acres ; **Mitigation-** acreage not supplied in PEAR.

4. Items of construction contract work: YES NO (any fencing costs have been included in the overall acquisition costs.)

- 5. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.): Irrigated pasture lands, residential/business properties along-side Hwy 395 .
YES - RIGHT OF WAY REQUIRED NO - NONE REQUIRED
- 6. Effect on assessed valuation: YES NOT SIGNIFICANT NO
- 7. Utility facilities or rights of way affected: YES Utility Worksheet (exhibit 13-ex-6) attached.
- 8. Railroad facilities or rights of way affected: No
- 9. Previously unidentified sites with hazardous waste and/or material found: NONE EVIDENT
- 10. RAP displacements required: NO
- 11. Material borrow and/or disposal sites required: YES NO
- 12. Potential relinquishments and/or vacations: YES NO
- 13. Existing and/or potential Airspace sites: YES NO
- 14. Environmental mitigation required: YES See page 5 of 9 on the "draft" PEAR document that is dated 1/28/09 and 5/26/2011.
- 15. All Right of Way work will be performed by Caltrans staff: YES NO
- 16. Data for evaluation provided by:

Estimator: Lora Rischer Date: 7/21/11
Lora Rischer

I have personally reviewed this Right of Way Data Sheet and all supporting information. I find this Data Sheet complete and current, subject to the limiting conditions set forth.

7/21/11
Date

Nancy Escallier
NANCY ESCALLIER
Field Office Chief
Right of Way, Central Region - Bishop

Entered onto PMCS Screens (Event, Cost, Agre.) By: _____ Date: _____

RIGHT OF WAY UTILITY ESTIMATE WORKSHEET

EXHIBIT
13-EX-6 (Rev. 8/95)

Date: July 21, 2011

County: Mono Route: 395
PM: 69.9/75.9

EA: 09-34120k

Project No. 09-0000-0129

UTILITIES	
U4-1	
-2	
-3	
-4	
U5-7	3
-8	
-9	

Description of Project: Green Lakes Rehab – in Mono County near Bridgeport from SR270 to 0.9 miles south of Jack Sawyer Road. "Pavement Rehab".

Estimate for: Preliminary Route Estimate R/W Data Sheet
 PID Stages, variation to Alt 1, Revision 3

Evidence of Utilities:

Gas Electric Telephone Cable TV Water
 Sewer Fiber Optics Other (explain in remarks)

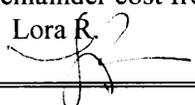
Anticipated Utility Relocations:

Gas Electric Telephone Cable TV Water
 Sewer Fiber Optics Other (explain in remarks)

Estimated Cost of Utility Relocations:

				Relocate Costs	+ 15% contingency
_____	Fiber Optic Line	@ \$	_____ /ft	= \$	_____
_____	m of UG Telephone Line	@ \$	_____ /m	= \$	_____
_____	Telephone Line	@ \$	_____ /ft	= \$	_____
10+	Wood Poles (Telephone)	@ \$	24,000 /Pole	= \$	240,000
13+	Wood Poles (Electric)	@ \$	12,000 /Pole	= \$	156,000
_____	Steel Poles H-Poles	@ \$	_____ /Pole	= \$	_____
_____	Steel Towers	@ \$	_____ /Twr.	= \$	_____
_____	Water Line	@ \$	_____ /m	= \$	_____
_____	Fire Hydrants	@ \$	_____ /F.H.	= \$	_____
_____	Sewer Line	@ \$	_____ /m	= \$	_____
1,006	LF of Fiber Optics Line	@ \$	100 /Lft.	= \$	100,600
x	Other: additional costs due to possible turn lane addition	@ \$	60,000 /	= \$	69,000

TOTAL ESTIMATE (State's Share) = \$ 640,090.00

Remarks: (Known utility owner names, etc.): Prepared with other costs being estimated by Nancy Escallier, the remainder cost from the 6/24/11 utility worksheet Julie Dogris provided for the data sheet dated 6/28/11. Lora R. 

Right of Way Data Sheet Report

To: Thomas A. Meyers
Project Manager - Bishop

Date: April 13, 2011
File Ref.: Mono 395 PM 69.9/75.9
EA: 09-34120k - UPDATED
Project No. 09-0000-0129-k
Alt No.: 2

Attention: Brian Wesling, Design Manager
Tom Waters, Project Engineer

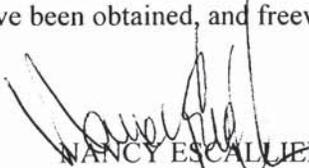
From: **DEPARTMENT OF TRANSPORTATION, Division of Right of Way, Central Region - Bishop**

We have completed an estimate of the right of way costs for the above-referenced project based on the Right of Way Data Sheet Request Form dated: December 24, 2010 - "Green Lake Rehab" - 3R rehab pavement and widening shoulders to full standard to meet all design aspects for a 3R project with no or few design exceptions. Project goes from Bodie Road/Route 270 past Green Creek Road to Tom Sawyer Road, at the south end of Bridgeport. Updated on 4/13/2011 to reflect information as provided by MCCC Form dated 4/11/2011. The following assumptions and limiting conditions were identified:

1. Contractor needs to be aware that USA Alert has to be contacted prior to any digging. This information should go in the specials.
2. The March 2011 Bishop "Status of Projects", page 2, lists the project as being in PID Stage. Target date for Draft PID & Cost Estimate is 6/1/2011. Anticipated Construction/Award Date is in the 2014 year.
3. The Project Engineer indicates that **new** right of way is required for this project and that utility involvement or relocation is required, also notes that enviro. mitigation parcels will be required.
4. The Environmental Branch has provided a MCCE form that outlines mitigation parcels requested and costs, plus permit fees.
5. RAP and demolition/clearance costs are required on this alternative.
6. Right of Way activities (ordering title reports, preparing base maps, preparing appraisal maps, etc) can commence upon receipt of completed Certificate of Sufficiency. Anticipated Lead Times for this project will be -
 - ◆ Preparation of R/W Maps to Regular R/W activities (base map prep, order title reports, appraisal map prep, comparable sales search) 8 Months
 - ◆ Regular R/W activities (acquiring parcels or permits, performing RAP, utility relocation activities) to Right of Way Certification. 24 Months

NOTE: The last chance to submit map/project changes to Right of Way, without jeopardizing r/w certification date, is 3 months after start of regular right of way work.

ANTICIPATED Right of Way LEAD - TIME will require a minimum of 24 months after we receive certified Appraisal Maps, the necessary environmental clearances have been obtained, and freeway agreements have been approved.


NANCY ESCALLIER
Field Office Chief
Right of Way, Central Region - Bishop
(760) 872-0641; Fax (760) 872-0755

RIGHT OF WAY DATA SHEET

REQUEST DATE: December 24, 2010

From: FRE STK SLO BIS

District: 09 County: Mono Route: 395
 PM 69.9/75.9 EA: 09-34120k -Updated
 Project No. 09-0000-0129 Alt No.: 2

1. **RIGHT OF WAY COST ESTIMATE:**
 (entered into PMCS COST RW1-5 Screens)

	Current Value (Year 2011)	Escalation Rate	Escalated Value (Year 2014)
Acquisition: (parcels + Grantor Appraisal fees + any fencing costs)	\$ 1,075,849.00	5%	\$ 1,236,762.00
Project permit fees per MCCC form dated 4/11/11	\$ 3,244.25		\$ 3,244.25
Mitigation Acquisition (per 4/11/2011 MCCE)	\$ 100,000.00	5%	\$ 115,763.00
Utility Relocation (States share)	\$2,875,000.00	10%	\$3,826,625.00
Relocation Assistance	\$ 196,140.00	5%	\$ 227,058.00
Clearance/Demolition	\$ 62,790.00	5%	\$ 72,689.00
Title and Escrow Fees	\$ 22,000.00		\$ 22,000.00
TOTAL CURRENT VALUE	\$4,335,244.25		\$5,504,000.00 (r)
R/W SUPPORT COSTS			
Construction Contract Work (construction costs to be included in projects PS&E)			

2. Current anticipated date of RIGHT OF WAY CERTIFICATION: ___2014___

3. **PARCEL DATA:**
 (entered on PMCS EVNT RW screen)

TYPE	NUMBER	DUAL/APPR	UTILITIES	RR INVOLVEMENT
X			U4-1	None X
A	2 TCE's		-2	C & M Agmt
B	26 + 1 mitigation		-3	Service Contract
C			-4	Lic/RE/Clauses
D				MISC R/W WORK
TOTAL:	29		U5-7 3	RAP Displacement Yes; 2 Residences & 2 businesses
			5-8	Clear/Demo Yes
			5-9	Const Permits
EXCESS:	0			Cond

Parcel Area: **Right of Way** 53.32 acres; Private, BLM, Utility-SCE and Livestock Company ownerships
Excess 0.0 acres ; **Mitigation** 0.70 acres; or 1 Type B parcel, as noted above.

4. Items of construction contract work: YES NO (any fencing costs have been included in the overall acquisition costs.)

5. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.): Irrigated pasture lands, residential/business properties, BLM and SCE ownerships along-side Hwy 395 .

YES - RIGHT OF WAY REQUIRED NO - NONE REQUIRED

6. Effect on assessed valuation: YES NOT SIGNIFICANT NO

7. Utility facilities or rights of way affected: YES Utility Worksheet (exhibit 13-ex-6) attached.

8. Railroad facilities or rights of way affected: No

9. Previously unidentified sites with hazardous waste and/or material found: NONE EVIDENT

10. RAP displacements required: YES 2 Single Family residences and 2 businesses affected. Note: a Demo/Clearance contract will be needed for these buildings.

11. Material borrow and/or disposal sites required: YES NO

12. Potential relinquishments and/or vacations: YES NO

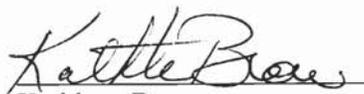
13. Existing and/or potential Airspace sites: YES NO

14. Environmental mitigation parcels required: YES MCCE form dated 4/11/2011 explains that 0.70 acres are requested for biological mitigation, and also lists fees for several permits that are needed.

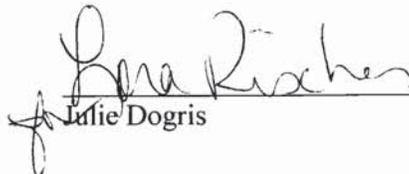
15. All Right of Way work will be performed by Caltrans staff: YES NO

16. Data for evaluation provided by:

Estimator:


Kathlene Brown Date: 4/13/11

Utility Relocation Coordinator:


Julie Dogris Date: 4/13/11

I have personally reviewed this Right of Way Data Sheet and all supporting information. I find this Data Sheet complete and current, subject to the limiting conditions set forth.

4/15/11
Date


NANCY ESCALLIER
Field Office Chief
Right of Way, Central Region - Bishop

Central Region Environmental Division Mitigation Cost Compliance Estimate Form (MCCE)

This MCCE is for: **PEAR**

Dist - Co - Rte - PM: <u>09-MNO-395-69.8 / 75.0</u>	EA: <u>09-34120_</u>
Project Name: <u>GREEN LAKES REHAB</u>	Alternative #: <u>02</u>
Project Description: <u>PAVEMENT REHAB</u>	(If applicable)
Environmental Senior: <u>John Thomas</u>	Phone Number: <u>559-243-8167</u>
Design Manager: <u>Brian Wesling</u>	Phone Number: <u>(760) 872-0630</u>
Design Engineer: _____	Phone Number: _____
Project Manager: <u>Tom Meyers</u>	Phone Number: <u>(760) 872-5214</u>
Date: _____	
MCCE Prepared By: <u>Javier Almaguer</u>	Phone Number: <u>559-243-8255</u>

	Right of Way Capital (Prior to Construction 050-\$'s)	Construction Capital (During & Post Construction 042-\$'s)
Archaeological		\$0
Architectural History		\$0
Paleontology		\$0
Hazardous Waste		\$0
Air Emissions		\$0
Biological		
Mitigation parcels (acre/dollars)	0.70 / \$100,000	
Mitigation/Bank Credits (acre/dollars)	0.00 / \$0	
Monitoring		\$0
Permit Fees		
401 Permit Fee	\$640	
404 Permit Fee	\$0	
1600 Permit Fee	\$560.25	
Coastal Development Permit Fee	\$0	
DFG Fee	\$2,044	
Willow Tree Replacement 3:1 ratio	\$0	\$95,000
	\$0	\$0
	\$0	\$0
	\$0	\$0
	\$0	\$0
TOTAL	\$103,244.25	\$95,000

Approved By: _____ Date: _____
 Environmental Branch Chief

This form is completed as part of the PEAR for all candidate projects, at completion of the Draft Environmental Document, at completion of the Final Environmental Document, and during preparation of the PS&E. This form is to be completed for all SHOPP, STIP, and Minor A & B projects (even those without mitigation). Include all costs necessary to complete the commitment including: capital outlay (non-staffing support costs); cost of right-of-way or easements; long-term monitoring and reporting by consultants during the construction phase; and any follow-up maintenance post construction. Timing of Enhancement/Endowment funds will depend on which agency is requiring the mitigation. Funds may need to be available as 050 or as 042.

