ROAD REPAIR AND ACCOUNTABILITY ACT OF 2017
PROJECT BASELINE AGREEMENT
US-50 ICM Infrastructure (EA 03-3H330)

Resolution SHOPP-P-1920-03B
(will be completed by CTC)

1. FUNDING PROGRAM

- ☐ Active Transportation Program
- ☐ Local Partnership Program (Competitive)
- ☐ Solutions for Congested Corridors Program
- ☒ State Highway Operation and Protection Program
- ☐ Trade Corridor Enhancement Program

2. PARTIES AND DATE

2.1 This Project Baseline Agreement (Agreement) for the *US-50 ICM Infrastructure (EA 03-3H330)*, effective on, 12/5/19 (will be completed by CTC), is made by and between the California Transportation Commission (Commission), the California Department of Transportation (Caltrans), the Project Applicant, *Caltrans*, and the Implementing Agency, *Caltrans*, sometimes collectively referred to as the "Parties".

3. RECITAL

3.2 Whereas at its March 22, 2018 meeting the Commission approved the State Highway Operation and Protection Program, and included in this program of projects the *US-50 ICM Infrastructure (EA 03-3H330)*, the parties are entering into this Project Baseline Agreement to document the project cost, schedule, scope and benefits, as detailed on the Project Programming Request Form attached hereto as Exhibit A and the Project Report attached hereto as Exhibit B, as the baseline for project monitoring by the Commission.

3.3 The undersigned Project Applicant certifies that the funding sources cited are committed and expected to be available; the estimated costs represent full project funding; and the scope and description of benefits is the best estimate possible.

4. GENERAL PROVISIONS

The Project Applicant, Implementing Agency, and Caltrans agree to abide by the following provisions:

4.1 To meet the requirements of the Road Repair and Accountability Act of 2017 (Senate Bill [SB] 1, Chapter 5, Statutes of 2017) which provides the first significant, stable, and on-going increase in state transportation funding in more than two decades.

4.2 To adhere, as applicable, to the provisions of the Commission:

- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the Active Transportation Program", dated
- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the Local Partnership Program", dated
- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the Solutions for Congested Corridors Program", dated
- ☒ Resolution G-18-13, "Adoption of Program of Projects for the State Highway Operation and Protection Program", dated March 22, 2018
- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the Trade Corridor Enhancement Program", dated

4.3 All signatories agree to adhere to the Commission's State Highway Operation and Protection Program, Guidelines. Any conflict between the programs will be resolved at the discretion of the Commission.

4.4 All signatories agree to adhere to the Commission's SB 1 Accountability and Transparency Guidelines and policies, and program and project amendment processes.

4.5 Caltrans agrees to secure funds for any additional costs of the project.

4.6 Caltrans agrees to report on a quarterly basis; after July 2019, reports will be on a semi-annual basis on the progress made toward the implementation of the project, including scope, cost, schedule, outcomes, and anticipated benefits.

4.7 Caltrans agrees to prepare program progress reports on a quarterly basis; after July 2019, reports will be on a semi-annual basis and include information appropriate to assess the current state of the overall program and the current status of each project identified in the program report.

4.8 Caltrans agrees to submit a timely Completion Report and Final Delivery Report as specified in the Commission's SB 1 Accountability and Transparency Guidelines.

4.9 All signatories agree to maintain and make available to the Commission and/or its designated representative, all work related documents, including without limitation engineering, financial and other data, and methodologies and assumptions used in the determination of project benefits during the course of the project, and retain those records for four years from the date of the final closeout of the project. Financial records will be maintained in accordance with Generally Accepted Accounting Principles.

4.10 The Transportation Inspector General of the Independent Office of Audits and Investigations has the right to audit the project records, including technical and financial data, of the Department of Transportation, the Project Applicant, the Implementing Agency, and any consultant or sub-consultants at any time during the course of the project and for four years from the date of the final closeout of the project, therefore all project records shall be maintained and made available at the time of request. Audits will be conducted in accordance with Generally Accepted Government Auditing Standards.

5. SPECIFIC PROVISIONS AND CONDITIONS

5.1 Project Schedule and Cost
See Project Programming Request Form, attached as Exhibit A.

5.2 Project Scope
See Project Report or equivalent, attached as Exhibit B. At a minimum, the attachment shall include the cover page, evidence of approval, executive summary, and a link to or electronic copy of the full document.

5.3 Other Project Specific Provisions and Conditions

Attachments:

Exhibit A: Project Programming Request Form
Exhibit B: Project Report

SIGNATURE PAGE
TO
PROJECT BASELINE AGREEMENT

US-50 ICM Infrastructure (EA 03-3H330)

Resolution SHOPP-P-1920-03B

Amarjeet S. Benipal — Date 10/17/19

Amarjeet S. Benipal

District Director

California Department of Transportation

Toks Omishakin — Date 11-13-19

Toks Omishakin

Director

California Department of Transportation

Susan Bransen — Date 12/20/19

Susan Bransen

Executive Director

California Transportation Commission

Baseline agreement information was extracted from Caltrans' project data systems. Project description, funding and performance measures are from CTIPS. Project delivery milestones are from PRSM. All information is current and accurate.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

BASELINE AGREEMENT

Date:	10/11/19 08:04:08 AM

District	EA	Project ID	PPNO	Project Manager
03	3H330	0317000325	6250	ROGERS, JIM K

County	Route	Begin Postmile	End Postmile	Implementing Agency	
SAC	50	L 0.0	17.5	PA&ED	Caltrans
				PS&E	Caltrans
				Right of Way	Caltrans
				Construction	Caltrans

Project Nickname

US 50 ICM Infrastructure

Location/Description

In and near the cities of Sacramento, Rancho Cordova, and Folsom, from Yolo County line to Folsom Boulevard; also in Yolo County in West Sacramento, from Route 80 to Sacramento County line (PM 0.0 to 3.156), and on Route 80 from Enterprise Boulevard to Route 50 (PM 9.2 to R9.552). Install Transportation Management System (TMS) field elements.

Legislative Districts

Assembly:	07, 08	Senate:	01, 06	Congressional:	06, 07

PERFORMANCE MEASURES

	Primary Asset	Good	Fair	Poor	New	Total	Units
Existing Condition	Transportation Management Systems (Elements)			52		52	Each
Programmed Condition	Transportation Management Systems (Elements)	52			27	79	Each

Project Milestone	Actual	Planned
Project Approval and Environmental Document Milestone	08/13/19	
Right of Way Certification Milestone		09/16/20
Ready to List for Advertisement Milestone		10/15/20
Begin Construction Milestone (Approve Contract)		04/05/21

FUNDING (Allocated amounts are shaded)

Component	Fiscal Year	SHOPP					Total
PA&ED	18/19	940					940
PS&E	18/19	3,000					3,000
RW Support	18/19	520					520
Const Support	20/21	3,900					3,900
RW Capital	20/21	200					200
Const Capital	20/21	38,400					38,400
Total		46,960					46,960

03-Yol-80-PM 9.2/R9.55, Yol-50- PM0.0/3.15, Sac-50-PM L0.0/17.5
EA: 03-3H3300 – Project ID: 0317000325 – PPNO: 6250
Transportation Management Systems – 20.XX.201.315
July 2019

EA 03-3H330 Project Report

On Routes Yol 50,80 & Sac 50

Between City of West Sacramento

And City of Folsom

I have reviewed the right-of-way information contained in this report and the right-of-way data sheet attached hereto, and find the data to be complete, current and accurate:

JOHN BALLANTYNE, *CHIEF, NORTH REGION RIGHT OF WAY*

APPROVAL RECOMMENDED:

JIM ROGERS, *PROJECT MANAGER*

APPROVED:

for **AMARJEET S. BENIPAL**, *DISTRICT DIRECTOR*

8/13/19
DATE

03-3H330_M200 -PR Deputy Review Summary					
	Comments	Name	Signature Date	Notes	Corrective Action
Right of Way	Yes	John Ballentyne	8/12/2019	Delete milestones (no ROW certs), update contacts	Updated schedule, PR, and programming sheet. Returned to Doug 8/9/19
Planning	No	Sue Takhar for Marlon Flournoy	8/7/2019		
Project Development	Yes	Karl Dreher	8/15/19	Misc RR/Programming Sheet/PR edits.	Updated Risk Register and Programming Sheet. Returned to Winder.
Environmental	No	Suzi Melim for Carlos Portillo	8/15/2019		
Construction	No	Andy Alvarado	8/6/2019		
Project Management	Yes	Sutha Suthahar	8/12/2019	RTL date update and PM updates	Updated PR and Programming Sheet
Maintenance / Operations	Yes	Brian Alconcel for Tom Brannon	8/9/2019	Add "and US 50" on page 4.	
Administration	Yes	Susan Elkins	8/6/2019	Need funding for Admin. Admin is part of this project's PDT.	Added PIO and Graphics to PDT and allocated hours in both 0 phase and 1 phase.

Deputy Review End Date: 8/8/19 **PDT Updates Due Date: 8/9/19** **Deputy Signature End Date: 8/12/19**

PID (PIR), DPR and PR Review

I have reviewed the 03-3H330 US 50 ICM Infrastructure Project Report and concur

with the Scope, Schedule and Cost (Support and Capital), as documented in Risk Management Plan.

The goal for support costs for Major Projects to be 32% and Minor Projects to be 60%. If project exceeds these thresholds, list efficiency measures proposed for this project.

RIGHT OF WAY

JOHN BALLANTYNE Initial:_____ Date: 8/12/19

PLANNING – (Confirm Consistency with Asset Management Plan, Local Transportation Plans (RTP & MTP), Comprehensive Multi-Modal Corridor Plan, etc.)

MARLON FLOURNOY Initial:_____ Date: _____

PROJECT DEVELOPMENT

KARL DREHER Initial:_____ Date: _____

ENVIRONMENTAL

CARLOS PORTILLO Initial:_____ Date: _____

CONSTRUCTION

ANDY ALVARADO Initial:_____ Date: _____

PROJECT MANAGEMENT

SUTHA SUTHAHAR Initial:_____ Date: _____

MAINTENANCE/OPERATIONS - (Confirm Consistency with Asset Management Plan etc.)

TOM BRANNON Initial:_____ Date: _____

ADMINISTRATION – Confirm if A & E or Service Contracts needed for PIO

SUSAN ELKINS Initial:_____ Date: _____

Submit three to four weeks prior to the milestone, receive comments **from Deputies one week prior to the milestone date.**

PID (PIR), DPR and PR Review

I have reviewed the 03-3H330 US 50 ICM Infrastructure Project Report and concur

with the Scope, Schedule and Cost (Support and Capital), as documented in Risk Management Plan.

The goal for support costs for Major Projects to be 32% and Minor Projects to be 60%. If project exceeds these thresholds, list efficiency measures proposed for this project.

RIGHT OF WAY

JOHN BALLANTYNE Initial:_____ Date: _____

PLANNING – (Confirm Consistency with Asset Management Plan, Local Transportation Plans (RTP & MTP), Comprehensive Multi-Modal Corridor Plan, etc.)

MARLON FLOURNOY Initial: _____ Date: 8/7/19

PROJECT DEVELOPMENT

KARL DREHER Initial:_____ Date: _____

ENVIRONMENTAL

CARLOS PORTILLO Initial:_____ Date: _____

CONSTRUCTION

ANDY ALVARADO Initial:_____ Date: _____

PROJECT MANAGEMENT

SUTHA SUTHAHAR Initial:_____ Date: _____

MAINTENANCE/OPERATIONS - (Confirm Consistency with Asset Management Plan etc.)