Right of Way Estimate
 09-MNO-395-PM 69.9-75.9
 09-34120K/ 09*129
 Alt. 2

February 24, 2011

	Current Cost 2011	Escalated yr To 2014
Acquisition:	\$887,694.00	
Contingency (15%)	133,155.00	
Sub Total -Acquisition Cost	\$1,020,849.00	\$ 1,118,762.00
Grantors Appraisal Fees (not escalated)	55,000.00	\$ 55,000.00
Total Acq: Including Grantor Fees	1,075,849.00	\$ 1,236,762.00
 Mitigation, Biology: None identified	 \$ 0.00	
Contingency (15%)	\$0.00	
Total Mitigation Bio. Cost	\$ 0.00	\$ 0.00
 Mitigation, Archaeology: None identified	 \$ 0.00	
Contingency (15%)	\$ 0.00	
Total Mitigation Arch. Cost	\$ 0.00	\$ 0.00
 Utility Relocation:	 \$2,500,000.00	
Contingency (15%)	375,000.00	
Total Utility Cost	\$2,875,000.00	\$3,826,625.00
 RAP:	 \$ 186,800.00	
Contingency (15%)	\$ 9,340.00	
Total RAP Cost	\$196,140.00	\$227,058.00
 Clearance/Demolition:	 \$ 54,600.00	
Contingency (15%)	\$ 8,190.00	
Total Clearance/Demo Cost	\$62,790.00	\$72,689.00
 Title and Escrow Fees:	 \$ 22,000.00	 \$ 22,000.00
 TOTAL COST:	 \$4,231,779.00	 \$5,385,134.00
	R \$4,232,000.00	R \$5,385,000.00

DIARY
MAPPING

Note: Utility escalation is 10%, all other are 5%.
 CCW fence work included in acquisition totals.
 This estimate was prepared by:
 Calculations & Content verified by:

Kathlene Brown

Nancy Escallier

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
R/W UTILITY ESTIMATE WORKSHEET AND
R/W DATA SHEET INSTRUCTIONS
 (Form #)

EXHIBIT
 13-EX-6 (REV 4/2009)

Date 1-25-11
 Post Mile 69.8/75.0
 Expenditure Authorization 09-34120

Description of Project:
Pavement Rehabilitation

Estimate for: Preliminary Route Estimate (Alternate No. 1 & 2)
 R/W Data Sheet (Preferred Alternate)

Evidence of Utilities:

Gas Electric Telephone Cable TV Water Public Drainage/Irrigation
 Sewer Fiber Optics Other (Explain in "Remarks")

Anticipated Utility Relocations:

Gas Electric Telephone Cable TV Water Public Drainage/Irrigation
 Sewer Fiber Optics Other (Explain in "Remarks")

Estimated Cost of Utility Relocations:

_____	L.F. of Gas Line	@ \$ _____ /L.F.	= \$ _____
_____	L.F. of UG Electric Line	@ \$ _____ /L.F.	= \$ _____
_____	L.F. of UG Telephone Line	@ \$ _____ /L.F.	= \$ _____
_____	Wood Poles (Telephone)	@ \$ _____ /Pole	= \$ _____
<u>Alt 1 @ 61</u>	Wood Poles (Electric)	@ \$ <u>24,000</u> /Pole	= \$ <u>1,464,000</u>
<u>Alt 2 @ 101</u>	Wood Poles (Electric)	@ \$ <u>24,000</u> /Pole	= \$ <u>2,424,000</u>
_____	Joint Poles	@ \$ _____ /Pole	= \$ _____
_____	Steel Poles	@ \$ _____ /Pole	= \$ _____
_____	Steel Towers	@ \$ _____ /Tower	= \$ _____
_____	L.F. of Water Line	@ \$ _____ /L.F.	= \$ _____
_____	Fire Hydrants	@ \$ _____ /F.H.	= \$ _____
_____	L.F. of Sewer Line	@ \$ _____ /L.F.	= \$ _____
<u>1000</u>	L.F. of Fiber Optics Line	@ \$ <u>100</u> /L.F.	= \$ <u>100,000</u>
_____	Other (Explain)	@ \$ _____ /	= \$ _____

TOTAL ESTIMATE (Alt 1) = \$ 1,500,000.00
 TOTAL ESTIMATE (Alt 2) = \$ 2,500,000.00

Remarks:

Poles also have cable, highest amount for relocation of poles with electric used in estimate.
Uncertain if fiber optic needs to be relocated, but in Alt 2 there may be two locations unless design can be modified.

ATTACHMENT F

Preliminary Geotechnical Design Report

Memorandum

*Flex your power!
Be energy efficient!*

To: MR. BALJINDER BRAR
CR PJD – Design 1 – Branch K

Date: May 20, 2009

File: 09-Mno-395
PM ~~69.6/76.0~~ 69.85/76.0
EA: 09-34120K

From: DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
GEOTECHNICAL SERVICES – MS 5

Subject: Preliminary Geotechnical Design Report

Introduction

As requested, the Office of Geotechnical Design North (OGDN) is providing a preliminary geotechnical design report (PGDR) for the proposed Green Lakes Rehabilitation project for Highway 395, postmiles 69.6 to 76.1, in Mono County. It has been indicated that there is a higher than average accident rate for the Point Ranch area. We were also informed that rockfall is a recurrent problem around the Point Ranch area, although detailed locations have not been acquired. Recommendations from Traffic Operations and Safety include adding a Two Way Left Turn Lane (TWLTL) through the Virginia Creek Settlement (PM 70.1 to 71.3). They also recommended widening the roadway to accommodate full width 8-foot shoulders as well as widen the Clear Recovery Zone (CRZ) to the recommended 20-foot width. In order to widen the shoulders to the full 8-feet, it will be required to relocate the Changeable Message Sign (CMS) at PM 75.64 as well as excavate the existing cut slope.

Existing Conditions and Proposed Improvements

All postmiles refer to those stated on the CalTrans DHIPP viewer. The proposed project lies along Highway 395 in Mono County and extends from PM 69.6 to 76.1. The roadway in this area trends roughly northwest along the southerly portion of the project between PM 69.6 to 73.3. At Point Ranch (PM 73.3) the roadway trends toward the northeast. The entire length is comprised of two 12-foot lanes and one-foot to four-foot shoulders. The length of roadway was primarily constructed on a cut/fill with some through cuts as well as sections entirely on fill. According to the As-built plans, the cut slopes were graded between 1.5:1 to .25:1 (H:V) with

slope heights up to 200-feet. The fill slopes were graded at 1.5 to 3:1. The largest slopes are observed between PM 72 to 73.3. Overhead power lines lie along the east side of the roadway.

It has been recommended by Traffic Operations and Safety to add a TWLTL at the Point Ranch area, add turn lanes at Huggins Lane and the road approach at PM 75.64. They also recommended widening the shoulders to 8-feet, adding a rumble strip to the shoulders and widen the CRZ along the length to its required 20-feet. In order to widen the CRZ, a Changeable Message Sign (CRZ) at PM 74.7 would have to be relocated.

There is an existing project in development located between PM 72.8 and PM 73.5 in the Point Ranch Area (EA: 09-31960). According to project documents, the existing curve and ice formation due to cut slope orientation cause the accident rate to be four times higher than average. Alternatives for the project include a curve realignment, roadway widening as well as laying back portions of the slope, steepening up portions of the rock slope, adding a catchment area, and the addition of "slope stabilization netting".

Physical Setting

The physical setting of the project site and the surrounding area was reviewed to provide climate, topography and drainage, geology and seismicity characteristics to aid in preliminary project design and construction planning. The following is a discussion of our review:

Climate

According to the Western Regional Climate Center for the time period between 1903-2007, the average annual precipitation at Bridgeport (the closest station) is about 9.38 inches (238 mm). The majority of this precipitation (over 60 percent) falls between November and March. The average annual snowfall is about 49.6 inches (1260 mm). The average annual snow depth is 1-inch (25.4 mm) with an average of four inches (102 mm) in January. The average annual air temperature is approximately 42.7° F (5.9° C) with the highest average daily maximum of 82.9° F (28.3° C) in July and the lowest average daily minimum of 8.6° F (-13° C) in January. Freezing temperatures and light snowfall is common in the winter months.

Topography and Drainage

Based on the USGS topographic map of the Big Alkali Quadrangle, the site area lies in an area of moderate to steep topographic relief with elevations ranging from approximately 6400 feet to about 7000 feet above mean sea level in the immediate vicinity of the project site.

The Walker River trends towards the southwest, west of the northerly portion of the project site. Virginia Creek trends towards the north-west immediately west of the highway along the southerly portion of the project between PM 69.6 to about 73.3. Surficial drainage for the highway appeared to be managed by a system of side swales, drop inlets and downdrains.

Site Geology

According to the Geologic Map of California, Walker Lake sheet (CDMG, 1963), the majority of the roadway was constructed on Quaternary alluvium consisting of boulders, gravel, sand, silt and clay. A portion of the roadway near postmile 74.3 was constructed atop glacial deposits also consisting of boulders, gravel, sand, silt and clay. The extreme southerly portion of the project was constructed upon Pleistocene volcanic rocks. These rocks are also observed trending along the easterly side of the roadway between PM 69.6 and 73.4. These rocks appear to be moderately to highly fractured and slightly to moderately weathered based on CalTrans Photolog.

Seismic Considerations

The Department's California Seismic Hazard Map, 1996 (with errata), was also reviewed. The map indicates that the controlling fault for the project is the Mono Lake fault (MOL), which intersects the project location at approximate PM 71 and trends to the east along the entirety of the project length. The fault is classified as a normal type fault and is expected to be capable of producing a Maximum Credible Earthquake (MCE) of magnitude 7.0. The MCE from this source is expected to produce a peak bedrock acceleration on the order of 0.8g at the project location based on the Geometrix (1997) attenuation equation. This fault crossing the highway will be of special interest if structures are implemented into the plans.

Recommendations

PM 69.6 to 73.3

Similar to the alternatives being considered for the Point Ranch curve realignment, in order to accommodate full width 12-foot lanes, 8-foot shoulders, and a CLR of 20-feet, the roadway can either be shifted towards the west, or the cutslope to the east can be excavated. By shifting the roadway toward the west, earthwork costs may be reduced as well as providing a catchment for the rockfall. Embankment slopes comprised of fill should be graded at 2:1 (H:V) or flatter.

If excavation into the existing cutslope is desired, the new cut slopes may be graded at 1:1 based on the existing slope angles in the area. Our office should be consulted during future phases of planning on further recommendations to steepen the cut slope, design a catchment and/or provide preventative options to reduce the potential for rockfall on the oversteepened slopes. We also recommend the performance of a rippability survey to address the nature of rock excavation. All earthwork should conform to Section 18, of the 2006 Caltrans Standard Specifications.

Postmiles 73.3 to 76.1

Due to the low heights associated with the proposed cut slopes, the slopes can remain at their existing slope angle of 1:1. Our office may recommend steeper slopes provided we can analyze them for potential stability.

Further Investigations

If the existing slope is to be excavated to accommodate the roadway widening, our office should be consulted to evaluate the slope in terms of its mechanical stability in order to provide recommendations on slope angle, possible catchment, or other options to possibly steepen the cut slopes while maintaining safety. It is likely that the slopes can be steepened based on existing conditions provided a kinematic analysis is performed that indicates it is safe to do so. Even if there may be a possibility of surficial instability we can determine the locations and potential mitigation methods to reduce the potential for rockfall from entering the roadway. We should also be consulted for the CMS foundation, if it is to be relocated. We may also need to consult with Geotechnical Support in order to determine the rippability of the existing rock slopes.

Table 1 below presents the Geotechnical Services (GS) resource estimate to complete the project. It includes cost centers such as 296 (Drafting), 316 (Geotechnical Support), 322 (Drilling Services), and 323 (Geotechnical Design North). This is based on the current scope of the project. Please note that if scope changes occur, as revision to the estimated hours will be necessary.