TOM BRANNON Initial:_____ Date: _____

ADMINISTRATION – Confirm if A & E or Service Contracts needed for PIO

SUSAN ELKINS Initial:_____ Date: _____

Submit three to four weeks prior to the milestone, receive comments **from Deputies one week prior to the milestone date.**

PID (PIR), DPR and PR Review

I have reviewed the 03-3H330 US 50 ICM Infrastructure Project Report and concur

with the Scope, Schedule and Cost (Support and Capital), as documented in Risk Management Plan.

The goal for support costs for Major Projects to be 32% and Minor Projects to be 60%. If project exceeds these thresholds, list efficiency measures proposed for this project.

RIGHT OF WAY

JOHN BALLANTYNE Initial:_____ Date: _____

PLANNING – (Confirm Consistency with Asset Management Plan, Local Transportation Plans (RTP & MTP), Comprehensive Multi-Modal Corridor Plan, etc.)

MARLON FLOURNOY Initial:_____ Date: _____

PROJECT DEVELOPMENT

KARL DREHER Initial:_____ Date: _____

ENVIRONMENTAL

CARLOS PORTILLO Initial: for SMelvin Date: 8/15/19

CONSTRUCTION

ANDY ALVARADO Initial:_____ Date: _____

PROJECT MANAGEMENT

SUTHA SUTHAHAR Initial:_____ Date: _____

MAINTENANCE/OPERATIONS - (Confirm Consistency with Asset Management Plan etc.)

TOM BRANNON Initial:_____ Date: _____

ADMINISTRATION – Confirm if A & E or Service Contracts needed for PIO

SUSAN ELKINS Initial:_____ Date: _____

Submit three to four weeks prior to the milestone, receive comments **from Deputies one week prior to the milestone date**.

PID (PIR), DPR and PR Review

I have reviewed the 03-3H330 US 50 ICM Infrastructure Project Report and concur

with the Scope, Schedule and Cost (Support and Capital), as documented in Risk Management Plan.

The goal for support costs for Major Projects to be 32% and Minor Projects to be 60%. If project exceeds these thresholds, list efficiency measures proposed for this project.

RIGHT OF WAY

JOHN BALLANTYNE Initial:_____ Date: _____

PLANNING – (Confirm Consistency with Asset Management Plan, Local Transportation Plans (RTP & MTP), Comprehensive Multi-Modal Corridor Plan, etc.)

MARLON FLOURNOY Initial:_____ Date: _____

PROJECT DEVELOPMENT

KARL DREHER Initial:_____ Date: _____

ENVIRONMENTAL

CARLOS PORTILLO Initial:_____ Date: _____

CONSTRUCTION

ANDY ALVARADO Initial: QQ Date: 8/6/19

PROJECT MANAGEMENT

SUTHA SUTHAHAR Initial:_____ Date: _____

MAINTENANCE/OPERATIONS - (Confirm Consistency with Asset Management Plan etc.)

TOM BRANNON Initial:_____ Date: _____

ADMINISTRATION – Confirm if A & E or Service Contracts needed for PIO

SUSAN ELKINS Initial:_____ Date: _____

Submit three to four weeks prior to the milestone, receive comments **from Deputies one week prior to the milestone date.**

PID (PIR), DPR and PR Review

I have reviewed the 03-3H330 US 50 ICM Infrastructure Project Report and concur

with the Scope, Schedule and Cost (Support and Capital), as documented in Risk Management Plan.

The goal for support costs for Major Projects to be 32% and Minor Projects to be 60%. If project exceeds these thresholds, list efficiency measures proposed for this project.

RIGHT OF WAY

JOHN BALLANTYNE Initial:_____ Date: _____

PLANNING – (Confirm Consistency with Asset Management Plan, Local Transportation Plans (RTP & MTP), Comprehensive Multi-Modal Corridor Plan, etc.)

MARLON FLOURNOY Initial:_____ Date: _____

PROJECT DEVELOPMENT

KARL DREHER Initial:_____ Date: _____

ENVIRONMENTAL

CARLOS PORTILLO Initial:_____ Date: _____

CONSTRUCTION

ANDY ALVARADO Initial:_____ Date: _____

PROJECT MANAGEMENT

SUTHA SUTHAHAR Initial:_____ Date: 8/12/19 ✓

MAINTENANCE/OPERATIONS - (Confirm Consistency with Asset Management Plan etc.)

TOM BRANNON Initial:_____ Date: _____

ADMINISTRATION – Confirm if A & E or Service Contracts needed for PIO

SUSAN ELKINS Initial:_____ Date: _____

Submit three to four weeks prior to the milestone, receive comments **from Deputies one week prior to the milestone date**.

PID (PIR), DPR and PR Review

I have reviewed the 03-3H330 US 50 ICM Infrastructure Project Report and concur with the Scope, Schedule and Cost (Support and Capital), as documented in Risk Management Plan.

The goal for support costs for Major Projects to be 32% and Minor Projects to be 60%. If project exceeds these thresholds, list efficiency measures proposed for this project.

RIGHT OF WAY

JOHN BALLANTYNE Initial:_____ Date: _____

PLANNING – (Confirm Consistency with Asset Management Plan, Local Transportation Plans (RTP & MTP), Comprehensive Multi-Modal Corridor Plan, etc.)

MARLON FLOURNOY Initial:_____ Date: _____

PROJECT DEVELOPMENT

KARL DREHER Initial:_____ Date: _____

ENVIRONMENTAL

CARLOS PORTILLO Initial:_____ Date: _____

CONSTRUCTION

ANDY ALVARADO Initial:_____ Date: _____

PROJECT MANAGEMENT

SUTHA SUTHAHAR Initial:_____ Date: _____

MAINTENANCE/OPERATIONS - (Confirm Consistency with Asset Management Plan etc.)

TOM BRANNON Initial: BA for T.B. Date: 8/9/19

ADMINISTRATION – Confirm if A & E or Service Contracts needed for PIO

SUSAN ELKINS Initial:_____ Date: _____

Submit three to four weeks prior to the milestone, receive comments **from Deputies one week prior to the milestone date.**

PID (PIR), DPR and PR Review

I have reviewed the 03-3H330 US 50 ICM Infrastructure Project Report and concur

with the Scope, Schedule and Cost (Support and Capital), as documented in Risk Management Plan.

The goal for support costs for Major Projects to be 32% and Minor Projects to be 60%. If project exceeds these thresholds, list efficiency measures proposed for this project.

RIGHT OF WAY

JOHN BALLANTYNE Initial:_____ Date: _____

PLANNING – (Confirm Consistency with Asset Management Plan, Local Transportation Plans (RTP & MTP), Comprehensive Multi-Modal Corridor Plan, etc.)

MARLON FLOURNOY Initial:_____ Date: _____

PROJECT DEVELOPMENT

KARL DREHER Initial:_____ Date: _____

ENVIRONMENTAL

CARLOS PORTILLO Initial:_____ Date: _____

CONSTRUCTION

ANDY ALVARADO Initial:_____ Date: _____

PROJECT MANAGEMENT

SUTHA SUTHAHAR Initial:_____ Date: _____

MAINTENANCE/OPERATIONS - (Confirm Consistency with Asset Management Plan etc.)

TOM BRANNON Initial:_____ Date: _____

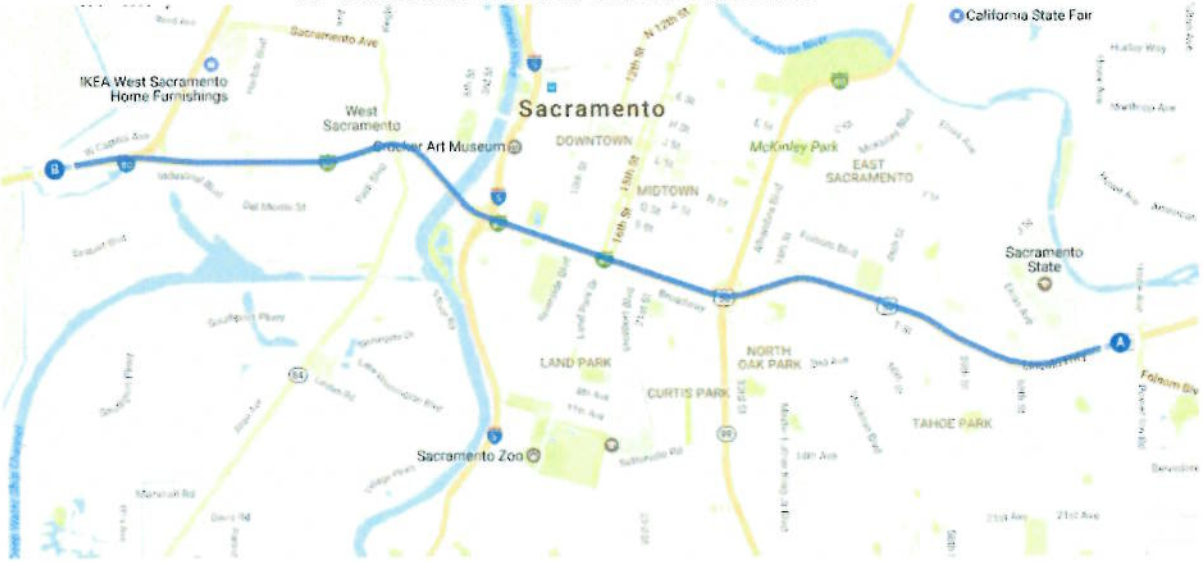
ADMINISTRATION – Confirm if A & E or Service Contracts needed for PIO Resources for PIO - Graphics ?

SUSAN ELKINS Initial: SE Date: 8-6-19

Submit three to four weeks prior to the milestone, receive comments **from Deputies one week prior to the milestone date**.

Vicinity Map

03-Yol 80 PM 9.2 to 03-Sac 50 PM R2.56



03-Sac 50 PM R2.56 to 03-Sac PM 17.50

ICM Project
03-VAR-80, 50-PM VAR - VAR
EFIS # 0317000325 (EA 03-3H330)

This project report has been prepared under the direction of 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.

Jonathan C Wing REGISTERED CIVIL ENGINEER

8-1-19
DATE

Table of Contents

1. INTRODUCTION

Project Description:

This project proposes to implement Integrated Corridor Management (ICM), also known as Connected Corridor, by installing Transportation Management System (TMS) and Intelligent Transportation Systems (ITS) elements at the following location:

- On Interstate 80 (I-80) from Enterprise Boulevard in the City of West Sacramento to Folsom Boulevard in the City of Folsom on HWY 50.

The project is described in two parts 1) Architectural Engineering (AE) or standard project development and 2) Software Development (SD).

1)The AE will include new and upgraded communications (fiber), vehicle detection, Changeable Message Signs (CMS), smaller Dynamic Message Signs (DMS), Ramp Meter Systems (RMS), CCTV Cameras, Gantries with DMS, Traffic Signal Cabinet upgrades, Vehicle to Infrastructure (V2I) and Automated Vehicle (AV) communication access points and Maintenance Vehicle Pullouts (MVP) will be added where required.

2)The SD will include the development of the new Computer Management System or Operator (GUI) (See purple box in fig 1.1 below) and provide for the configuration and integration of the department furnished Decision Support System (DSS). The new Operator GUI and DSS will interface with the Data Bus used to access regional field elements and the Data Hub used to store and access data. A common protocol must be used to communicate between traffic signal and detector systems or a translator must be developed to exchange incompatible information to leverage existing system assets. A new corridor-wide coordinated ramp metering system will be developed and deployed which will assist ICM performance when activated and improve the recurring congestion when ICM is not activated.