Table 1. Resource Estimate for the proposed cut slope and rockfall assessment

	Unit	100	150	160	185	230	240	250	255	270	275	285	290	Totals
Drafting	296	0	0	0	0	0	0	0	0	0	0	0	0	0
GS	316	0	0	0	100	0	0	0	0	0	0	0	0	100
Drilling	322	0	0	0	0	0	0	0	0	0	0	0	0	0
GDN	323	40	0	40	300	0	0	0	0	20	0	8	8	416
Totals (hours)		40	0	40	400	0	0	0	0	20	0	8	8	516

Pertinent Reports and Investigations

The following presents a list of references used in preparation of this report.

- Keonig, J.B., 1963, *Geologic map of California: Walker Lake Sheet*, California Division of Mines and Geology

- *Topographic Map of the Big Alkali Quadrangle, California*, United States Geological Survey, 1980
- Sadigh, et al, 1997 attenuation equations,
http://peer.berkeley.edu/course_modules/eqrd/IntExmp/atten03.htm#calcanch
- Western Regional Climate Center for 1957-2005
- Safety Screening for 2R Status for Mono 395, EA: 09-34120K, March 9, 2009
- Traffic Operational Review, Green Lakes Rehab, CalTrans, March 10, 2009
- Plan and Profile of State Highway, in Mono County, between Conway Summit and 1 mile north of Bodie Road, Document No. 90000138, PM 69.3 to 70.8, March 9, 1936
- Plan and Profile of State Highway, in Mono County, between Bodie Road and Point Ranch, Document No. 90000136, PM 70.8 to 72.8, April 29, 1935

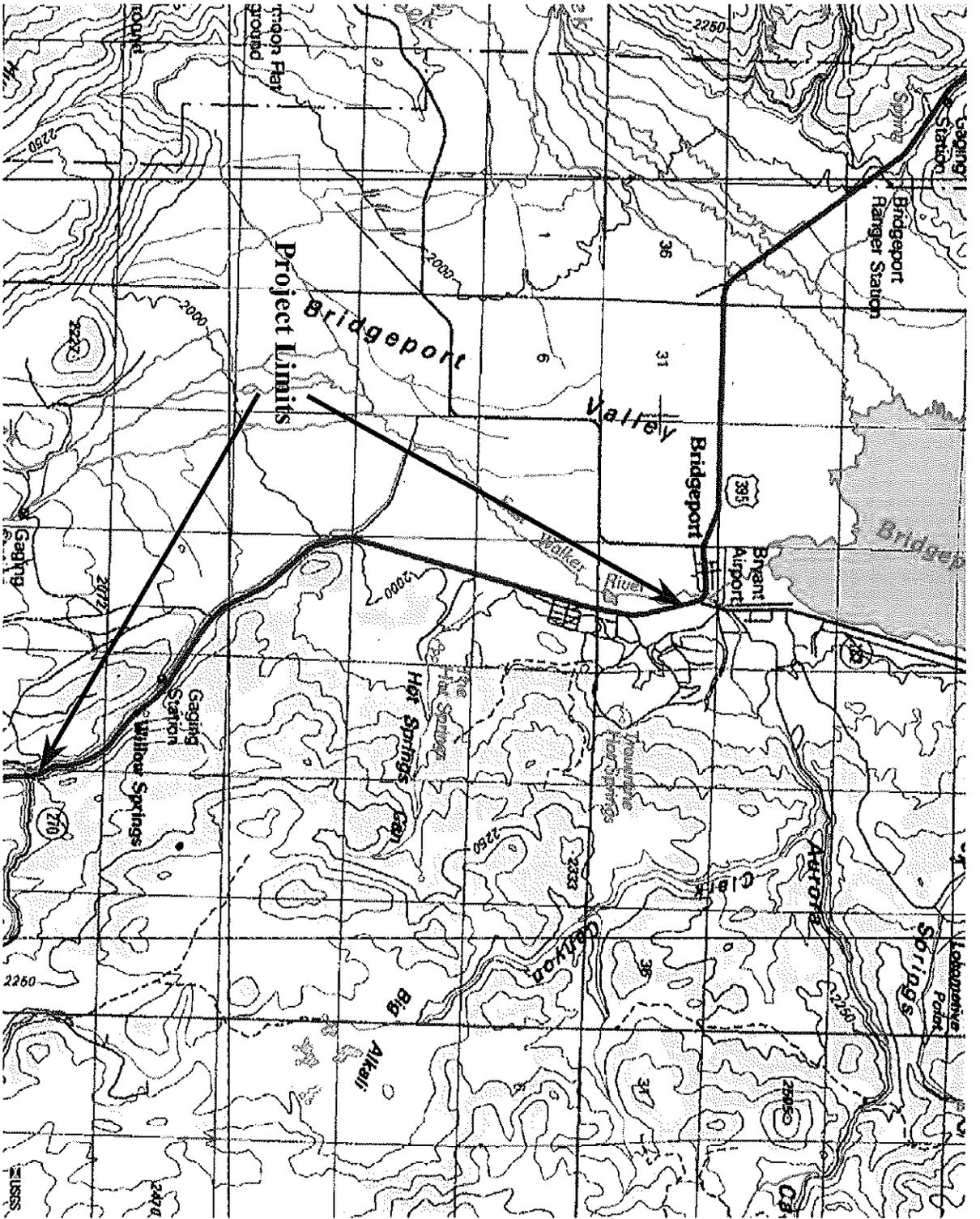
If you have any questions or comments, please call Brandon Badeker at (916) 227-1046 or John Huang at (916) 227-1037.

BRANDON BADEKER, CEG
Engineering Geologist
Geotechnical Design - North

Attachments:

- Figure 1: Vicinity Map
- Figure 2: Aerial Photograph
- Figure 3: Topographic Map
- Figure 4: Geologic Map

C: RBibbens (E-copy)
JHuang (E-copy)
TMeyers (E-copy)
GDN File



Map adapted from: Topographic Map of the Big Alkali Quadrangle, California, United States Geological Survey, 1980

CALTRANS

CH
Caltrans
 Division of Engineering Services
 Geotechnical Services
 Office of Geotechnical Design - North

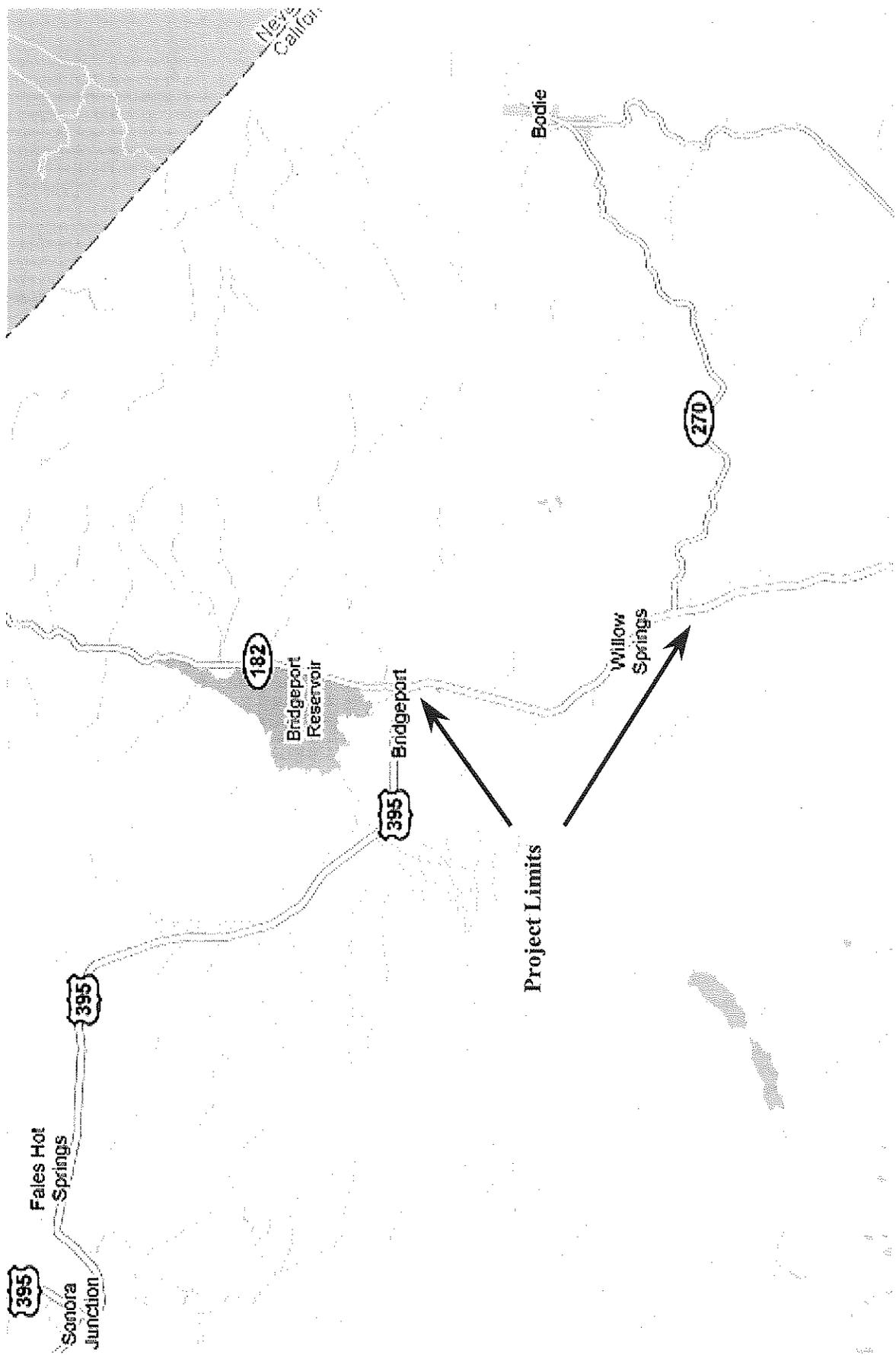
EA: 09-34120K

Date: MAY 2009

TOPOGRAPHIC MAP

09-Mno-395 PM 69.6/76.1

Figure 3



Map adapted from Google Maps, 2009

EA: 09-34120K
 Date: MAY 2009

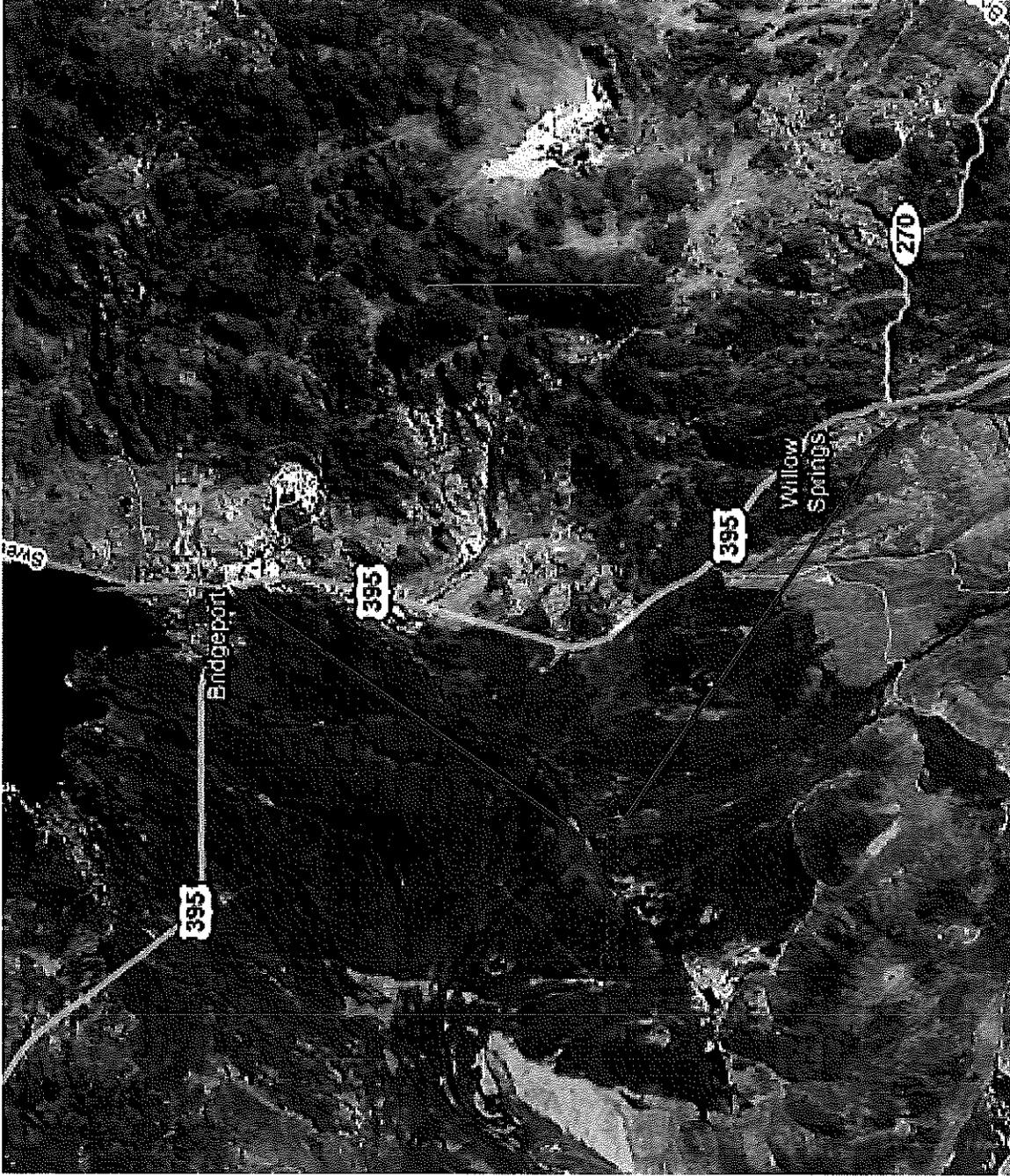
VICINITY MAP

Figure 1

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 Geotechnical Services
 Office of Geotechnical Design - North



09-Mno-395 PM 69.6/76.1



EA: 09-34120K

Date: MAY 2009

AERIAL PHOTOGRAPH

Figure 2

09-Mno-395 PM 69.6/76.1

CALTRANS



Division of Engineering Services
Geotechnical Services
Office of Geotechnical Design - North

ATTACHMENT G
Traffic Management Plan

TRAFFIC MANAGEMENT PLAN CHECKLIST

District / EA: 09-34120K
 Date Prepared: February 14, 2010
 Prepared By: Tom Waters

Co.-Rte-PM: MNO-395-PM 69.9/75.9

Description: Green Lakes Rehab

Included in Project	Under Developmt	Not required	Not Applicable	COMMENTS
---------------------	-----------------	--------------	----------------	----------

1.0 Public Information

- 1.1 Brochures and Mailers
- 1.2 Media Releases (& minority media sources)
- 1.3 Paid Advertising
- 1.4 Public Information Center
- 1.5 Public Meetings/Speakers Bureau
- 1.6 Telephone Hotline
- 1.7 Visual Information (videos, slide, shows, etc.)
- 1.8 Total Facility Closure
- 1.9 Local cable TV and News
- 1.10 Traveler Information Systems (Internet)
- 1.11 Internet

				COMMENTS
		X		
	X			By PID & RE
		X		
		X		
	X			
		X		
		X		
	X			
		X		
	X			Include at time of constr. by PIO

2.0 Motorist Information Strategies

- 2.1 Electronic Message Signs
- 2.2 Changeable Message Signs
- 2.3 Extinguishable Signs
- 2.4 Ground Mounted Signs
- 2.5 Commercial Traffic Signs
- 2.6 Highway Advisory Radio (fixed and mobile)
- 2.7 Planned Lane Closure Web Site
- 2.8 Caltrans Highway Information Network (CHIN)
- 2.9 Radar Speed Message Sign

				COMMENTS
		X		
X				
		X		
X				CAS included in constr. Plans
		X		
		X		
		X		
X				By SSP
		X		

3.0 Incident Management

- 3.1 Call Boxes
- 3.2 Construction or Maintenance Zone Enhance Enforcement Program - COZEEP or MAZEEP
- 3.3 Freeway Service Patrol
- 3.4 Traffic Surveillance Stations (loop detectors and CCTV)
- 3.5 911 Cellular Calls
- 3.6 Transportation Management Center
- 3.7 Traffic Control Officers
- 3.8 CHP Officer in TMC during construction
- 3.9 Traffic Management Teams
- 3.10 On-site Traffic Advisor
- 3.11 CHP Helicopter
- 3.12 Upgraded Equipment

				COMMENTS
		X		
		X		
		X		
		X		
			X	
		X		
X				RE & Inspectors have cell phones
		X		
		X		
			X	
		X		
		X		
		X		

Included in Project	Under Development	Not required	Not Applicable	COMMENTS
---------------------	-------------------	--------------	----------------	----------

4.0 Construction Strategies

- 4.1 Incentive/Disincentive Clauses
- 4.2 Ramp Metering
- 4.3 Lane Rental
- 4.4 Off peak/Night/Weekend Work
- 4.5 Planned Lane/Ramp Closures
- 4.6 Project Phasing
- 4.7 Temporary Traffic Screens
- 4.8 Total Facility Closure
- 4.9 Truck Traffic Restrictions
- 4.10 Variables Lanes
- 4.11 Extended Weekend Closures
- 4.12 Reduced Speed Zones
- 4.13 Coordination with adjacent construction
- 4.14 Traffic Control Improvements
- 4.15 Contingency Plans
 - 4.15.1 Material Plant on standby
 - 4.15.2 Extra Critical Equipment on site
 - 4.15.3 Material Testing Plan
 - 4.15.4 Alternate Material on site
(In case of failure or major delays)
 - 4.15.5 Emergency Detour Plan
 - 4.15.6 Emergency Notification Plan
 - 4.15.7 Weather Conditions Plan
 - 4.15.8 Emergency Funding Plan
 - 4.15.9 Delay Timing and Documentation Plan
 - 4.15.10 Late Closure Reopening Notification
(Policy & Plan)
 - 4.15.11 Traffic Inspector on site

		X		
			X	
		X		
		X		
	X			1-Way reversing control
		X		
		X		
		X		
		X		
		X		
		X		
		X		
X				Include in SSPs
		X		
	X			Include in SSPs
		X		
		X		
		X		
		X		
		X		
	X			RE to notify
		X		
		X		
		X		
		X		
			X	Const. Inspectors on-site

5.0 Demand Management

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

			X	
		X		
		X		
		X		
		X		
		X		
		X		
		X		
		X		
			X	

6.0 Alternate Route Strategies

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

			X	
			X	
	X			One-way reversing traffic
			X	
			X	

Included in Project	Under Developmt	Not required	Not Applicable	COMMENTS
---------------------	-----------------	--------------	----------------	----------

7.0 Other Strategies

- 7.1 Application of new technology
- 7.2 Innovative products
- 7.3 Improved specifications
- 7.4 Staff Training/Development
- 7.5 Upgraded Equipment

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Peer Review Committee:

This TMP has been reviewed by the following PEER Committee Members:

	Name	Tele/Fax	Representing	Signature
1-	Brian Wesling	(760) 872-0630	Design	
2-	Tim Shultz	(760) 872-5211	North Construction Area	

Approved by:



 DONNA HOLLAND
 PEER COMMITTEE CHAIR

ATTACHMENT H

**Traffic Index/Design Designation &
Traffic Data Report**

M e m o r a n d u m

*Flex your power!
Be energy efficient!*

To: TOM WATERS
Design J

Date: April 6, 2011

File: 09-34120K
MNO-395-PM 69.8/75.9
Green Lakes Rehab



From: DONNA HOLLAND
Traffic Operations

Subject: Traffic Index (TI) Calculations and Design Designation

Attached you will find the Traffic Index (TI) Calculations and Design Designation for the Green Lakes Rehab Project on Mono 395 between PM's 69.8 and 75.9. This data replaces any you have received previously. The previous report submitted to you on March 16, 2011 had the wrong construction year. This report more accurately reflects the proposed construction year of 2015. The accident analysis is the same as the March 16, 2011 report but is attached here for your convenience.

Data Year.....	2009 AADT = 3350
Construction Year AADT.....	2015 AADT = 3710
5 Year AADT.....	2020 AADT = 4030
10 Year AADT.....	2025 AADT = 4390
20 Year AADT.....	2035 AADT = 5190
5 Year TI.....	2020 TI = 8.5
10 Year TI.....	2025 TI = 9.0
20 Year TI.....	2035 TI = 10.0
Construction Year DHV.....	2015 DHV = 640
5 Year DHV.....	2020 DHV = 690
10 Year DHV.....	2025 DHV = 750
20 Year DHV.....	2035 DHV = 890
2009 Directional Split = 52.51 %	
2009 Trucks = 11.0 %	

If you have any questions, please do not hesitate to call me. I may be reached at (760) 872-0711.

TRAFFIC INDEX and DESIGN DESIGNATION CALCULATION SHEET

CO-RTE-PM MNO-395-PM 69.8/75.9
EA 09-34120K
JOB NAME Green Lakes Rehab

Requested by: Tom Waters
Unit: Design J
Date: 04/06/11

Census Year 2009
Construction Year 2015
Complete Construction Year 2015
2 Way AADT 3,350
Lane Distribution Factor 1.0 (Table 602.3B, Highway Design Manual)

	AM Peak	PM Peak
Peak Hour Percent, K	17.14	15.39
Directional Split, D	52.34	52.51
Product of K and D, KD	8.97	8.08
DHV = AADT x K /100	574	516

PERCENT TRUCKS (%) 11.0
1 WAY TRUCK VOLUME 194
GROWTH FACTOR, %/Year 1.7

-----TRAFFIC INDEX CALCULATIONS-----

Traffic Index Calculations are based on completion of construction per HDM 103.2

FIVE YEAR TRAFFIC INDEX

Vehicle Type	Trucks (%)	Present ADT One Way	Expansion Factor	Expanded ADT One Way	5 Year Constant	Lane Factor	ESALs
2 axle	32.71	64.0	1.1541	74.0	345	1	25,530
3 axle	7.26	14.0	1.1541	16.0	920	1	14,720
4 axle	3.91	8.0	1.1541	9.0	1470	1	13,230
5 axle	56.12	109.0	1.1541	126.0	3445	1	434,070
TOTALS	100	195.0		225.0			487,550

Five Year TI **8.5**

TEN YEAR TRAFFIC INDEX

Vehicle Type	Trucks (%)	Present ADT One Way	Expansion Factor	Expanded ADT One Way	10 Year Constant	Lane Factor	ESALs
2 axle	32.71	64.0	1.2037	77.0	690	1	53,130
3 axle	7.26	14.0	1.2037	17.0	1840	1	31,280
4 axle	3.91	8.0	1.2037	10.0	2940	1	29,400
5 axle	56.12	109.0	1.2037	131.0	6890	1	902,590
TOTALS	100	195.0		235.0			1,016,400

Ten Year TI **9.0**

TWENTY YEAR TRAFFIC INDEX

Vehicle Type	Trucks (%)	Present ADT One Way	Expansion Factor	Expanded ADT One Way	20 Year Constant	Lane Factor	ESALs
2 axle	32.71	64.0	1.3096	84.0	1380	1	115,920
3 axle	7.26	14.0	1.3096	18.0	3680	1	66,240
4 axle	3.91	8.0	1.3096	10.0	5880	1	58,800
5 axle	56.12	109.0	1.3096	143.0	13780	1	1,970,540
TOTALS	100	195.0		255.0			2,211,500

Twenty Yr TI **10.0**

SHOULDER TIs

Design Life	2% ESALs	TI
5 Year	9,751	5.0
10 Year	20,328	5.5
20 Year	44,230	6.0

-----DESIGN DESIGNATION-----

Design Designation is based on year of construction per HDM 103.1

Construction Year AADT.....	AADT (2015) = 3710
Five Year AADT.....	AADT (2020) = 4030
Ten Year AADT.....	AADT (2025) = 4390
Twenty Year AADT.....	AADT (2035) = 5190
Construction Year DHV.....	DHV (2015) = 640
Five Year DHV.....	DHV (2020) = 690
Ten Year DHV.....	DHV (2025) = 750
Twenty Year DHV.....	DHV (2035) = 890
D = 52.51 %	
T = 11.0 %	



TRAFFIC OPERATIONS

April 6, 2011

DATE

TRAFFIC DATA REPORT
Revision #2

Project: Green Lakes Rehab, Mono 395, PM 69.8-75.9, EA 34120K

Speed: The posted speed limit from PM 69.8-74.3 is 65 mph and at PM 74.0-, the northbound 85th percentile speed is 74 mph and the southbound is 67 mph. The northbound pace speed is 58-67 mph and the southbound is 55-64 mph. Approaching Bridgeport the posted speed reduces to 60 mph at PM 74.3 and reduces again to 55 mph at PM 74.92. At PM 75.5, the northbound 85th percentile speed is 66 mph and the southbound is 64 mph. The northbound pace speed is 54-63 mph and the southbound is 51-60 mph.

Accident Data:

3 year Table B – 01/01/2007-12/31/2009, most current data available.
Accident Rates expressed in Million Vehicle Miles (MVM).