Implementing ICM in this corridor will help manage all transportation services in the corridor and improve its performance. This project is needed to provide timely information receipt and to distribute information to public and private entities through the internet and various other media.

The intent of the ICM project is to use a network of fiber optic cables and wireless communication links to transport real-time video and data from all field elements within the project limits to the District 3 Transportation Management Center (TMC). This will provide TMC with timely information to more efficiently manage traffic operations which will in turn help to reduce congestion and delay.

Project Limits	03-Yol-80-PM 9.2/R9.55, Yol-50-0.0/3.15, Sac-50-PM L0.0/17.5	
Number of Alternatives	2	
	Current Cost Estimate (x 1000):	**Escalated Cost Estimate (x 1000):**
Capital Outlay Support		$6,783
Capital Outlay Construction	$31,750	$34,200
Capital Outlay Right-of-Way	$115	$125
Funding Source	20.XX.201.315	
Funding Year	2020-2021	
Type of Facility	6-10 Lane Freeway	
Number of Structures	0	
SHOPP Project Output	122 Transportation Management Systems	
Anticipated Environmental Determination or Document	Categorical Exemption/Categorical Exclusion (CE/CE)	
Legal Description	In Yolo County and Sacramento County from Enterprise Blvd on Route 80 to Folsom Blvd on US50	
Project Development Category	5	

2. RECOMMENDATION

It is recommended that this Project Report be approved, and the project proceed to the PS&E phase using the estimate and schedule for the programmed alternative.

3. BACKGROUND

Caltrans District 3 has identified US 50 as a pilot corridor to implement ICM strategies due to the congestion the corridor faces daily. ICM is considered the most efficient and effective approach to improve corridor-level, multi-modal, multi-jurisdictional transportation system performance without increasing roadway capacity. ICM is not only the connecting of individual intelligent transportation systems (ITS) and transportation management systems (TMS), it also requires an institutional commitment to embrace a Transportation System Management and Operations (TSMO). The Decision Support System (DSS) will be scalable to allow connection of adjacent corridors which will eventually result in transportation system management at a regional level. Additionally, the US 50 corridor already contains many of the parallel facilities and ITS infrastructure required for ICM integration.

US 50 begins at the junction of I-80 and US 50 in West Sacramento and continues to beyond the Nevada state line. US 50 serves the large Sacramento metropolitan area through Placerville and is a vital transportation corridor for the economy of the Sacramento area communities in City of West Sacramento, Sacramento County, City of Sacramento, City of Rancho Cordova, and City of Folsom.

The purpose of this project to create an ICM system that not only connects to TMS, but also requires an institutional commitment to embrace TSMO to help improve the economy and mobility of the Sacramento region.

Multiple projects have been developed in the US 50 corridor to provide a fiber optic network to connect all the TMS elements. Although not included in the original scope of this work, this project intends to complete the fiber optic network by installing it in areas not completed by other projects. A Project Change Request (PCR) will be submitted October 2019 to update the project cost and scope for this purpose.
An ICM corridor consists of the following elements (see Figure 1.1):

- Fiber optic and wireless communication network
- TMS elements will communicate with each other and with motorists
- Software that connects the elements with Caltrans TMC and local agencies:
    - ConOps is an information exchange network that is used by the operators of transportation facilities and emergency responders in the Sacramento region. It enables the real-time sharing of data and live video pertaining to the operation of roadways and public transit, thereby assisting operations personnel in the coordination of their activities and in providing the public with comprehensive information about current travel conditions and options.
    - System Requirements is comprised of the physical fiber data sharing amongst partners and a software Graphical User Interface (GUI) that allows the regional operators to view, share and control some of the ITS elements.
    - Common Off the Shelf (COTS) hardware and software products are developing rapidly making it difficult to determine a solution.
    - SD portion will include the development of the new Information Exchange Network (IEN), Corridor Computer Management System, and Operator GUI. The SD will also provide for the configuration and integration of the department furnished DSS.

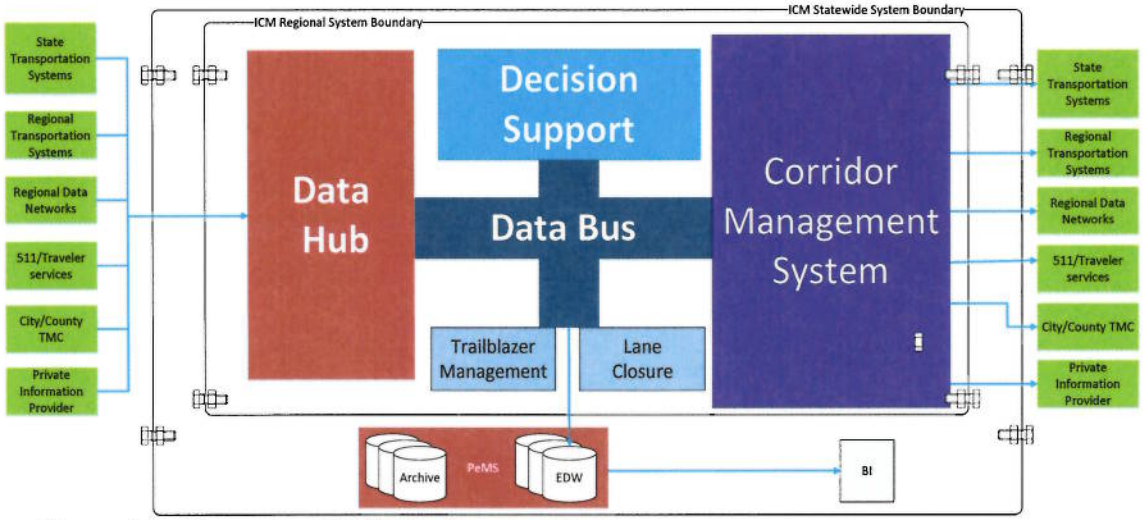


Figure 1.1: Example of ICM System Architecture

4. PURPOSE AND NEED

Purpose:
The purpose of this project is to improve the safety and reliability of the US-50 Corridor, enhance TMS, reduce daily vehicle hours of delay, improve incident response, maintain ITS element health, reduce primary and secondary collisions, more effectively coordinate traveler information, improve roadside safety, and reduce greenhouse gas emissions.

Need:
The US 50 Corridor consistently experiences the second highest number of collisions, collisions per mile, incidents, vehicle hours of delay, vehicle miles traveled (VMT), and VMT per mile in the district.

Current congestion management approaches on freeways and arterials are not able to make full use of all network capacity as they have little to no visibility of conditions at adjacent facilities. Information on incidents, events, and changes in demand on one facility that may impact conditions on another are not communicated even though this information may be critical in managing a response.
The regional partners realize that these gaps in coordination, visibility and communications have prevented the full potential of the existing ITS system. Higher degrees of institutional integration and ITS build-out are needed to take full advantage of the transportation infrastructure capacity along the US 50 corridor.

A. Problem, Deficiencies, Justification

Caltrans has a limited amount of Transportation Management System elements along the US 50 corridor. The new Transportation Management System elements are intended to provide better, more accurate, and timely information for travelers and operators to manage the system. The focus of this project will be along US 80 and US 50 because of the congestion generated by traffic.

B. Regional and System Planning

The Sacramento Area Council of Governments (SACOG) has been working with the regional partners on improving the operational, informational, and institutional gaps in current corridor operations since 2003. An MOU for participation in the Regional ITS Deployment Strategy was signed by thirteen regional partners in 2005. This led to the development of the Sacramento Transportation Area Network (STARNET).

C. Traffic

Traffic volumes on the highway for the project limits are presented in Table-1.

Table-1: Traffic Volumes (2016 Traffic Volumes on California State Highways)			
Location Description	**Type of Roadway**	**Peak-Hour, vph**	**AADT vpd**
03-Yol-50-PM 0.35 Junction Rte 80	Multi-lane Freeway	9,900	119,600
03-Sac-50-PM R3.674 Junction Rte 16	Multi-lane Freeway	17,000	189,000
03-Sac-50-PM 17.008 Folsom Blvd/Natoma	Multi-lane Freeway	8,600	94,000

Table 1: Traffic Volumes Within Project Limits

For Percent Truck Traffic, please refer to **Table-2** below.

Table-2: Truck Volumes (2016 Truck Volumes on California State Highways)		
Location Description	**Location**	**% Trucks**
03-Yol-50-PM 0.35	Junction Rte 80	7.4
03-Sac-50-PM R3.674	Junction Rte 16	2.5
03-Sac-50-PM 17.008	Folsom Blvd./Natoma	6.0

Traffic Collisions

Table-3: Table data for SAC-50 PM 5.30/17.799 (Dates:01/01/2016 – 12/31/2018)			
Total number of Collisions	**Injury**	**Fatal**	**Fatal + Injury**
1279	377	5	382

See (Attachment E) for full Accident Rate.

5. ALTERNATIVES

A. Preferred Alternatives

This includes completing the project with five gantries with a DMS per lane for speed harmonization, sixteen new Information Display Boards (IDB). Updating twenty-three existing Ramp Meters and installing one new one at South River Road, installing fifteen new CCTV cameras, updating eleven Traffic Detectors, and nine Traffic Signals and three TMS controller Cabinet (FO) upgrades. The current capital construction cost for this build alternative is $32.6 M.

B. Rejected Alternative – No Build

This alternative does not meet the purpose and need.

6. CONSIDERATIONS REQUIRING DISCUSSION

A. Value Analysis (VA)

A Value Analysis (VA) study will be conducted early in the PS&E phase to enhance the Concept of Operations (ConOps) and System Requirements that will be used to develop the Scope of Work for the Software Development portion of the project. This will be evaluated during the PS&E phase and may need to be split out to a separate contract for a Division of Procurement and Contracts (DPAC) IT service contract. Current technology and Common Off the Shelf (COTS) will also be evaluated and an Integrated Corridor Management system solution will be chosen. The Software Development will begin during PS&E and designed, implemented, and tested during construction.

B. Hazardous Waste

Surplus material generated by the project will become the property of the Contractor. All materials shall be handled and disposed of in accordance with local, state, and federal laws and regulations. If a site for material and/or disposal is needed, the contractor will be responsible for providing a disposal site.

C. Resource Conservation

This project will seek to conserve energy and nonrenewable resources where practical.

D. Right of Way Issues

This project is not anticipated to require any right of way acquisition. All the proposed work is within Caltrans right of way. (See Attachment G)

E. Environmental Compliance

The Environmental Document for this project is a Categorical Exemption per California Environmental Quality Act and a Categorical Exclusion per National Environmental Policy Act (CE/CE). Environmental permits are not anticipated. (See Attachment C)

F. Air Quality Conformity

This project is exempted from all air quality analysis per Table 2 of 40 of the Code of

Federal Regulations (CFR) §93.126 (subsection Safety). Conformity requirements do not apply.

G. Title VI Considerations

This project complies with Title VI requirements.

H. Noise Abatement Decision Report

Not Applicable to this project as there is no change to the horizontal or vertical alignment, change to the highway capacity or prediction for an increase in traffic volume because of this project in accordance with Title 23, CFR, Part 772 of the Federal Highway Administration (FHWA) standards (23 CFR 772).