Accident Rates (Per MVM)*		
Types	Actual Avg.	Statewide Avg.
Fatal	0.00	0.027
F + I*	0.04	0.37
Total	0.53	0.85
* Accidents per Million Vehicle Miles		
* Fatal plus Injury		

Summary: Twelve collisions were recorded during the three-year study period and there were no fatalities and one injury. Eleven of the collisions were property damage only (PDO). One of the collisions was multi-vehicle in nature and two of the collisions were struck wildlife.

See individual accident data in attached spreadsheet.

Accident Statistics:

- (6) 50% Northbound
- (11) 91.7% Single Vehicle

- Primary Collision Factor**
- (4) 33.3% Improper turn
 - (4) 33.3% Other Than Driver
 - (2) 16.7% Speeding
 - (2) 16.7% Other Violations

**Traffic Data Report
(Cont)**

Type of Collision
(8) 66.7% Hit Object
(3) 25% Other
(1) 8.3% Overturn

Environmental Conditions
(10) 83.3% Clear weather
(7) 58.3% Dark
(9) 75% Dry roadway

Compiled by: Greg Weirick – D9 Traffic Operations & Safety

ATTACHMENT I
Deflection Study Report

Memorandum

To: TOM WATERS
Design Engineer

Date: January 26, 2011

Attn:

File: 09-Mno-395-69.6/76.1
Rehabilitation
09-34120K

From: **DEPARTMENT OF TRANSPORTATION**
District 10 – Materials Branch

Subject: Flexible Pavement Deflection Study Report

In accordance with your request, we have developed pavement rehabilitation alternatives for the above referenced project. Design recommendations are based on the Deflection Study conducted on March 10, 2009 by personnel from District 06 Materials Branch. The deflection tests were done in twelve sections. To determine the existing asphalt concrete (AC) thickness and the type of base materials, one core in each test section was taken during the field testing.

A condition survey was made at the time of the deflection study to assess the severity of pavement distresses. The survey indicated that the surface of the pavement is a Rubberized Open Graded Hot Mixed Asphalt Concrete Friction Course (RHMA-OGFC). The pavement reveals various types of distress conditions. The majority of cracking consisted of intermittent transverse cracks. The project is located in a rural area with few left or right turning lanes.

The collected data was analyzed for structural adequacy, reflective crack retardation and ride quality. The 2005 Pavement Condition Survey (PCS) indicates that the pavement has a maximum ride score of 108 in/mile in terms of International Roughness Index (IRI), which is within the acceptable value of 170 in/mile.

The district reports that the 10 year Traffic Index (TI10) is 9.0 for this project.

The TI10, 80th percentile of the deflections, tolerable deflections, core data, as well as the 2002 Pavement Condition Survey (PCS) data are summarized in Table 1, and were used to develop rehabilitation strategies. For this project, crack retardation governed the rehabilitation design.

Table 1: Data used in developing rehabilitation strategies.

Direction	TI10	Location		Base Type	Avg. AC Thickness	Avg. 80 th Percentile	Tolerable Deflection	IRI
		PM/PM	Lane					
NB	9.0	69.60/71.00	1	AB	0.70 ft	0.011"	0.012"	108
SB	9.0	71.00/69.60	1	AB	0.75 ft	0.014"	0.012"	108
NB	9.0	71.00/72.00	1	AB	0.60 ft	0.012"	0.012"	108
SB	9.0	72.00/71.00	1	AB	0.60 ft	0.011"	0.012"	108

Direction	TL10	Location PM/PM	Lane	Base Type	Avg. AC Thickness	Avg. 80 th Percentile	Tolerable Deflection	IRI
NB	9.0	72.00/73.00	1	AB	0.90 ft	0.013"	0.012"	108
SB	9.0	73.00/72.00	1	AB	0.80 ft	0.013"	0.012"	108
NB	9.0	73.00/74.00	1	AB	0.90 ft	0.013"	0.012"	108
SB	9.0	74.00/73.00	1	AB	0.85 ft	0.012"	0.012"	108
NB	9.0	74.00/75.00	1	AB	0.90 ft	0.012"	0.012"	108
SB	9.0	75.00/74.00	1	AB	0.72 ft	0.011"	0.012"	108
NB	9.0	75.00/76.10	1	AB	0.80 ft	0.011"	0.012"	108
SB	9.0	76.10/75.00	1	AB	0.91 ft	0.011"	0.012"	108

Twenty-Year Rehabilitation Recommendations

Alternative 1. – Rubberized Asphalt Concrete – Gap Graded (RAC G)

Conduct a field review and locate specific areas of severe failure identified by rutting greater than 1/2" and/or loose or spalling pavement.

Dig out and repair the localized distressed areas and seal all cracks wider than 1/8"

Mill off 0.10' of the AC surface to remove the Open Graded AC.

Finally, place an overlay of 0.20' of Rubberized Hot Mix Asphalt Type G (RHMA-G)

This will raise the existing profile grade 0.10'.

Alternative 2. – Dense graded Asphalt Concrete (DGAC)

Conduct a field review and locate specific areas of severe failure identified by rutting greater than 1/2" and/or loose or spalling pavement.

Dig out and repair the localized distressed areas and seal all cracks wider than 1/8".

Mill off 0.10" of the AC surface to remove the Open Graded AC.

Finally, place a Dense Graded AC (DGAC) overlay of 0.45'.

This will raise the existing profile grade 0.35'.

Remarks

1. The recommended rehabilitation strategies should provide ten years of service at a minimum maintenance cost.

2. Water may infiltrate gap-graded pavements. Saturation of the pavement promotes stripping of the binder from aggregate. Therefore, it is important to design cold-planned pavement cross-sections containing gap-graded mix in such a way that infiltrated water may drain.
3. A preliminary investigation must be made of the existing asphalt concrete pavement before choosing recycling as the planned alternative. See Deputy Directive DD- 17 dated November 17, 1993 on Recycling Asphalt Concrete.

If you have any questions or comments, please contact me at (209) 948-7951.

Dave Whaling, P.E.
District Materials engineer

DEFLECTION SUMMARY SHEET

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

EA #	DIST.	COUNTY	ROUTE	PROJECT LIMITS	OPERATOR	DATE
34120K	9	MNO	395	69.6/76.1	WALLS	03/10/09

TEST# 1 P.M. <u>69.60 TO 71.00</u> L# <u>1 OF 1</u> DIRECT: <u>NB</u> SURFACE <u>CHIP SEAL</u> BASE <u>ATPB</u> WEATHER <u>clear</u> CONTROLS? <u>YES</u> , GUARD RAIL TEMP AIR <u>32</u> SURFACE <u>36</u>	DEFLECTION DATA <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 15%;">AC Th.</th> <th style="width: 15%;">TOTAL Th.</th> <th style="width: 15%;">MEAN</th> <th style="width: 15%;">80TH</th> </tr> <tr> <td>0.70 FT</td> <td>0.80 FT</td> <td>0.009 IN</td> <td>0.011 IN</td> </tr> <tr> <td>213 MM</td> <td>244 MM</td> <td>0.229 MM</td> <td>0.290 MM</td> </tr> </table>	AC Th.	TOTAL Th.	MEAN	80TH	0.70 FT	0.80 FT	0.009 IN	0.011 IN	213 MM	244 MM	0.229 MM	0.290 MM
AC Th.	TOTAL Th.	MEAN	80TH										
0.70 FT	0.80 FT	0.009 IN	0.011 IN										
213 MM	244 MM	0.229 MM	0.290 MM										
ALLIGATOR = NONE TRANS = NC LONG = ISOLATED D/OUT = NONE D/HOLES = NONE PUMP = NONE CORRU = NONE BLEED = NONE PATCH = NC RUTTING = NONE RAVEL = NONE													
COMMENTS : CHIP SEAL BEGINS @ PM 69.60 AND ENDS @ PM 69.93. RUBBER HOT MIX ASPHALT OPEN GRADE FRICTION COURSE-HIGH BINDER (RHMAOG-HB) OVERLAY STARTS @ PM 69.93. CORE TAKEN FROM CHIP SEAL @ PM 69.93. ATPB WAS NOT RETREVBABLE, MEASURED CORE HOLE @ 0.80'.													

TEST# 2 P.M. <u>71.00 TO 72.00</u> L# <u>1 OF 1</u> DIRECT: <u>NB</u> SURFACE <u>HMAOGFC-H</u> BASE <u>AGG. BASE</u> WEATHER <u>clear</u> CONTROLS? <u>NO</u> , TEMP AIR <u>29</u> SURFACE <u>33</u>	DEFLECTION DATA <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 15%;">AC Th.</th> <th style="width: 15%;">TOTAL Th.</th> <th style="width: 15%;">MEAN</th> <th style="width: 15%;">80TH</th> </tr> <tr> <td>0.60 FT</td> <td>0.70 FT</td> <td>0.010 IN</td> <td>0.012 IN</td> </tr> <tr> <td>183 MM</td> <td>213 MM</td> <td>0.252 MM</td> <td>0.293 MM</td> </tr> </table>	AC Th.	TOTAL Th.	MEAN	80TH	0.60 FT	0.70 FT	0.010 IN	0.012 IN	183 MM	213 MM	0.252 MM	0.293 MM
AC Th.	TOTAL Th.	MEAN	80TH										
0.60 FT	0.70 FT	0.010 IN	0.012 IN										
183 MM	213 MM	0.252 MM	0.293 MM										
ALLIGATOR = NONE TRANS = NC LONG = NONE D/OUT = NONE D/HOLES = NONE PUMP = NONE CORRU = NONE BLEED = NONE PATCH = CONTINUOUS RUTTING = NONE RAVEL = NONE													
COMMENTS : MEASURED CORE HOLE @ 0.70'. CORE WAS DELAMINATED @ 0.10' FROM TOP.													

TEST# 3 P.M. <u>72.00 TO 73.00</u> L# <u>1 OF 1</u> DIRECT: <u>NB</u> SURFACE <u>HMAOGFC-H</u> BASE <u>AGG. BASE</u> WEATHER <u>overcast</u> CONTROLS? <u>NO</u> , TEMP AIR <u>39</u> SURFACE <u>53</u>	DEFLECTION DATA <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 15%;">AC Th.</th> <th style="width: 15%;">TOTAL Th.</th> <th style="width: 15%;">MEAN</th> <th style="width: 15%;">80TH</th> </tr> <tr> <td>0.90 FT</td> <td>0.90 FT</td> <td>0.011 IN</td> <td>0.013 IN</td> </tr> <tr> <td>274 MM</td> <td>274 MM</td> <td>0.273 MM</td> <td>0.318 MM</td> </tr> </table>	AC Th.	TOTAL Th.	MEAN	80TH	0.90 FT	0.90 FT	0.011 IN	0.013 IN	274 MM	274 MM	0.273 MM	0.318 MM
AC Th.	TOTAL Th.	MEAN	80TH										
0.90 FT	0.90 FT	0.011 IN	0.013 IN										
274 MM	274 MM	0.273 MM	0.318 MM										
ALLIGATOR = NONE TRANS = NC LONG = NONE D/OUT = NONE D/HOLES = NONE PUMP = NONE CORRU = NONE BLEED = NONE PATCH = CONTINUOUS RUTTING = NONE RAVEL = NONE													
COMMENTS : CORE WAS DELAMINATED @ 0.10' FROM TOP.													

TEST# 4 P.M. <u>73.00 TO 74.00</u> L# <u>1 OF 1</u> DIRECT: <u>NB</u> SURFACE <u>HMAOGFC-H</u> BASE <u>AGG. BASE</u> WEATHER <u>overcast</u> CONTROLS? <u>NO</u> , TEMP AIR <u>52</u> SURFACE <u>73</u>	DEFLECTION DATA <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 15%;">AC Th.</th> <th style="width: 15%;">TOTAL Th.</th> <th style="width: 15%;">MEAN</th> <th style="width: 15%;">80TH</th> </tr> <tr> <td>0.90 FT</td> <td>0.90 FT</td> <td>0.011 IN</td> <td>0.013 IN</td> </tr> <tr> <td>274 MM</td> <td>274 MM</td> <td>0.272 MM</td> <td>0.334 MM</td> </tr> </table>	AC Th.	TOTAL Th.	MEAN	80TH	0.90 FT	0.90 FT	0.011 IN	0.013 IN	274 MM	274 MM	0.272 MM	0.334 MM
AC Th.	TOTAL Th.	MEAN	80TH										
0.90 FT	0.90 FT	0.011 IN	0.013 IN										
274 MM	274 MM	0.272 MM	0.334 MM										
ALLIGATOR = NONE TRANS = CONTINUOUS LONG = INTERMITTENT D/OUT = NONE D/HOLES = NONE PUMP = NONE CORRU = NONE BLEED = NONE PATCH = CONTINUOUS RUTTING = NONE RAVEL = NONE													
COMMENTS : CORE WAS DELAMINATED @ 0.08' FROM TOP.													

TEST# 5 P.M. <u>74.00 TO 75.00</u> L# <u>1 OF 1</u> DIRECT: <u>NB</u> SURFACE <u>HMAOGFC-H</u> BASE <u>AGG. BASE</u> WEATHER <u>clear</u> CONTROLS? <u>NO</u> , TEMP AIR <u>30</u> SURFACE <u>36</u>	DEFLECTION DATA <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 15%;">AC Th.</th> <th style="width: 15%;">TOTAL Th.</th> <th style="width: 15%;">MEAN</th> <th style="width: 15%;">80TH</th> </tr> <tr> <td>0.90 FT</td> <td>0.90 FT</td> <td>0.010 IN</td> <td>0.012 IN</td> </tr> <tr> <td>274 MM</td> <td>274 MM</td> <td>0.244 MM</td> <td>0.292 MM</td> </tr> </table>	AC Th.	TOTAL Th.	MEAN	80TH	0.90 FT	0.90 FT	0.010 IN	0.012 IN	274 MM	274 MM	0.244 MM	0.292 MM
AC Th.	TOTAL Th.	MEAN	80TH										
0.90 FT	0.90 FT	0.010 IN	0.012 IN										
274 MM	274 MM	0.244 MM	0.292 MM										
ALLIGATOR = NONE TRANS = CONTINUOUS LONG = INTERMITTENT D/OUT = NONE D/HOLES = NONE PUMP = NONE CORRU = NONE BLEED = NONE PATCH = CONTINUOUS RUTTING = NONE RAVEL = NONE													
COMMENTS : CORE WAS DELAMINATED @ 0.08' FROM TOP.													

DEFLECTION SUMMARY SHEET

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

EA #	DIST.	COUNTY	ROUTE	PROJECT LIMITS	OPERATOR	DATE
34120K	9	MNO	395	69.6/76.1	WALLS	03/10/09

TEST# 6	P.M.	75.00 TO 76.10	L #	1 OF 1	DIRECT: NB	DEFLECTION DATA				
SURFACE: RHMAOGFC-H	BASE AGG.	BASE	WEATHER	clear		AC Th.	TOTAL Th.	MEAN	80TH	
CONTROLS? NO			TEMP AIR	56	SURFACE	60	0.80 FT	0.80 FT	0.009 IN	0.011 IN
							244 MM	244 MM	0.238 MM	0.283 MM
ALLIGATOR = NONE		TRANS = CONTINUOUS		LONG = INTERMITTENT		D/OUT = NONE				
D/HOLES = NONE		PUMP = NONE		CORRU = NONE		BLEED = NONE				
PATCH = CONTINUOUS		RUTTING = NONE		RAVEL = NONE						
COMMENTS : RUBBER HOT MIX ASPHALT OPEN GRADE FRICTION COURSE-HIGH BINDER (RHMAOG-HB) OVERLAY ENDS @ PM 76.00. CHIP SEAL BEGINS @ PM 76.00 CORE WAS DELAMINATED @ 0.07' FROM TOP.										

TEST# 7	P.M.	76.10 TO 75.00	L #	1 OF 1	DIRECT: SB	DEFLECTION DATA				
SURFACE: CHIP SEAL	BASE AGG.	BASE	WEATHER	clear		AC Th.	TOTAL Th.	MEAN	80TH	
CONTROLS? NO			TEMP AIR	60	SURFACE	65	0.91 FT	0.91 FT	0.009 IN	0.011 IN
							277 MM	277 MM	0.234 MM	0.275 MM
ALLIGATOR = NONE		TRANS = CONTINUOUS		LONG = NC		D/OUT = NONE				
D/HOLES = NONE		PUMP = NONE		CORRU = NONE		BLEED = NONE				
PATCH = CONTINUOUS		RUTTING = NONE		RAVEL = NONE						
COMMENTS : CHIP SEAL BEGINS @ PM 76.10 AND ENDS @ PM 76.00. RUBBER HOT MIX ASPHALT OPEN GRADE FRICTION COURSE-HIGH BINDER (RHMAOG-HB) OVERLAY STARTS @ PM 76.00. CORE TAKEN FROM RHMAOG-HB PAVEMENT @ PM 75.83.										

TEST# 8	P.M.	75.00 TO 74.00	L #	1 OF 1	DIRECT: SB	DEFLECTION DATA				
SURFACE: RHMAOGFC-H	BASE AGG.	BASE	WEATHER	clear		AC Th.	TOTAL Th.	MEAN	80TH	
CONTROLS? YES		GUARD RAIL	TEMP AIR	36	SURFACE	42	0.72 FT	0.72 FT	0.010 IN	0.011 IN
							219 MM	219 MM	0.244 MM	0.278 MM
ALLIGATOR = NONE		TRANS = CONTINUOUS		LONG = INTERMITTENT		D/OUT = NONE				
D/HOLES = NONE		PUMP = NONE		CORRU = NONE		BLEED = NONE				
PATCH = CONTINUOUS		RUTTING = NONE		RAVEL = NONE						
COMMENTS : CORE WAS DELAMINATED @ 0.08' FROM TOP.										

TEST# 9	P.M.	74.00 TO 73.00	L #	1 OF 1	DIRECT: SB	DEFLECTION DATA				
SURFACE: RHMAOGFC-H	BASE AGG.	BASE	WEATHER	overcast		AC Th.	TOTAL Th.	MEAN	80TH	
CONTROLS? YES		GUARD RAIL	TEMP AIR	66	SURFACE	79	0.85 FT	0.85 FT	0.010 IN	0.012 IN
							259 MM	259 MM	0.258 MM	0.312 MM
ALLIGATOR = NONE		TRANS = CONTINUOUS		LONG = NC		D/OUT = NONE				
D/HOLES = NONE		PUMP = NONE		CORRU = NONE		BLEED = NONE				
PATCH = CONTINUOUS		RUTTING = NONE		RAVEL = NONE						
COMMENTS : CORE WAS DELAMINATED @ 0.11' FROM TOP.										

TEST# 10	P.M.	73.00 TO 72.00	L #	1 OF 1	DIRECT: SB	DEFLECTION DATA				
SURFACE: RHMAOGFC-H	BASE AGG.	BASE	WEATHER	overcast		AC Th.	TOTAL Th.	MEAN	80TH	
CONTROLS? NO			TEMP AIR	67	SURFACE	73	0.80 FT	0.80 FT	0.011 IN	0.013 IN
							244 MM	244 MM	0.281 MM	0.328 MM
ALLIGATOR = NONE		TRANS = NC		LONG = NONE		D/OUT = NONE				
D/HOLES = NONE		PUMP = NONE		CORRU = NONE		BLEED = NONE				
PATCH = CONTINUOUS		RUTTING = NONE		RAVEL = NONE						
COMMENTS : CORE WAS DELAMINATED @ 0.10' FROM TOP.										

DEFLECTION SUMMARY SHEET

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

EA #	DIST.	COUNTY	ROUTE	PROJECT LIMITS	OPERATOR	DATE
34120K	9	MNO	395	69.6/76.1	WALLS	03/10/09

TEST# <u>11</u> P.M. <u>72.00</u> TO <u>71.00</u> L.# <u>1</u> OF <u>1</u> DIRECT: <u>SB</u> SURFACE: <u>HMAOGFC-H</u> BASE AGG. BASE WEATHER <u>overcast</u> CONTROLS? <u>NO</u> , TEMP AIR <u>36</u> SURFACE <u>35</u>	DEFLECTION DATA <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-decoration: underline;">AC Th.</th> <th style="text-decoration: underline;">TOTAL Th.</th> <th style="text-decoration: underline;">MEAN</th> <th style="text-decoration: underline;">80TH</th> </tr> </thead> <tbody> <tr> <td>0.60 FT</td> <td>0.70 FT</td> <td>0.009 IN</td> <td>0.011 IN</td> </tr> <tr> <td>183 MM</td> <td>213 MM</td> <td>0.229 MM</td> <td>0.269 MM</td> </tr> </tbody> </table>	AC Th.	TOTAL Th.	MEAN	80TH	0.60 FT	0.70 FT	0.009 IN	0.011 IN	183 MM	213 MM	0.229 MM	0.269 MM
AC Th.	TOTAL Th.	MEAN	80TH										
0.60 FT	0.70 FT	0.009 IN	0.011 IN										
183 MM	213 MM	0.229 MM	0.269 MM										
ALLIGATOR = NONE TRANS = NC LONG = NONE D/OUT = NONE D/HOLES = NONE PUMP = NONE CORRU = NONE BLEED = NONE PATCH = CONTINUOUS RUTTING = NONE RAVEL = NONE													
COMMENTS : MEASURED CORE HOLE @ 0.70' CORE WAS DELAMINATED @ 0.07' FROM TOP.													

TEST# <u>12</u> P.M. <u>71.00</u> TO <u>69.60</u> L.# <u>1</u> OF <u>1</u> DIRECT: <u>SB</u> SURFACE: <u>HMAOGFC-H</u> BASE AGG. BASE WEATHER <u>clear</u> CONTROLS? <u>YES</u> , GUARD RAIL TEMP AIR <u>64</u> SURFACE <u>82</u>	DEFLECTION DATA <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-decoration: underline;">AC Th.</th> <th style="text-decoration: underline;">TOTAL Th.</th> <th style="text-decoration: underline;">MEAN</th> <th style="text-decoration: underline;">80TH</th> </tr> </thead> <tbody> <tr> <td>0.75 FT</td> <td>0.75 FT</td> <td>0.011 IN</td> <td>0.014 IN</td> </tr> <tr> <td>229 MM</td> <td>229 MM</td> <td>0.276 MM</td> <td>0.349 MM</td> </tr> </tbody> </table>	AC Th.	TOTAL Th.	MEAN	80TH	0.75 FT	0.75 FT	0.011 IN	0.014 IN	229 MM	229 MM	0.276 MM	0.349 MM
AC Th.	TOTAL Th.	MEAN	80TH										
0.75 FT	0.75 FT	0.011 IN	0.014 IN										
229 MM	229 MM	0.276 MM	0.349 MM										
ALLIGATOR = NONE TRANS = NC LONG = ISOLATED D/OUT = NONE D/HOLES = NONE PUMP = NONE CORRU = NONE BLEED = NONE PATCH = NC RUTTING = NONE RAVEL = NONE													
COMMENTS : RUBBER HOT MIX ASPHALT OPEN GRADE FRICTION COURSE-HIGH BINDER (RHMAOG-HB) OVERLAY ENDS @ PM 69.93. CHIP SEAL BEGINS @ PM 69.93 CORE WAS DELAMINATED @ 0.10' FROM TOP.													

ATTACHMENT J

Field Scoping and Review Attendance Roster

Scoping Team Field Review Attendance Roster

Project: Green Lakes Rehab / EA 09-34120

Date: October 12, 2010

A field review of the above project was conducted on October 12, 2010 by members of the Project Development Team to assess scoping of proposed improvements. Those in attendance were:

Tom Meyers-Project Manager

Nancy Escallier-Right-of-Way

Matt Gaffney-Environmental

Brian Wesling-Design Manager

Tom Waters-Project Engineer

ATTACHMENT K
2008 PCS Inventory

Collection Date: 09/05/2008
 Printed: 03/18/2011

Caltrans Maintenance Program 2008 Pavement Condition Survey Inventory Caltrans Drive Order

District 9
 County MNO
 Route 395
 Begin PM 69.000

District 9, MNO, Rte 395, PM 69.8 - 76.0

District 9 County MNO Route 395

Begin PM - End PM	Lane	Surface Type	Alligator Cracking		Length	LaneMi. (Est.)	Type	AADT (,000)	MSL	Faulting		Ride, IRI	Priority	Skid	Defect
			A %	B %						1st %	3rd %				
69.000	L1	F-DG	0	0	1.000	3.000	MLU	3	1			6	90	33	MISC. UNSEALED CRACKS
	R1	F-DG	1	3								5	83	32	LOW A & B, OPEN CRKS
70.000	L1	F-DG	0	24	1.000	2.000	2LNU	3	1			5	79	9	MOD ABC
	R1	F-DG	53	14								5	86	9	MOD ABC
71.000	L1	F-DG	0	33	1.000	2.000	2LNU	3	1			5	75	7	HIGH ABC
	R1	F-DG	15	4								5	79	32	LOW A & B, OPEN CRKS
72.000	L1	F-DG	0	17	1.000	2.000	2LNU	3	1			5	67	9	MOD ABC
	R1	F-DG	57	40								5	71	7	HIGH ABC
73.000	L1	F-DG	0	16	1.000	2.000	2LNU	3	1			5	73	9	MOD ABC
	R1	F-DG	57	14								5	76	9	MOD ABC
74.000	L1	F-DG	0	24	1.000	2.000	2LNU	3	1			5	81	9	MOD ABC
	R1	F-DG	17	4								5	78	32	LOW A & B, OPEN CRKS
75.000	L1	F-DG	50	0	0.665	1.330	2LNU	3	1			5	82	32	ALL. A, NO ALL. B
	R1	F-DG	50	0								5	71	32	ALL. A, NO ALL. B
75.665	L1	F-OG	0	0	0.647	1.294	2LNU	3	1			6	89	33	MISC. UNSEALED CRACKS
	R1	F-OG	0	0								5	86	33	MISC. UNSEALED CRACKS