7. OTHER CONSIDERATIONS

A. Hydraulics

There are no changes expected to the hydraulic flow. Therefore, a Hydraulic Exemption was issued for the project. (see Attachment J)

B. Utilities

Existing Utilities are identified and there are no utility conflicts on this project.

C. Landscape

There are no landscape elements currently in place within the work area.

D. Traffic Signals

All on-ramps with High Occupancy Vehicle (HOV) bypass lanes within the scope of this project that are not currently signalized will be signalized.

E. Railroads

Railroad involvement is not anticipated.

F. Pedestrian Facilities

Pedestrian facilities within the project limits will not be affected.

G. Bicycle Facilities

Bicycle facilities within the limits will not be affected.

H. Transportation Management Plan

The Traffic Management Plan (TMP) Data Sheet was completed on February 21, 2019. The TMP recommends $2,500 per working day for traffic control systems and $1,500 for Construction Zone Enhanced Enforcement Program (COZEEP) per working day and $3000 per working night. Lane closure charts will be developed prior to P&E. The TMP data sheet is included as Attachment D.

8. FUNDING/PROGRAMMING AND ESTIMATE

It has been determined that this project is eligible for Federal-aid funding.
This project is programmed in the 2018 SHOPP under the Transportation Management Systems Program (201.315). Delivery of the project will be in the 20/21 Fiscal Year (FY).

Fund Source	Fiscal Year Estimate								
20.XX.201.315	Prior	19/20	20/21	21/22	22/23	23/24	Future	Total	Programmed Amount
Component	In thousands of dollars ($1,000)								
PA&ED Support	$629	$353						$982	$940
PS&E Support		$1,918	$636					$2554	$2700
Right-of-Way Support		$32	$22	$18	$18	$18	$20	$128	$520
Construction Support			$251	$1,088	$1,110	$581	$89	$3,119	$3,900
Total Support	$629	$2,303	$909	$1,106	$1,128	$599	$109	$6,783	$8,060
Right-of-Way			$115					$115	$200
Construction			$31,750					$31,750	$38,400
Total								$38,648	$46,660

The support cost ratio is 20.72%
See Programming Sheet, Attachment K, for more information.
For Estimates see Attachment B for more information.

9. DELIVERY SCHEDULE

Project Milestones		Milestone Date (Month/Day/Year)	Milestone Designation (Target/Actual)
APPROVE PID	M010	06/30/2017	A
PROGRAM PROJECT	M015	03/22/2018	A
BEGIN ENVIRONMENTAL	M020	11/28/2018	A
PA & ED	M200	8/13/2019	T
DESIGN SAFETY REVIEW	M300	06/05/2020	T
PS&E TO DOE	M377	08/07/2020	T
RIGHT OF WAY CERTIFICATION	M410	09/16/2020	T
READY TO LIST	M460	10/15/2020	T
FUND ALLOCATION	M470	12/03/2020	T
HEADQUARTERS ADVERTISE	M480	01/04/2021	T
AWARD	M495	03/05/2021	T
APPROVE CONTRACT	M500	04/05/2021	T
CONTRACT ACCEPTANCE	M600	12/01/2023	T
END PROJECT	M800	1.30.2026	T

10. RISKS

Risks identified during PID Phase will be carried on to PS&E Phase as follows:

- Potential High Risks exists due to PG&E bankruptcy and AT&T's massive layoffs to their response time to the potential conflicts with our design plans.
- Because of Increasing Tariffs on Aluminum and Steel, there is a potential High Risk to increases in total project cost.
- There is potential Low Risk that old existing pull boxes and conduits need replacement and that may lead to additional costs as the project design moves forward.
- Any late changes in electrical design will greatly affect the Utility Cert and may delay schedule.

A risk register was completed for this project (see Attachment L).

11. EXTERNAL AGENCY COORDINATION

Federal Highway Administration (FHWA)
This project is an Assigned Project in accordance with the current Federal Highway Administration (FHWA) and Department of Transportation (Caltrans) Joint Stewardship and Oversight Agreement.

12. PROJECT PERSONNEL

Name	Title	Phone #
Brian Alconcel	D3 Program Advisor	530-741-5718
Leobardo Morales	M-15 Design Branch Chief	916-227-8005
Dean Campbell	Chief, Electrical Systems Branch	916-859-7960
Jim Rogers	Project Manager	916-826-6052
Gurdeep Sidhu	TMC's TOS Coordinator	916-859-7936
Jonathan C Wing	PE (Civil)	916-227-8164
Jeff Juarez	Landscape Architecture	530-741-5354
Isam Tabshouri	Chief, Regional TMC	916-859-7979
Wendy Ratajczak	RW Project Coordinator	530-741-5136
Kelly McNally	Environmental Branch Chief	530-741-4134
Mohsen Samadzadeh	Design (Civil)	916-227-8413
Rostam Gharaee Kermani	PE (Electrical)	530-634-7690
Masum A. Patwary	Environmental Coordinator	530-741-4588
Armando Cruz	Storm Water Specialist	530-741-5442
Jim Ferreira	TMP Coordinator	916-858-8633
Najed Dakak	NR Utility Engineering Coordinator	530-741-4225
Arik Jenkins	D3 Electrical Maintenance	916-322-9608
Nathan J. Dekens	Electrical Design	530-741-5171

13. ATTACHMENT

Attachment A – Location Map
Attachment B – Cost Estimate
Attachment C – Environmental Approval/Document
Attachment D – TMP Data Sheet/Checklist
Attachment E – Accident Rate Table B
Attachment F – Micro Stormwater Data Report
Attachment G – Right of Way Data Sheet
Attachment H – Hazardous Waste Initial Site Assessments
Attachment I – Landscape Architect Assessment Sheet
Attachment J – Hydraulic Exemption
Attachment K – Programming Sheet
Attachment L – Risk Registry

ATTACHMENT A

LOCATION MAPS

INDEX OF PLANS

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	VAR	50	VAR/VAR		

STATE OF CALIFORNIA

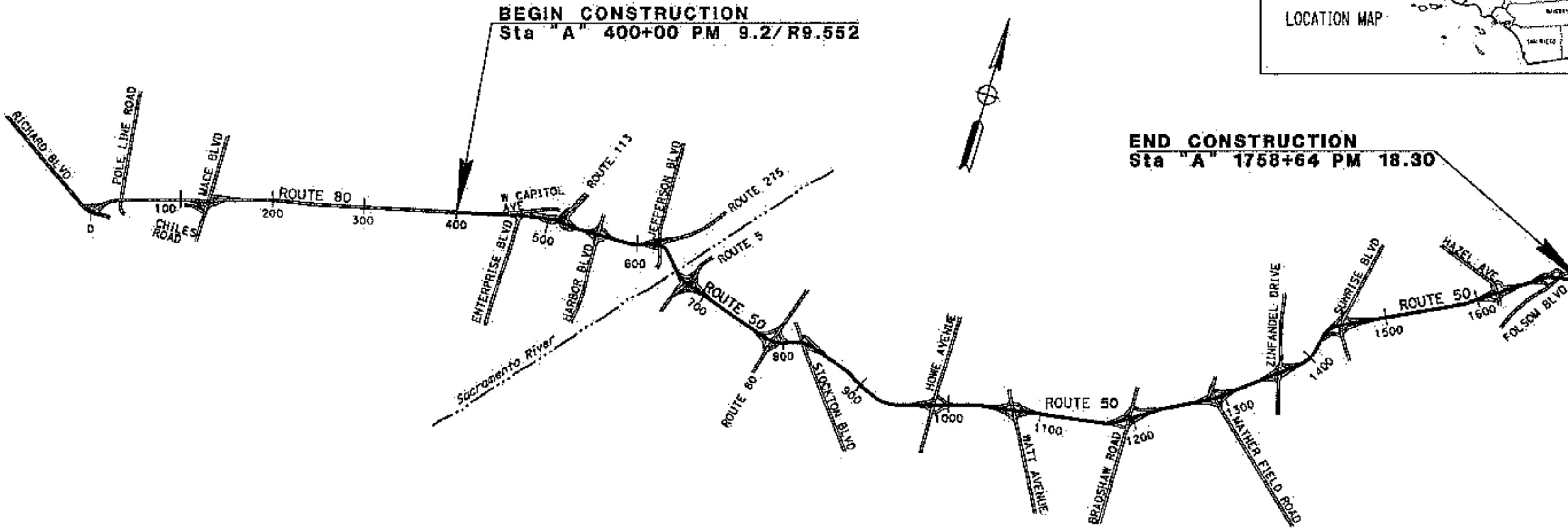
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN YOLO COUNTY AND SACRAMENTO COUNTY FROM RICHARD BLVD ON ROUTE 80 TO FOLSOM BLVD ON US-50

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2015



NO SCALE

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

PROJECT ENGINEER / REGISTERED CIVIL ENGINEER — DATE

REGISTERED PROFESSIONAL ENGINEER — JONATHAN C. YING — No. C81054 — Exp. 9/30/19 — CIVIL — STATE OF CALIFORNIA

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.	03-3H3304
PROJECT ID	0317000325

DESIGN ENGINEER	PROJECT MANAGER
LEOBARDO MORALES	PERI CLARK

DATE PLOTTED => 26-APR-2019
TIME PLOTTED => 14:18
12-11-18

BORDER LAST REVISED 7/2/2010 | CALTRANS WEB SITE IS: HTTP://WWW.DOT.CA.GOV/ | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => | DGN FILE => | UNIT 0325 | PROJECT NUMBER & PHASE 03170003251

ATTACHMENT B

COST ESTIMATE

PROJECT

PLANNING COST ESTIMATE

EA: 03-3H330

EA: 03-3H330 PA&ED: 317000325

PA&ED: 317000325

District-County-Route: 03-SAC-50-VAR-V

PM: 00.0 - 17.8

Type of Estimate : ELECTRICAL

Program Code :

Project Limits : 03-SAC-50-PM VAR-VAR

Project Description: HWY 50 ICM PROJECT

Scope : TMS UPGRADE IN SACRAMENTO

Alternative : 1 OF 1

SUMMARY OF PROJECT COST ESTIMATE

	Current Year Cost	Escalated Cost
TOTAL ROADWAY COST	31,601,300.00	34,045,908.78
TOTAL STRUCTURES COST	$ -	$ -
SUBTOTAL CONSTRUCTION COST	31,601,300.00	34,045,908.78
TOTAL RIGHT OF WAY COST	115,000.00	125,000.00
TOTAL CAPITAL OUTLAY COSTS	**31,717,000.00**	**34,171,000.00**
PR/ED SUPPORT	$ 982	$ 982
PS&E SUPPORT	$ 2,554	$ 2,554
RIGHT OF WAY SUPPORT	$ 128	$ 128
CONSTRUCTION SUPPORT	$ 3,119	$ 3,119
TOTAL SUPPORT COST	**$ 6,783**	**$ 6,783**
TOTAL PROJECT COST	**$31,750,000.00**	**$34,200,000.00**

If Project has been programmed enter Programmed Amount

	Month	/	Year
Date of Estimate (Month/Year)	1	/	2017
Estimated Construction Start (Month/Year)	1	/	2018
Number of Working Days =	783		
Estimated Mid-Point of Construction (Month/Year)	6	/	2019
Estimated Construction End (Month/Year)	12	/	2020
Number of Plant Establishment Days	261		

Estimated Project Schedule

PID Approval	June-17
PA/ED Approval	May-19
PS&E	August-20
RTL	October-20
Begin Construction	April-21