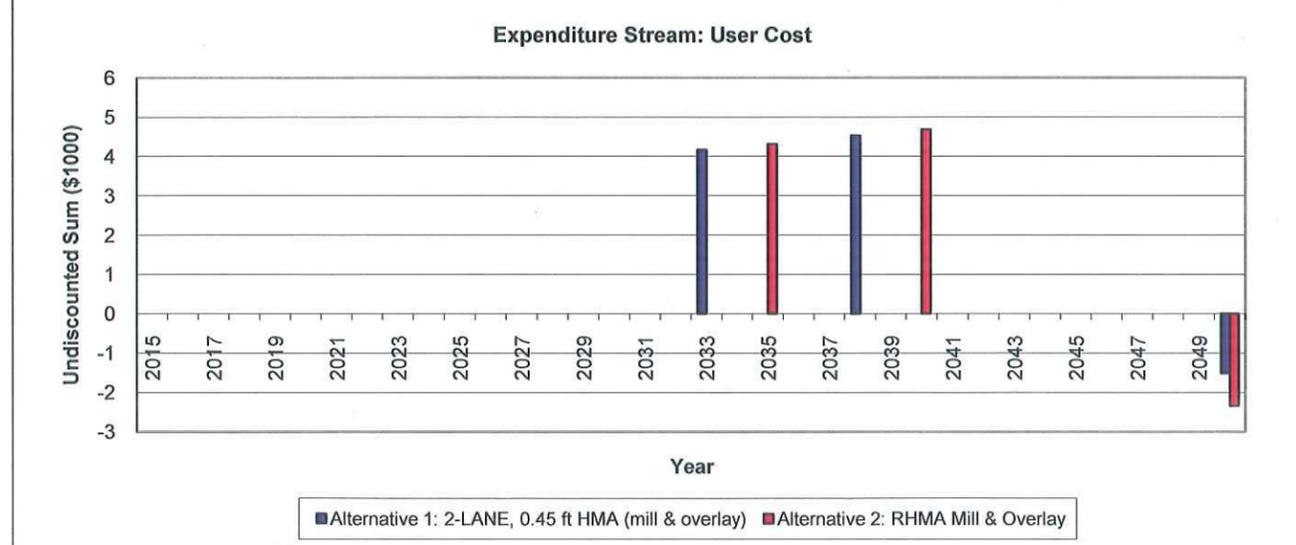
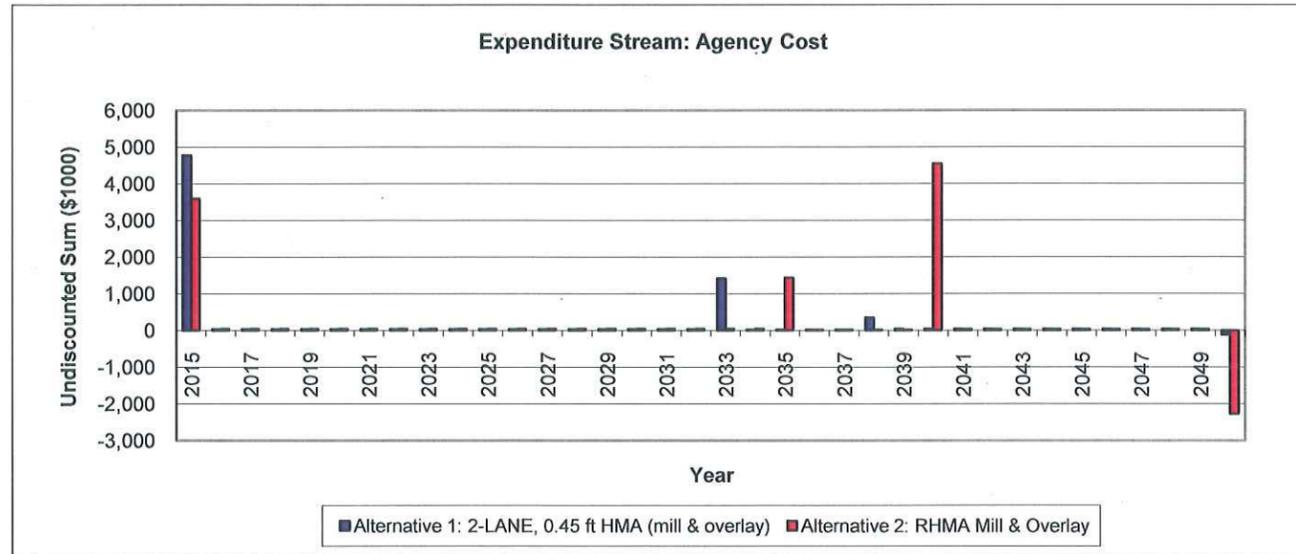
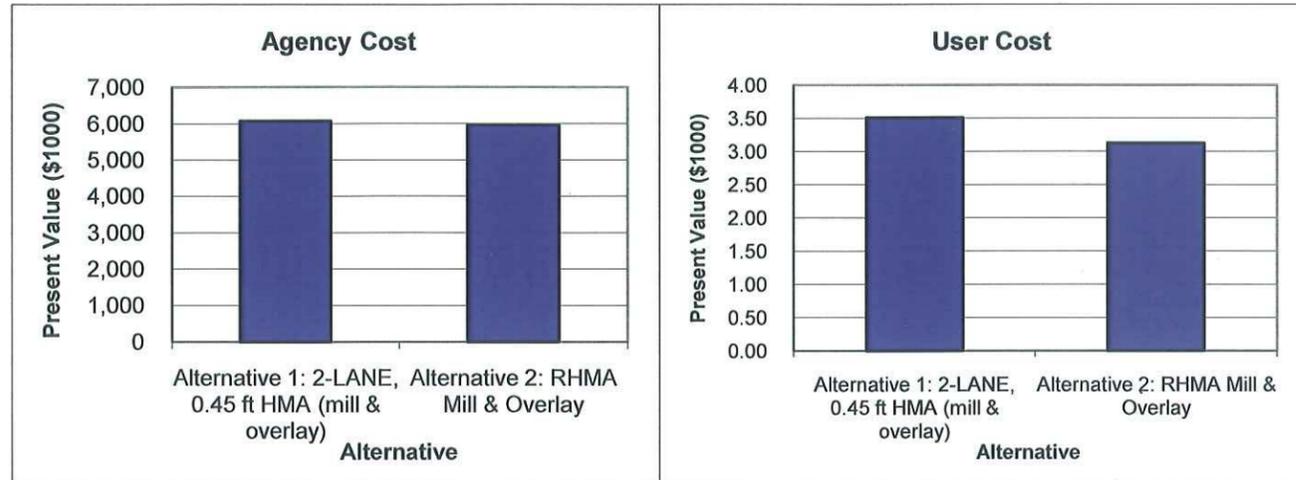
ATTACHMENT L
Life Cycle Cost Analysis

Probabilistic Life Cycle Cost Analysis Worksheet

Update Results

Total Cost				
Total Cost	Alternative 1: 2-LANE, 0.45 ft HMA (mill & overlay)		Alternative 2: RHMA Mill & Overlay	
	Agency Cost (\$1000)	User Cost (\$1000)	Agency Cost (\$1000)	User Cost (\$1000)
Undiscounted Sum	\$7,377.60	\$7.19	\$8,332.40	\$6.65
Present Value	\$6,081.91	\$3.51	\$5,968.96	\$3.13
EUAC	\$325.85	\$0.19	\$319.80	\$0.17
Lowest Present Value Agency Cost	Alternative 2: RHMA Mill & Overlay			
Lowest Present Value User Cost	Alternative 2: RHMA Mill & Overlay			

Expenditure Stream				
Year	Alternative 1: 2-LANE, 0.45 ft HMA (mill & overlay)		Alternative 2: RHMA Mill & Overlay	
	Agency Cost (\$1000)	User Cost (\$1000)	Agency Cost (\$1000)	User Cost (\$1000)
2015	\$4,770.00		\$3,590.00	
2016	\$27.60		\$37.20	
2017	\$27.60		\$37.20	
2018	\$27.60		\$37.20	
2019	\$27.60		\$37.20	
2020	\$27.60		\$37.20	
2021	\$27.60		\$37.20	
2022	\$27.60		\$37.20	
2023	\$27.60		\$37.20	
2024	\$27.60		\$37.20	
2025	\$27.60		\$37.20	
2026	\$27.60		\$37.20	
2027	\$27.60		\$37.20	
2028	\$27.60		\$37.20	
2029	\$27.60		\$37.20	
2030	\$27.60		\$37.20	
2031	\$27.60		\$37.20	
2032	\$27.60		\$37.20	
2033	\$1,416.00	\$4.17	\$37.20	
2034	\$13.20		\$37.20	
2035	\$13.20		\$1,428.00	\$4.31
2036	\$13.20		\$13.20	
2037	\$13.20		\$13.20	
2038	\$351.00	\$4.53	\$13.20	
2039	\$39.60		\$13.20	
2040	\$39.60		\$4,548.00	\$4.69
2041	\$39.60		\$31.20	
2042	\$39.60		\$31.20	
2043	\$39.60		\$31.20	
2044	\$39.60		\$31.20	
2045	\$39.60		\$31.20	
2046	\$39.60		\$31.20	
2047	\$39.60		\$31.20	
2048	\$39.60		\$31.20	
2049	\$39.60		\$31.20	
2050	(\$117.00)	(\$1.51)	(\$2,274.00)	(\$2.34)



ATTACHMENT M

Stormwater Data Report Signature Page



Dist-County-Route: 09-Mno-395
 Post Mile Limits: 69.9 / 75.9
 Project Type: Resurfacing, Restoration, & Rehabilitation
 Project ID (or EA): 09-34120
 Program Identification: 20.10.201.120
 Phase: L PID
 PA/ED
 PS&E

Regional Water Quality Control Board(s): Lahontan

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

If No, a Technical Data Report must be submitted to the RWQCB at least 30 days prior to the projects RTL date. List RTL Date: N/A (PID phase)

Total Disturbed Soil Area: 20 acres (approx.) at PID level of develop. Risk Level: 2

Estimated: Construction Start Date: 2015 Construction Completion Date: not known

Notification of Construction (NOC) Date to be submitted: 30 days prior to start of construction

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

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

Brian P. Wesling, Registered Project Engineer/Landscape Architect Date

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

Tom Meyers 5-6-11
 Tom Meyers, Project Manager Date
Charley Davis 5-4-11
 Charley Davis, Designated Maintenance Representative Date
R. Steve Miller 5-3-11
 R. Steve Miller, Designated Landscape Architect Representative Date
Rebecca Eastman 5/6/11
 Rebecca Eastman, District/Regional Design SW Coordinator or Designee Date

[Stamp Required for PS&E only]

ATTACHMENT N
SB45 Support Cost Summary

[Back to Project Portal](#)

Support Cost Estimate Report (SB45 Report)

EA: 09-34120

PM: Tom Meyers

Today's Date, Time: Mon, May 23, 2011, 02:10 PM

[Click here to export table data to Excel](#)
[Click here for Resource/Division Summary](#)

Non-escalated Data			12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Support Category										
Permit/Env (PA&ED)	Hours		1,779	3,587	3,621	1,924				
	Dollars		\$151,763	\$306,040	\$306,789	\$161,005				
PS&E	Hours				359	11,211	5,291	533	108	
	Dollars				\$33,418	\$990,977	\$476,303	\$46,232	\$10,697	
Right of Way	Hours					1,466	1,318	715	720	23
	Dollars					\$132,718	\$92,650	\$51,782	\$59,621	\$2,209
RW Prop Mgmt and XS Lands	Hours									
	Dollars									
Construction	Hours						187	12,175	6,243	33
	Dollars						\$17,721	\$1,057,906	\$536,819	\$2,654
Summations	Hours		1,779	3,587	3,980	14,600	6,795	13,423	7,072	56
	Dollars		\$151,763	\$306,040	\$340,207	\$1,284,699	\$586,674	\$1,155,921	\$607,137	\$4,863