Reviewed by District O.E. or Cost Estimate Certifier

Office Engineer / Cost Estimate Certifier	xx/xx/xxxx	(xxx) xxx-xxxx
	Date	Phone

Approved by Project Manager

Project Manager	xx/xx/xxxx	(xxx) xxx-xxxx
	Date	Phone

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	Earthwork	$	10,000
2	Pavement Structural Section	$	2,140,000
3	Drainage	$	-
4	Specialty Items	$	-
5	Environmental	$	893,900
6	Traffic Items	$	16,530,000
7	Detours	$	-
8	Minor Items	$	1,992,300
9	Roadway Mobilization	$	2,191,500
10	Supplemental Work	$	1,220,900
11	State Furnished	$	1,526,600.00
12	Time-Related Overhead	$	2,191,500.00
13	Roadway Contingency	$	2,904,600.00
	TOTAL ROADWAY ITEMS	**$**	**31,601,300**

Estimate Prepared By :

Name and Title | Date | Phone

Estimate Reviewed By :

Name and Title | Date | Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)		Cost
190101	Roadway Excavation	CY		x		= $	-
19010X	Roadway Excavation (Type X) ADL	CY		x		= $	-
194001	Ditch Excavation	CY		x		= $	-
19801X	Imported Borrow	CY/TON		x		= $	-
192037	Structure Excavation (Retaining Wall)	CY		x		= $	-
193013	Structure Backfill (Retaining Wall)	CY		x		= $	-
193031	Pervious Backfill Material (Retaining Wall)	CY		x		= $	-
16010X	Clearing & Grubbing	LS/ACRE	1	x	10,000.00	= $	10,000
170101	Develop Water Supply	LS		x		= $	-
19801X	Imported Borrow	CY/TON		x		= $	-
210130	Duff	ACRE		x		= $	-
XXXXXX	Some Item	Unit					

TOTAL EARTHWORK SECTION ITEMS	$	10,000

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)		Cost
401050	Jointed Plain Concrete Pavement	CY		x		= $	-
400050	Continuously Reinforced Concrete Pavement	CY		x		= $	-
404092	Seal Pavement Joint	LF		x		= $	-
404093	Seal Isolation Joint	LF		x		= $	-
413117	Seal Concrete Pavement Joint (Silicone)	LF		x		= $	-
413118	Seal Pavement Joint (Asphalt Rubber)	LF		x		= $	-
280010	Rapid Strength Concrete Base	CY		x		= $	-
410095	Dowel Bar (Drill and Bond)	EA		x		= $	-
390132	Hot Mix Asphalt (Type A)	TON	2,100	x	660.00	= $	1,386,000
390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON		x		= $	-
39300X	Geosynthetic Pavement Interlayer (Type X)	SQYD		x		= $	-
26020X	Class 2 Aggregate Base	TON/CY	2,900	x	260.00	= $	754,000
290201	Asphalt Treated Permeable Base	CY		x		= $	-
250401	Class 4 Aggregate Subbase	CY		x		= $	-
374002	Asphaltic Emulsion (Fog Seal Coat)	TON		x		= $	-
397005	Tack Coat	TON		x		= $	-
377501	Slurry Seal	TON		x		= $	-
3750XX	Screenings (Type XX)	TON		x		= $	-
374492	Asphaltic Emulsion (Polymer Modified)	TON		x		= $	-
370001	Sand Cover (Seal)	TON		x		= $	-
731530	Minor Concrete (Textured Paving)	CY		x		= $	-
731502	Minor Concrete (Miscellaneous Construction)	CY		x		= $	-
39407X	Place Hot Mix Asphalt Dike (Type X)	LF		x		= $	-
150771	Remove Asphalt Concrete Dike	LF		x		= $	-
420201	Grind Existing Concrete Pavement	SQYD		x		= $	-
150860	Remove Base and Surfacing	CY		x		= $	-
390095	Replace Asphalt Concrete Surfacing	CY		x		= $	-
15312X	Remove Concrete	LF/CY/LS		x		= $	-
394090	Place Hot Mix Asphalt (Miscellaneous Area)	SQYD		x		= $	-
153103	Cold Plane Asphalt Concrete Pavement	SQYD		x		= $	-
39405X	Shoulder Rumble Strip (HMA, X-In Indentations)	STA		x		= $	-
413113	Repair Spalled Joints, Polyester Grout	SQYD		x		= $	-
420102	Groove Existing Concrete Pavement	SQYD		x		= $	-
390136	Minor Hot Mix Asphalt	TON		x		= $	-
394095	Roadside Paving (Miscellaneous Areas)	SQYD		x		= $	-
XXXXXX	Some Item	Unit		x		= $	-

TOTAL PAVEMENT STRUCTURAL SECTION ITEMS	$	2,140,000

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
15080X	Remove Culvert	EA/LF		x		=	$	-
150820	Modify Inlet	EA		x		=	$	-
155232	Sand Backfill	CY		x		=	$	-
15020X	Abandon Culvert	EA/LF		x		=	$	-
152430	Adjust Inlet	LF		x		=	$	-
155003	Cap Inlet	EA		x		=	$	-
510501	Minor Concrete	CY		x		=	$	-
510502	Minor Concrete (Minor Structure)	CY		x		=	$	-
5105XX	Minor Concrete (Type XX)	CY		x		=	$	-
620XXX	XX" Alternative Pipe Culvert (Type X)	LF		x		=	$	-
6411XX	XX" Plastic Pipe	LF		x		=	$	-
65XXXX	XX" Reinforced Concrete Pipe (Type X)	LF		x		=	$	-
6650XX	XX" Corrugated Steel Pipe (0.XXX" Thick)	LF		x		=	$	-
68XXXX	XX" Plastic Pipe (Edge Drain)	LF		x		=	$	-
69011X	XX" Corrugated Steel Pipe Downdrain (0.XXX" Thic	LF		x		=	$	-
70321X	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick)	LF		x		=	$	-
70XXXX	XX" Corrugated Steel Pipe Riser (0.XXX" Thick)	LF		x		=	$	-
7050XX	XX" Steel Flared End Section	EA		x		=	$	-
703233	Grated Line Drain	LF		x		=	$	-
72XXXX	Rock Slope Protection (Type and Method)	CY/TON		x		=	$	-
72901X	Rock Slope Protection Fabric (Class X)	SQYD		x		=	$	-
721420	Concrete (Ditch Lining)	CY		x		=	$	-
721430	Concrete (Channel Lining)	CY		x		=	$	-
750001	Miscellaneous Iron and Steel	LB		x		=	$	-
XXXXXX	Additional Drainage	LS		x		=	$	-

TOTAL DRAINAGE ITEMS	$	-

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost
080050	Progress Schedule (Critical Path Method)	LS		x		=	$	-
582001	Sound Wall (Masonry Block)	SQFT		x		=	$	-
510530	Minor Concrete (Wall)	CY		x		=	$	-
15325X	Remove Sound Wall	LF/LS		x		=	$	-
070030	Lead Compliance Plan	LS	1	x	5,000.00	=	$	5,000
141120	Treated Wood Waste	TN	7	x	90.00	=	$	630
153221	Remove Concrete Barrier	LF		x		=	$	-
150662	Remove Metal Beam Guard Railing	LF	2,300	x	6.00	=	$	13,800
150668	Remove Flared End Section	EA		x		=	$	-
8000XX	Chain Link Fence (Type XX)	LF		x		=	$	-
80XXXX	XX" Chain Link Gate (Type CL-6)	EA		x		=	$	-
832005	Midwest Guardrail System	LF	5,500	x	40.00	=	$	220,000
839301	Single Thrie Beam Barrier	LF		x		=	$	-
839310	Double Thrie Beam Barrier	LF		x		=	$	-
839521	Cable Railing	LF		x		=	$	-
8395XX	Terminal System (Type CAT)	EA		x		=	$	-
839585	Alternative Flared Terminal System	EA		x		=	$	-
839584	Alternative In-line Terminal System	EA	26	x	3,320.00	=	$	86,320
4906XX	CIDH Concrete Piling (Insert Diameter)	LF		x		=	$	-
839XXX	Crash Cushion (Insert Type)	EA		x		=	$	-
83XXXX	Concrete Barrier (Insert Type)	LF		x		=	$	-
520103	Bar Reinforced Steel (Retaining Wall)	LB		x		=	$	-
510060	Structural Concrete, Retaining Wall	CY		x		=	$	-
513553	Retaining Wall (Masonry Wall)	SQFT		x		=	$	-
511035	Architectural Treatment	SQFT		x		=	$	-
598001	Anti-Graffiti Coating	SQFT		x		=	$	-
203070	Rock Stain	SQFT		x		=	$	-
5136XX	Reinforced Concrete Crib Wall (Type X)	SQFT		x		=	$	-
83954X	Transition Railing (Type X)	EA		x		=	$	-
597601	Prepare and Stain Concrete	SQFT		x		=	$	-
839561	Rail Tensioning Assembly	EA		x		=	$	-
83958X	End Anchor Assembly (Type X)	EA	23	x	993.00	=	$	22,839
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL SPECIALTY ITEMS	$	348,600

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)		Cost	
	Biological Mitigation	LS		x		= $	-	
130670	Temporary Reinforced Silt Fence	LF		x		= $	-	
141000	Temporary Fence (Type ESA)	LF		x		= $	-	
						Subtotal Environmental Mitigation	$	-

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)		Cost	
20XXXX	Highway Planting	LS		x		= $	-	
20XXXX	Irrigation System	LS		x		= $	-	
204099	Plant Establishment Work	LS		x		= $	-	
204101	Extend Plant Establishment Work	LS		x		= $	-	
20XXXX	Follow-up Landscape Project	LS		x		= $	-	
150685	Remove Irrigation Facility	LS		x		= $	-	
20XXXX	Maintain Existing (Irrigation or Planted Areas)	LS		x		= $	-	
206400	Check and Test Existing Irrigation Facilities	LS		x		= $	-	
21011X	Imported Topsoil (X)	CY/TON		x		= $	-	
20XXXX	Rock Blanket, Rock Mulch, DG, Gravel Mulch	SQFT/SQYD		x		= $	-	
200122	Weed Germination	SQYD		x		= $	-	
208304	Water Meter	EA		x		= $	-	
2087XX	XX" Conduit (Use for Irrigation x-overs)	LF		x		= $	-	
20890X	Extend X" Conduit (Use for Extension of Irrigation x-overs)	LF		x		= $	-	
						Subtotal Landscape and Irrigation	$	-

5C - EROSION CONTROL

Item code		Unit	Quantity		Unit Price ($)		Cost	
210010	Move In/Move Out (Erosion Control)	EA	$ 5	x	1017	= $	5,085	
210350	Fiber Rolls	LF	$ 1,500	x	5.85	= $	8,775	
210360	Compost Sock	LF		x		= $	-	
2102XX	Rolled Erosion Control Product (X)	SQFT		x		= $	-	
21025X	Bonded Fiber Matrix	SQFT/ACRE		x		= $	-	
210300	Hydromulch	SQFT		x		= $	-	
210420	Straw	SQFT		x		= $	-	
210430	Hydroseed	SQFT		x		= $	-	
210600	Compost	SQFT		x		= $	-	
210630	Incorporate Materials	SQFT		x		= $	-	
						Subtotal Erosion Control	$	13,860

5D - NPDES

Item code		Unit	Quantity		Unit Price ($)		Cost	
130300	Prepare SWPPP	LS		x		= $	-	
130200	Prepare WPCP	LS	0	x	2,600.00	= $	-	
130100	Job Site Management	LS		x		= $	-	
130330	Storm Water Annual Report	EA		x		= $	-	
130310	Rain Event Action Plan (REAP)	EA		x		= $	-	
130320	Storm Water Sampling and Analysis Day	EA		x		= $	-	
130520	Temporary Hydraulic Mulch	SQYD		x		= $	-	
130550	Temporary Hydroseed	SQYD		x		= $	-	
130505	Move-In/Move-Out (Temporary Erosion Control)	EA		x		= $	-	
130640	Temporary Fiber Roll	LF	0	x	4.50	= $	-	
130900	Temporary Concrete Washout	LS	0	x	5,000.00	= $	-	
130710	Temporary Construction Entrance	EA	0	x	4,000.00	= $	-	
130610	Temporary Check Dam	LF		x		= $	-	
130620	Temporary Drainage Inlet Protection	EA		x		= $	-	
130730	Street Sweeping	LS	0	x	20,000.00	= $	-	
	Total SWDR for PAED (2.75% of Proj Cost)	LS	1	x	880,000.00	= $	880,000	
						Subtotal NPDES	$	880,000

	TOTAL ENVIRONMENTAL	$	893,900

Supplemental Work for NPDES

066595	Water Pollution Control Maintenance Sharing*	LS		x		= $	-	
066596	Additional Water Pollution Control**	LS	0	x	3,000.00	= $	-	
066597	Storm Water Sampling and Analysis***	LS		x		= $	-	
XXXXXX	Some Item	LS		x		= $	-	
						Subtotal Supplemental Work for NDPS	$	-

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
860460	Lighting and Sign Illumination	LS	0	x		=	$	-
860201	Signal and Lighting	LS	12	x	100,000.00	=	$	1,200,000
860990	Closed Circuit Television System	LS	15	x	150,000.00	=	$	2,250,000
86110X	Ramp Metering System (Location X)	LS	25	x	110,000.00	=	$	2,750,000
86070X	Interconnection Conduit and Cable	LF/LS		x		=	$	-
5602XX	Furnish Sign Structure (Type DMS/GANTRY)	LS		x	500,000.00	=	$	-
5602XX	Install Sign Structure (Type DMS/OFFRAMP)	LS	16	x	350,000.00	=	$	5,600,000
498040	XX" CIDHC Pile (Sign Foundation)	LS		x		=	$	-
86080X	Inductive Loop Detectors	EA	11	x	50,000.00	=	$	550,000
8609XX	Traffic Monitoring Station (Type X)	LS		x		=	$	-
15075X	Remove Sign Structure	EA		x	20,000.00	=	$	-
151581	Reconstruct Sign Structure	EA		x		=	$	-
86XXXX	New Fiber Optics System(Sunrise to Folsom)	EA		x	6,500,000.00	=	$	-
860090	Maintain Existing Traffic Management System Elen	LS		x		=	$	-
86XXXX	Fiber Optic Conduit System	LS	17	x	5,000.00	=	$	85,000
XXXXX	DSL/CELLULAR	LS	19	x	5,000.00	=	$	95,000
	ICM MAIN SOFTWARE	LS	1		3,500,000.00		$	3,500,000
							Subtotal Traffic Electrical	$ 16,030,000

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
566011	Roadside Sign - One Post	EA		x		=	$	-
566012	Roadside Sign - Two Post	EA		x		=	$	-
5602XX	Furnish Sign	SQFT		x		=	$	-
568016	Install Sign Panel on Existing Frame	SQFT		x		=	$	-
150711	Remove Painted Traffic Stripe	LF		x		=	$	-
141101	Remove Yellow Painted Traffic Stripe (Hazardous Waste)	LF		x		=	$	-
150712	Remove Painted Pavement Marking	SQFT		x		=	$	-
150742	Remove Roadside Sign	EA		x		=	$	-
152320	Reset Roadside Sign	EA		x		=	$	-
152390	Relocate Roadside Sign	EA		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
840502	Thermoplastic Traffic Stripe (Enhanced Wet Night '	LF		x		=	$	-
846012	Thermoplastic Crosswalk and Pavement Marking (I	SQFT		x		=	$	-
120090	Construction Area Signs	LS		x		=	$	-
84XXXX	Permanent Pavement Delineation	LS		x		=	$	-
							Subtotal Traffic Signing and Striping	$ -

6C - Traffic Management Plan

Item code		Unit	Quantity		Unit Price ($)			Cost
128652	Portable Changeable Message Signs	EA/LS		x		=	$	-
							Subtotal Traffic Management Plan	$ -

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
120199	Traffic Plastic Drum	EA		x		=	$	-
12016X	Channelizer (Type X)	EA		x		=	$	-
120120	Type III Barricade	EA		x		=	$	-
129100	Temporary Crash Cushion Module	EA		x		=	$	-
120100	Traffic Control System	LS	200	x	2,500.00	=	$	500,000
129110	Temporary Crash Cushion	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-
							Subtotal Stage Construction and Traffic Handling	$ 500,000

TOTAL TRAFFIC ITEMS	**$**	**16,530,000**

SECTION 7: DETOURS

Includes constructing, maintaining, and removal

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON		x		=	$	-
26020X	Class 2 Aggregate Base	TON/CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
130620	Temporary Drainage Inlet Protection	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
128601	Temporary Signal System	LS		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
80010X	Temporary Fence (Type X)	LF		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL DETOURS	$	-

SUBTOTAL SECTIONS 1 through 7	$	19,922,500

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items						
ADA Items			1.0%	$	199,225	
8B - Bike Path Items						
Bike Path Items			1.0%	$	199,225	
8C - Other Minor Items						
Other Minor Items			8.0%	$	1,593,800	
Total of Section 1-7	$	19,922,500	x 10.0%	= $	1,992,250	

TOTAL MINOR ITEMS	$	1,992,300

SECTIONS 9: MOBILIZATION

Item code							
999990	Total Section 1-8	$	21,914,800	x 10%	= $	2,191,480	

TOTAL MOBILIZATION	$	2,191,500

SECTION 10: SUPPLEMENTAL WORK

Item code		Unit	Quantity		Unit Price ($)			Cost
066670	Payment Adjustments For Price Index Fluctuations	LS	1	x	3,000.00	=	$	3,000
066094	Value Analysis	LS		x		=	$	-
066070	Maintain Traffic	LS	200	x	600.00	=	$	120,000
066919	Dispute Resolution Board	LS	1	x	7,500.00	=	$	7,500
066921	Dispute Resolution Advisor	LS	1	x	5,000.00	=	$	5,000
066015	Federal Trainee Program	LS	1	x	8,800.00	=	$	8,800
066610	Partnering	LS		x		=	$	-
066204	Remove Rock and Debris	LS		x		=	$	-
066871	Electrical Service Connections	LS	20	x	10,000.00		$	200,000
066222	Locate Existing Crossover	LS		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-
	*Cost of **NPDES** Supplemental Work specified in Section 5D*					=	$	-
	Total Section 1-8	$	21,914,800		4%	=	$	876,592

TOTAL SUPPLEMENTAL WORK	$	1,220,900

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code			Unit					Cost
066105	Resident Engineers Office		1		50,000	50,000.00	=	$ -
	- Construction Cost Estimate	$	-					
	- Estimated Working Days		-					
	- Plant Establishment Period		-					
*	- Initial Office Setup (IOS)	$	-	$	5,000			

Item code		Unit	Quantity		Unit Price ($)		Cost
066063	Traffic Management Plan - Public Information	WD	200	x	2,500.00	=	$500,000
066901	Water Expenses	LS		x		=	$0
8609XX	Traffic Monitoring Station (X)	LS		x		=	$0
066841	Traffic Controller Assembly	LS		x		=	$0
066840	Traffic Signal Controller Assembly	LS		x		=	$0
066062	COZEEP Contract	WD	50	x	3,000.00	=	$150,000
066838	Reflective Numbers and Edge Sealer	LS		x		=	$0
066065	Tow Truck Service Patrol	LS		x		=	$0
066916	Annual Construction General Permit Fee	LS		x		=	$0
XXXXXX	Some Item	Unit		x		=	$0
	Total Section 1-8		$ 21,914,800		4%	=	$ 876,592

* Minimum $5K on every project

TOTAL STATE FURNISHED	$1,526,600

SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization $21,914,800 (used to calculate TRO)
Total Construction Cost (excluding TRO and Contingency) $26,853,800 (used to check if project is greater than $5 million excluding contingency)

Estiamted Time-Releated Overhead (TRO) Percentage (0% to 10%) = **10%**

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	783	X	$2,799	=	$2,191,500

TOTAL TIME-RELATED OVERHEAD	$2,191,500

Note: If the building portion of the project is greater than 50% of the total project cost, then TRO is not included.

SECTION 13: ROADWAY CONTINGENCY

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Total Section 1-12	$	29,045,300	x	10%	=	$2,904,530

TOTAL CONTINGENCY	$2,904,600

II. STRUCTURE ITEMS

DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$0		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$100		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

TOTAL COST OF BRIDGES		**$0**
TOTAL COST OF BUILDINGS		**$0**
Structures Mobilization Percentage	10%	**$0**

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Structures Contingency Percentage	10%	**$0**
TOTAL COST OF STRUCTURES		**$0**

Estimate Prepared By: _____ _____

XXXXXXXXXXXXXXXX ----- Division of Structures — Date

EA: 03-3H330 PA&ED: 317000325

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, Including Excess Land Purchases, Damages & Goodwill, Fees	$	0
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	105,000
C)	C1)	Utility Relocation (State Share)	$	$10,000
	C2)	Potholing (Design Phase)	$	0
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0%	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	10,000.00

L)	TOTAL RIGHT OF WAY ESTIMATE	$115,000.00
M)	TOTAL R/W ESTIMATE: Escalated	$125,000.00
N)	RIGHT OF WAY SUPPORT	$128

Support Cost Estimate Prepared By	JANEL D. WILSON Project Coordinator[1]	Phone
Utility Estimate Prepared By	Utility Coordinator[2]	Phone
R/W Acquisition Estimate Prepared By	JANEL D. WILSON Right of Way Estimator[3]	Phone

Note: Items G & H applied to items A + B

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

ATTACHMENT C

ENVIROMENTAL APPROVAL/DOCUMENT

Notice of Exemption

Appendix E

To: Office of Planning and Research
P.O. Box 3044, Room 113
Sacramento, CA 95812-3044

County Clerk
County of: SAC

From: (Public Agency) Caltrans, Dist. 03
730 B Street
Marysville CA 95901

Project Title: US 50 ICM Infrastructure

Project Applicant: California Department of Transportation

Project Location - Specific:
Interstate (I) 80 and U.S. Route (US) 50, from approximately 4.4 miles east of Mace Road (I-80 Yolo County) to approximately 1 mile west of Prairie City Road US-50 Sacramento County.