Escalated Data		Current FY = 10/11; Escalation begins at start of 11/12 ; Escalation rate = 3.10%								
Support Category			12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Permit/Env (PA&ED)	Hours		1,779	3,587	3,621	1,924				
	Dollars		\$161,318	\$335,394	\$346,637	\$187,557				
PS&E	Hours				359	11,211	5,291	533	108	
	Dollars				\$37,758	\$1,154,401	\$572,052	\$57,247	\$13,656	
Right of Way	Hours					1,466	1,318	715	720	23
	Dollars					\$154,604	\$111,275	\$64,120	\$76,114	\$2,908
RW Prop Mgmt and XS Lands	Hours									
	Dollars									
Construction	Hours						187	12,175	6,243	33
	Dollars						\$21,283	\$1,309,959	\$685,326	\$3,493
Summations	Hours		1,779	3,587	3,980	14,600	6,795	13,423	7,072	56
	Dollars		\$161,318	\$335,394	\$384,395	\$1,496,562	\$704,610	\$1,431,327	\$775,097	\$6,401

* indicates dollar value that is unescalated due to past or current FY

Support Cost Summary

(escalation takes place for future activities only)

Project Component	Hours	Dollars	FY Begin**	FY End
Permit/Env (PA&ED)	10,911	\$1,030,905	12/13	15/16
PS&E	17,501	\$1,835,115	14/15	18/19
Right of Way	4,242	\$409,022	15/16	19/20
R/W Prop Mgmt and XSLands	0	\$0		
Construction	18,638	\$2,020,062	17/18	19/20
Summations	51,292 (29.18 PYs)	\$5,295,103		

** FY dates are collapsed

XPM Project Schedule

Milestone	Date
PA&ED (M200)	10/15/2015
R/W Certification (M410)	08/04/2017
Ready to List (M460)	08/04/2017
Approve Contract (M500)	n/a
CCA (M600)	10/12/2018

ATTACHMENT O

Risk Register

Central Region Project Management Support Unit - *Caltrans Improves Mobility*

Tuesday, October 18, 2011, 11:21 AM

Project
1/1

Risk Register Report

Project 09-34120_ / Risk ID 843

CO - RTE - PM MNO - 395 - 69.9 / 75.9
 Project Manager Meyers, Tom
 Project Name GREEN LAKES REHAB
 Location Desc ON ROUTE US 395 FROM JUNCTION WITH BODIE ROAD (SR 270)/PM 69.9 TO JACK SAWYER ROAD IN BRIDGEPORT/PM 75.9
 Work Desc PAVEMENT REHAB

Date Identified	Entered By	Functional Unit	Status	Factor	Priority	Type
05/23/2011	Tom Meyers	Environmental	Dormant	Threat		Schedule
Strategy	Probability	Impact	Impact (\$)	Impact (days)	Owner	Phase
Accept	Moderate	Moderate	0	0	kirsten helton	PA&ED

Description Project is next to a creek with good habitat values, nothing out of the ordinary is expected but endangered speices could be incoutered. Cost and schedule impact
 Trigger finding an endanged species
 Response If encountered, mitigation (cost) and schedule will suffer
 Common Risks Environmental:Historic site, endang. species, riparian, wetlands, pub. park
 Other Risks

Project 09-34120_ / Risk ID 844

Date Identified	Entered By	Functional Unit	Status	Factor	Priority	Type
05/23/2011	Tom Meyers	Environmental	Dormant	Threat		Cost
Strategy	Probability	Impact	Impact (\$)	Impact (days)	Owner	Phase
Avoid	High	Moderate	0	0	kirsten helton	PA&ED

Description Wetlands will be impacted. The availability of mitigation lands or other offsets is a risk. This area is hard to mitigate in.
 Trigger Need to purchase mitigation land
 Response Currently, there is an offset available. If the project can proceed prior to this fee based offset filling up, time and cost will be controlled. (State Conservancy wetlands creation plan for area needs money).
 Common Risks Environmental:Acquisition, creation or restoration of on or off-site mitigation
 Other Risks

Project 09-34120_ / Risk ID 845

Date Identified	Entered By	Functional Unit	Status	Factor	Priority	Type
05/23/2011	Tom Meyers	DES	Dormant	Threat		Cost
Strategy	Probability	Impact	Impact (\$)	Impact (days)	Owner	Phase
Accept	Moderate	High	0	0	Geotec	PA&ED

Description Project has rock and soil slopes (big ones) of unknown quality. It also has streambed and streambank work with unknown soil structure. Testing is needed. No abonormal material is expected but ...
 Trigger field studies find the unexpected (geotek)
 Response Field studies for soil and rock qualities will take place early in PAED. Thus any problems can be identified and handled early when it is easier to make changes.
 Common Risks Engineering Services:Complex struct. hydraulic design req. investigation and planning
 Other Risks

Project 09-34120_ / Risk ID 846

Date Identified	Entered By	Functional Unit	Status	Factor	Priority	Type
05/23/2011	Tom Meyers	Right of Way	Dormant	Threat		Schedule
Strategy	Probability	Impact	Impact (\$)	Impact (days)	Owner	Phase
Accept	Moderate	Moderate	0	0	Nancy Escallier	R/W

Description Both public and private land is needed for this project. Unwilling sellers is always a problem
 Trigger right of way aquisition
 Response No action, just monitor as project develops
 Common Risks Right of Way:Objections to Right of Way appraisal req. add'l time/money
 Other Risks

Project 09-34120_ / Risk ID 847

Date Identified	Entered By	Functional Unit	Status	Factor	Priority	Type
05/23/2011	Tom Meyers	Environmental	Dormant	Threat		Schedule
Strategy	Probability	Impact	Impact (\$)	Impact (days)	Owner	Phase
Accept	High	High	0	0	tom meyers	PA&ED

Description	Staffing problems currently exist and are causing significant problems. Dependant on political climate at the time work is scheduled
Trigger	All phases
Response	Work with management to prioritize work. Change schedule for lower priority work.
Common Risks	Organizational:Losing critical staff at crucial point of the project
Other Risks	

Project 09-34120_ / Risk ID 848

Date Identified	Entered By	Functional Unit	Status	Factor	Priority	Type
05/23/2011	Tom Meyers	Right of Way	Dormant	Threat		Schedule
Strategy	Probability	Impact	Impact (\$)	Impact (days)	Owner	Phase
Mitigate	Moderate	Moderate	0	0	Nancy Escallier	R/W

Description	This is a utility corridor. If utilities are not where they are supposed to be its a problem. Also, getting all the utilities moved in a timely manner is a risk
Trigger	Utility clearance and movement
Response	Early identification so lead time is maxed. Also, could require construction delay by a season (a year)
Common Risks	Project Management:Seasonal requirements during utility relocation
Other Risks	

Project 09-34120_ / Risk ID 849

Date Identified	Entered By	Functional Unit	Status	Factor	Priority	Type
05/23/2011	Tom Meyers	Environmental	Dormant	Threat		Schedule
Strategy	Probability	Impact	Impact (\$)	Impact (days)	Owner	Phase
Avoid	Low	Very High	0	0	Kirsten Helton	PA&ED

Description	Project scoped with a ND, if an eir is required both major schedule and cost impact
Trigger	Completion of environmental document
Response	If this happens, consider rescope to remove need for EIR, if not, PCR for schedule and cost change
Common Risks	Environmental:Unforeseen formal NEPA/Env0Env consultation is required
Other Risks	

Project 09-34120_ / Risk ID 850

Date Identified	Entered By	Functional Unit	Status	Factor	Priority	Type
05/23/2011	Tom Meyers	Design	Dormant	Threat		Schedule
Strategy	Probability	Impact	Impact (\$)	Impact (days)	Owner	Phase
Accept	Low	Moderate	0	0	Brian Wesling	PS&E

Description	All known design exceptions are being processed in the PID stage, none should be needed later. If there are some such as to avoid environmental impacts, this will impact the schedule
Trigger	New design exception needed for any reason during PS&E
Response	Identify early when schedule may accomodate
Common Risks	Design:Unresolved constructability items
Other Risks	

Project 09-34120_ / Risk ID 851

Date Identified	Entered By	Functional Unit	Status	Factor	Priority	Type
05/23/2011	Tom Meyers	DES	Dormant	Threat		Schedule
Strategy	Probability	Impact	Impact (\$)	Impact (days)	Owner	Phase
Avoid	High	Low	0	0	brad rockwell	PS&E

Description	Special provisions are incorrect so have to redo paperwork. Schdule impact plus minor support cost impact
Trigger	DES preparing contract documents
Response	Identify special conditions and provisions early and get them included from the beginning and get them right.
Common Risks	Design:Design incomplete
Other Risks	

Project 09-34120_ / Risk ID 852

Date Identified	Entered By	Functional Unit	Status	Factor	Priority	Type
05/23/2011	Tom Meyers	PPM	Dormant	Threat		Schedule
Strategy	Probability	Impact	Impact (\$)	Impact (days)	Owner	Phase
Accept	High	High	0	0	tom meyers	Construction

Description Funding fluctuates and may not be available as programmed (scheduled) This of course delays the schedule but also adds rework and delay costs.
 Trigger request for construction funding to the CTC
 Response Just react and try to minimize ongoing overhead and rework costs
 Common Risks Organizational:Capital funding unavailable for right of way or construction
 Other Risks

Project 09-34120_ / Risk ID 865

Date Identified	Entered By	Functional Unit	Status	Factor	Priority	Type
10/17/2011	Brian Wesling	Environmental	Dormant	Threat		Cost
Strategy	Probability	Impact	Impact (\$)	Impact (days)	Owner	Phase
Avoid	Very Low	Very High	5000000	0	Patricia Moyer	PA&ED

Description The environmental mitigation costs for this alternative have the potential to be much higher. If alternative 2 is chosen a more detailed study and extensive mitigation cost estimate will be required.
 Trigger Alt 2 is selected as the preferred alternative.
 Response Avoid
 Common Risks Environmental:Unanticipated cumulative impact issues
 Other Risks

Project 09-34120_ / Risk ID 866

Date Identified	Entered By	Functional Unit	Status	Factor	Priority	Type
10/17/2011	Brian Wesling	Environmental	Dormant	Threat		Schedule
Strategy	Probability	Impact	Impact (\$)	Impact (days)	Owner	Phase
Avoid	Very Low	Very High	0	500	Patricia Moyer	PA&ED

Description Permitting agencies will not issue permits since there is an alternative with approved design exceptions that reduces or eliminates impacts.
 Trigger Alt 2 is selected as the preferred alternative
 Response Avoid
 Common Risks Environmental:Unforeseen formal NEPA/Env0Env consultation is required
 Other Risks

ATTACHMENT P

Safety & Constructability Review Meetings Attendance Sheets

Sign-in Sheet

EA: 09-34120k (0900000129)

PID Level Constructability Review for Green Lake Rehab

Date: June 17, 2011

Time: 1:00 - 2:00 PM

Location: Mt. Whitney VTC



	Name	Signature	Division/Agency	Phone Number
1	Brian Westling	<i>[Signature]</i>	Design	630
2	Craig Holste	<i>[Signature]</i>	mtrce & ops,	670
3	Ferry Eklwen	<i>[Signature]</i>	ops	650
4	Tina Shufk	<i>[Signature]</i>	Const.	x211
5	Gaule Rosander	<i>[Signature]</i>	Planning	x785
6	Brad Rockwell	<i>[Signature]</i>	OE	5251
7	DONNIE MAHA	<i>[Signature]</i>	PLANNING/PWA	x424
8	Cassie Lawson	<i>[Signature]</i>	design	636
9	John Fox	<i>[Signature]</i>	MTRCE Engr	5207
10	Ryan Derrady	<i>[Signature]</i>	Planning	691
11	N. Soudier	<i>[Signature]</i>	RW	641
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Sign-in Sheet

EA: 09-34120k (0900000129)

PID Level Safety Review for Green Lake Rehab

Date: June 17, 2011

Time: 2:00 PM

Location: Mt. Whitney VTC



	Name	Signature	Division/Agency	Phone Number
1	Brian Westling	<i>[Signature]</i>	Design	630
2	Carre Longreen	<i>[Signature]</i>	design	636
3	Dianne Alcala	<i>[Signature]</i>	PPM/Planning	774
4	Tim Shultz	<i>[Signature]</i>	Const.	211
5	STEPHEN WINZENREAD	<i>[Signature]</i>	DESIGN	222
6	Terry Edwein	<i>[Signature]</i>	Safety	650
7	John Fox	<i>[Signature]</i>	MTC/Eng	8207
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