Project Location - City: VAR Project Location - County: VAR

Description of Nature, Purpose and Beneficiaries of Project:
This project proposes to implement Integrated Corridor Management (ICM) along US-50 from West Sacramento to the Eastern Sacramento City limit and from the Eastern Sacramento City limit east to Folsom Blvd in the City of Folsom. The project will include new and upgraded communications, vehicle detection, changeable message signs, smaller dynamic message signs (DMS), ramp meter systems, cameras, gantries with DMS, traffic signals, Vehicle to Infrastructure and Automated Vehicle communication access points, and maintenance vehicle pullouts will be added where required. The project will enhance safety and mobility for motorists through optimizing operations of the existing transportation

Name of Public Agency Approving Project: California Department of Transportation

Name of Person or Agency Carrying Out Project: California Department of Transportation

Exempt Status: **(check one):**

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☒ Categorical Exemption. State type and section number: Class 1, PRC 21084 Title 14 CCR, Section 15301 (b)
- ☐ Statutory Exemption. State code number:

Reason why project is exempt:

Lead Agency
Contact Person: Masum A Patwary Area Code/Telephone/Extension: (530)-751-4588

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project? ☒ YES ☐ NO

Signature: _____ Date: _____ Title: Associate Environmental Planner

☒ Signed by Lead Agency ☐ Signed by Applicant

Authority cited: Sections 21083 and 21110, Public Resources Code.
Reference: Sections 21108, 21152, and 21152.1, Public Resources Cc

Date Received for filing at OPR _____

ATTACHMENT D

TMP Data Sheets/Checklist

Memorandum

Serious drought.
Help Save Water!

To: Jonathan C. Wing
Project Engineer
D3 – NR Design Branch M14

Date: February 21, 2019

File: 03-3H3300
03-Yol-50-0.0/3.1
03-Sac-50-L0.0/18.3
Corridor Management

From: Jim Ferreira
TMP Coordinator
D3 – Transportation Management Planning Office

Subject: **Transportation Management Plan (TMP) Data Sheet**

Description

The project proposes to implement Integrated Corridor Management (ICM) along route 50 in Yolo and Sacramento Counties from Enterprise Blvd. in the city of West Sacramento to Folsom Blvd. in the city of Folsom. ICM is considered the most efficient and effective approach to improve corridor-level, multi-modal, multi-jurisdictional transportation system performance without increasing roadway capacity. ICM is not only the connecting of individual intelligent transportation system (ITS) and transportation management systems (TMS), it also requires an institutional commitment to embrace a Transportation System Management and Operations (TSMO).

For Mainline Traffic volumes please refer to **Table-1** below.

Table-1: Traffic Volumes
(2016 Traffic Volumes on California State Highways)

Location Description	Type of Roadway	Peak-Hour, vph	AADT vpd
03-Yol-50-PM 0.35 Junction Rte 80	Multi-lane Freeway	9,900	119,600
03-Sac-50-PM R3.674 Junction Rte 16	Multi-lane Freeway	17,000	189,000
03-Sac-50-PM 17.008 Folsom Blvd/Natoma	Multi-lane Freeway	8,600	94,000

Table 1: Traffic Volumes Within Project Limits

For Percent Truck Traffic, please refer to **Table-2** below.

Table-2: Truck Volumes (2016 Truck Volumes on California State Highways)		
Location Description	**Location**	**% Trucks**
03-Yol-50-PM 0.35	Junction Rte 80	7.4
03-Sac-50-PM R3.674	Junction Rte 16	2.5
03-Sac-50-PM 17.008	Folsom Blvd./Natoma	6.0

Table 2: Truck Traffic Within Project Limits

Recommendations

- Due to heavy peak hour traffic on route 50 in Yolo and Sacramento Counties, work will be limited to nighttime hours and no lane closures or shoulder closures will be allowed during daytime and peak commute hours. No more than 6-hour shifts are likely, typically from midnight to 6 AM.
- Lane closures on multilane freeways will be performed in accordance with Standard Plan Sheet T10, "Traffic Control System for Lane Closure on Freeways and Expressways". Connector and ramp closures will be performed in accordance with Standard Plan Sheet T14, "Traffic Control System for Ramp Closure".
- A minimum of one paved traffic lane not less than 11-feet wide, must be kept open in each direction of travel on multilane roadways.
- The maximum length of any lane closure will be limited to one mile.
- Portable changeable message signs or PCMS, will be required in the direction of travel for each lane or shoulder closure.
- Adjacent ramps in the same direction of travel must not be closed simultaneously.
- Motorist Information Plans showing temporary detour routes, will be required for all connector closures. Connector closures will not be allowed until a detour is available and in place as shown on the Motorist Information Plan or a Traffic Handling Plan.
- No lane closures, shoulder closures, connector closures, ramp closures, or other restrictions will be allowed on a designated holiday or on the day before.
- When closures occur within 200-feet of an intersection, flaggers shall be used to control all legs of the intersection.

- Pedestrian and bicycle access must be maintained during construction.
- Work at all project locations will require the assistance of COZEEP, but a full time presence is not expected.
- Coordination with nearby projects will be required to avoid conflicts.
- Lane closure charts, specifications, and TMP relate estimate item costs will be developed prior to P&E.
- Delay damage clauses will be used with this project.

Calculating Working Days

Shorter construction night shifts caused by heavy traffic within the project limits should be accounted for when calculating the number of Traffic Control Days to complete the project. Typical night shifts for this contract will be around 6 hours per night shift rather than the typical 8- to 10-hour shifts allowed by light to moderate traffic. Calculate Traffic Control Days accordingly.

Cost

- For estimating purposes, use $2,500 per working day to estimate the costs that are required for the Traffic Management Plan items (TMP). These items include Traffic Control System, Portable Changeable Message Signs, Maintain Traffic, and TMP Public Information.
- Cozeep is estimated at $1,500 per working day and $3,000 per working night. This project is expected to involve mostly or exclusively night work.

P & E Requirement

To complete a TMP for this project, please provide the following to the Office of Traffic Management Planning at least three months prior to P&E: project description, title sheet, typical cross sections, layout sheets, construction cost estimates, number of working days, project schedule, and a contact person.

Attachments:

Data Sheet Checklist

ATTACHMENT E

Accident Rate Table B

California Department of Transportation

OTM22215

TSAR - ACCIDENT SUMMARY

Policy controlling the use of Traffic Accident Surveillance and Analysis System (TASAS) - Transportation Systems Network (TSN) Reports

1. TASAS - TSN has officially replaced the TASAS - "Legacy" database.

2. Reports from TSN are to be used and interpreted by the California Department of Transportation (Caltrans) officials or authorized representative.

3. Electronic versions of these reports may be emailed between Caltrans' employees only using the State computer system.

4. The contents of these reports shall be considered confidential and may be privileged pursuant to 23 U.S.C. Section 409, and are for the sole use of the intended recipient(s). Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message. Do not print, copy or forward.

California Department of Transportation

OTM22215

TSAR - ACCIDENT SUMMARY

REPORT PARAMETERS:

REPORT DATE	:	07/02/2019
REFERENCE DATE	:	07/02/2019
SUBMITTOR	:	T3SRAISI
REPORT TITLE	:	' '
EVENT ID	:	4131132

LOCATION CRITERIA:

FROM: 03-SAC-050 R005.300 TO: 03-SAC-050 017.800

SELECTION CRITERIA:

1 1 AND 508 - FILE TYPE = H

Accidents Date Range:

From -- 01/01/2016 To -- 12/31/2018

TASAS SELECTIVE RECORD RETRIEVAL
TSAR - ACCIDENT SUMMARY

TOTAL ACCIDENTS	FATAL	INJURY	PDO	PERSONS KILLED	PERSONS INJURED
1279	5	377	897	6	544

MOTOR VEHICLES INVOLVED NUMBER	PCT	CODE
255	19.9	1
765	59.8	2
190	14.9	3
69	5.4	>3

<---LINES CODED---> NUMBER	PCT	CODE
243	19.0	1
759	59.3	2
202	15.8	3
56	4.4	4
14	1.1	5
4	0.3	6
0	0.0	7
1	0.1	8
0	0.0	9

<---- HOUR OF DAY ----> NUMBER	PCT	CODE
22	1.7	00- 12 MID.
26	2.0	01- 1 A.M.
25	2.0	02- 2 A.M.
24	1.9	03- 3 A.M.
21	1.6	04- 4 A.M.
27	2.1	05- 5 A.M.
51	4.0	06- 6 A.M.
130	10.2	07- 7 A.M.
109	8.5	08- 8 A.M.
38	3.0	09- 9 A.M.
26	2.0	10- 10 A.M.
20	1.6	11- 11 A.M.
33	2.6	12- 12 NOON
27	2.1	13- 1 P.M.
39	3.0	14- 2 P.M.
76	5.9	15- 3 P.M.
135	10.6	16- 4 P.M.
215	16.8	17- 5 P.M.
77	6.0	18- 6 P.M.
29	2.3	19- 7 P.M.
32	2.5	20- 8 P.M.
31	2.4	21- 9 P.M.
34	2.7	22- 10 P.M.
29	2.3	23- 11 P.M.
3	0.2	25- UNKNOWN

<--- ACCESS CONTROL ---> NUMBER	PCT	CODE
0	0.0	C-CONVENTIONAL
0	0.0	E-EXPRESSWAY
1279	100.0	F-FREEWAY
0	0.0	S-1-WAY CITY ST
0	0.0	--INVALID DATA
0	0.0	+-NO DATA

<--- SIDE OF HIGHWAY ---> NUMBER	PCT	CODE
0	0.0	N-NORTHBOUND
0	0.0	S-SOUTHBOUND
632	49.4	E-EASTBOUND
647	50.6	W-WESTBOUND

<----- YEAR -----> NUMBER	PCT	CODE
0	0.0	2009
0	0.0	2010
0	0.0	2011
0	0.0	2012
0	0.0	2013
0	0.0	2014
0	0.0	2015
451	35.3	2016
405	31.7	2017
423	33.1	2018
0	0.0	2019

<----- MONTH -----> NUMBER	PCT	CODE
127	9.9	01-JANUARY
109	8.5	02-FEBRUARY
140	10.9	03-MARCH
93	7.3	04-APRIL
91	7.1	05-MAY
98	7.7	06-JUNE
81	6.3	07-JULY
90	7.0	08-AUGUST
96	7.5	09-SEPTEMBER
116	9.1	10-OCTOBER
131	10.2	11-NOVEMBER
107	8.4	12-DECEMBER

<---- DAY OF WEEK ----> NUMBER	PCT	CODE
99	7.7	1-SUNDAY
155	12.1	2-MONDAY
270	21.1	3-TUESDAY
232	18.1	4-WEDNESDAY
236	18.5	5-THURSDAY
191	14.9	6-FRIDAY
96	7.5	7-SATURDAY

<-- PRIMARY COLLISION FACTOR -->

NUMBER	PCT	CODE
52	4.1	1-INFLUENCE ALCOHOL
13	1.0	2-FOLLOW TOO CLOSE
0	0.0	3-FAILURE TO YIELD
189	14.8	4-IMPROPER TURN
707	55.3	5-SPEEDING
236	18.5	6-OTHER VIOLATIONS
0	0.0	B-IMPROPER DRIVING
65	5.1	C-OTHER THAN DRIVER
17	1.3	D-UNKNOWN
0	0.0	E-FELL SLEEP
0	0.0	<-NOT STATED
0	0.0	-INVALID CODES

<--- TYPE OF COLLISION --->

NUMBER	PCT	CODE
8	0.6	A-HEAD-ON
269	21.0	B-SIDESWIPE
667	52.2	C-REAR END
38	3.0	D-BROADSIDE
272	21.3	E-HIT OBJECT
9	0.7	F-OVERTURN
1	0.1	G-AUTO-PEDESTRIAN
15	1.2	H-OTHER
0	0.0	<-NOT STATED
0	0.0	-INVALID CODES

<--- ROADWAY CONDITION --->

NUMBER	PCT	CODE
2	0.2	A-HOLES, RUTS
4	0.3	B-LOOSE MATERIAL
12	0.9	C-OBSTRUCTION ON ROAD
9	0.7	D-CONSTRUCT-REPAIR-ZONE
0	0.0	E-REDUCED ROAD WIDTH
9	0.7	F-FLOODED
3	0.2	G-OTHER
1240	97.0	H-NO UNUSUAL CONDITION
0	0.0	<-NOT STATED
0	0.0	-INVALID CODES

<---------- WEATHER ---------->

NUMBER	PCT	CODE
942	73.7	A-CLEAR
267	20.9	B-CLOUDY
66	5.2	C-RAINING
0	0.0	D-SNOWING
4	0.3	E-FOG
0	0.0	F-OTHER
0	0.0	G-WIND
0	0.0	<-NOT STATED
0	0.0	-INVALID CODES

<------------ LIGHTING ------------>

NUMBER	PCT	CODE
808	63.2	A-DAY LIGHT
51	4.0	B-DUSK/DAWN
168	13.1	C-DARK-STREET LIGHT
251	19.6	D-DARK-NO STREET LIGHT
1	0.1	E-DARK-INOPR STREET LIGHT
0	0.0	F-DARK-NOT STATED
0	0.0	<-NOT STATED
0	0.0	-INVALID CODES

<------ ROAD SURFACE ------>

NUMBER	PCT	CODE
1036	81.0	A-DRY
243	19.0	B-WET
0	0.0	C-SNOWY, ICY
0	0.0	D-SLIPPERY
0	0.0	<-NOT STATED
0	0.0	-INVALID CODES

<------- RIGHT OF WAY CONTROL ------->

NUMBER	PCT	CODE
74	5.8	A-CONTROL FUNCTIONING
0	0.0	B-CONTROL NOT FUNCTIONING
3	0.2	C-CONTROLS OBSCURED
1202	94.0	D-NO CONTROLS PRESENT
0	0.0	<-NOT STATED
0	0.0	-INVALID CODES

<--------- HIGHWAY GROUP --------->

NUMBER	PCT	CODE
0	0.0	R-IND. ALIGN RIGHT
0	0.0	L-IND. ALIGN LEFT
1279	100.0	D-DIVIDED
0	0.0	U-UNDIVIDED

<- INTERSECTION/RAMP ACCIDENT LOCATION ->

NUMBER	PCT	CODE
0	0.0	1-RAMP INTERSECTION (EXIT)
0	0.0	2-RAMP
0	0.0	3-RAMP ENTRY
0	0.0	4-RAMP AREA, INTERSECTION STREET
0	0.0	5-IN INTERSECTION
0	0.0	6-OUTSIDE INTRSCT-NONSTATE RTE
1279	100.0	--DOES NOT APPLY

TASAS SELECTIVE RECORD RETRIEVAL
TSAR- PARTY SUMMARY

<---------- PARTY TYPE ---------->

NUMBER	PCT	CODE
1214	94.9	A-PASNGR CAR/STA WAGON
3	0.2	B-PASNGR CAR W/TRAILER
19	1.5	C-MOTORCYCLE
297	23.2	D-PICKUP/PANEL TRUCK
17	1.3	E-PICKUP/PANEL W/TRAILER
17	1.3	F-TRUCK/TRUCK TRACTOR
24	1.9	G-TRUCK/TRACTOR & 1 TRAILER
0	0.0	2-TRUCK/TRACTOR & 2 TRAILER
0	0.0	3-TRUCK/TRACTOR & 3 TRAILER
1	0.1	4-SINGLE UNIT TANKER
3	0.2	5-TRUCK/TRA & 1 TANK TRALR
0	0.0	6-TRUCK/TRA & 2 TANK TRALR
1	0.1	H-SCHOOL BUS
4	0.3	I-OTHER BUS
11	0.9	J-EMERGENCY VEHICLE
4	0.3	K-HIGHWAY CONST EQUP.**
0	0.0	L-BICYCLE
63	4.9	M-OTHER-MOTOR VEH
12	0.9	N-OTHER-NON-MOTOR VEH
10	0.8	O-SPILLED LOADS
1	0.1	P-DISENGAGED TOW
0	0.0	Q-UNINVOLVED VEHICLE
0	0.0	R-MOPED
0	0.0	T-TRAIN
3	0.2	U-PEDESTRIAN
2	0.2	V-DISMOUNT PEDESTRIAN
0	0.0	W-ANIMAL - LIVESTOCK
8	0.6	X-ANIMAL - DEER
2	0.2	Z-ANIMAL - OTHER

<- MOVEMENT PRECEDING COLLISION ->

NUMBER	PCT	CODE
346	27.1	A-STOPPED
1065	83.3	B-PROCEDED STRAIGHT
28	2.2	C-RAN OFF ROAD
0	0.0	D-MAKING RIGHT TURN
0	0.0	E-MAKING LEFT TURN
1	0.1	F-MAKING U TURN
4	0.3	G-BACKING
278	21.7	H-SLOWING, STOPPING
4	0.3	I-PASS OTHER VEHICLE
215	16.8	J-CHANGING LANES
0	0.0	K-PARKING
4	0.3	L-ENTER FROM SHLDR
54	4.2	M-OTHER UNSAFE TURN
0	0.0	N-CROSS INTO OPP LN
15	1.2	O-PARKED
7	0.5	P-MERGING
1	0.1	Q-TRAVEL WRONG WAY
151	11.8	R-OTHER
0	0.0	<-NOT STATED

PEDESTRIAN

0	0.0	2- XING XWALK - INTRST
0	0.0	3- XING XWALK - NOT INTR
0	0.0	4- XING NOT XWALK
3	0.2	5- ROADWAY - INCL SHLDR
0	0.0	6- NOT IN ROADWAY
0	0.0	7- APRH-LEAVE SCHL BUS
0	0.0	- INVALID CODES

<---- OTHER ASSOCIATED FACTORS ---->

#1 NUMBER	#1 PCT	#2 NUMBER	#2 PCT	CODE
1	0.1	0	0.0	1-INFLUENCE ALCOHOL
3	0.2	0	0.0	2-FOLLOW TOO CLOSE
0	0.0	0	0.0	3-FAILURE TO YIELD
25	2.0	0	0.0	4-IMPROPER TURN
55	4.3	0	0.0	5-SPEEDING
22	1.7	0	0.0	6-OTHER VIOLATIONS
5	0.4	0	0.0	A-CELL PHONE* (INATTN)
1	0.1	0	0.0	B-ELECTRC EQUIP*(INATTN)
6	0.5	0	0.0	C-RADIO/CD/HDPHN*(INATTN)
1	0.1	0	0.0	D-SMOKING* (INATTN)
0	0.0	0	0.0	E-VISION OBSCUREMENT
16	1.3	0	0.0	F-INATTENTION - OTHER
42	3.3	0	0.0	G-STOP & GO TRAFFIC
7	0.5	2	0.2	H-ENTER/LEAVE RAMP
32	2.5	5	0.4	I-PREVIOUS COLLISION
0	0.0	0	0.0	J-UNFAMILIAR WITH ROAD
3	0.2	0	0.0	K-DEFECT VEHICLE EQUIP
7	0.5	3	0.2	L-UNINVOLVED VEHICLE
10	0.8	1	0.1	M-OTHER
1178	92.1	16	1.3	N-NONE APPARENT
0	0.0	0	0.0	P-WIND
0	0.0	0	0.0	R-RAMP ACCIDENT
2	0.2	1	0.1	S-RUNAWAY VEHICLE
4	0.3	0	0.0	T-EATING* (INATTN)
0	0.0	0	0.0	U-CHILDREN* (INATTN)
0	0.0	0	0.0	V-ANIMALS* (INATTN)
1	0.1	0	0.0	W-PERSNL HYGIENE*(INATTN)
0	0.0	0	0.0	X-READING* (INATTN)
41	3.2	1269	99.2	<-NOT STATED
0	0.0	0	0.0	--DOES NOT APPLY

<---- DIRECTION OF TRAVEL ---->

NUMBER	PCT	CODE
1	0.1	N-N, NE, NW BOUND
2	0.2	S-S, SE, SW BOUND
638	49.9	E-EASTBOUND
652	51.0	W-WESTBOUND
29	2.3	<-NOT STATED
0	0.0	--DOES NOT APPLY
0	0.0	-INVALID CODES

<---- SPECIAL INFORMATION ---->

NUMBER	PCT	CODE
0	0.0	A-HAZARDOUS MATERIALS
32	2.5	B-CELL PHONE IN USE*
1105	86.4	C-CELL PHONE NOT IN USE*
0	0.0	D-CELL PHONE NONE/UNKNOWN*
221	17.3	<-NOT STATED
0	0.0	--DOES NOT APPLY
0	0.0	-INVALID CODES

* INATTENTION CODES EFF. 01-01-01

** INCLUDES EQUIPMENT ENGAGED IN CONST/MAINT ACTIVITIES AS OF 00-02-22

* SPECIAL INFORMATION CODES EFF. 04-01-01

<------------------- OBJECT STRUCK ------------------->

PRIMARY NUMBER	PRIMARY PCT	OTHERS NUMBER	OTHERS PCT	CODE
1	0.1	2	0.2	01-SIDE OF BRIDGE RAILING
0	0.0	0	0.0	02-END OF BRIDGE RAILING
0	0.0	0	0.0	03-PIER, COLUMN, ABUTMENT
0	0.0	0	0.0	04-BOTTOM OF STRUCTURE
0	0.0	0	0.0	05-BRIDGE END POST IN GORE
4	0.3	1	0.1	06-END OF GUARD RAIL
0	0.0	0	0.0	07-BRIDGE APPROACH GUARD RAIL
6	0.5	5	0.4	10-LIGHT OR SIGNAL POLE
0	0.0	2	0.2	11-UTILITY POLE
0	0.0	1	0.1	12-POLE (TYPE NOT STATED)
7	0.5	7	0.5	13-TRAFFIC SIGN/SIGN POST
2	0.2	1	0.1	14-OTHER SIGNS NOT TRAFFIC
22	1.7	16	1.3	15-GUARDRAIL
100	7.8	76	5.9	16-MEDIAN BARRIER
7	0.2	3	0.2	17-WALL (EXCEPT SOUND WALL)
1	0.1	2	0.2	18-DIKE OR CURB
0	0.0	0	0.2	19-TRAFFIC ISLAND
0	0.0	0	0.0	20-RAISED BARS
0	0.0	0	0.0	21-CONCRETE OBJ (HDWL, D.I.)
1	0.1	0	0.0	22-GUIDEPOST, CULVERT, PM
4	0.3	3	0.2	23-CUT SLOPE OR EMBANKMENT
6	0.5	6	0.5	24-OVER EMBANKMENT
0	0.0	0	0.0	25-IN WATER
5	0.4	4	0.3	26-DRAINAGE DITCH
37	2.9	20	1.6	27-FENCE
0	0.0	11	0.9	28-TREES
2	0.2	2	0.2	29-PLANTS
8	0.6	4	0.3	30-SOUND WALL
0	0.0	0	0.0	40-NATURAL MATRL ON ROAD
2	0.2	1	0.1	41-TEMP BARRICADES, CONES
44	3.4	0	0.0	42-OTHER OBJECT ON ROAD
1	0.1	1	0.1	43-OTHER OBJECT OFF ROAD
6	0.5	43	3.4	44-OVERTURNED
0	0.0	0	0.0	45-CRASH CUSHION (SAND)
1	0.1	0	0.0	46-CRASH CUSHION (OTHER)
2	0.2	0	0.0	51-CALL BOX
3	0.2	0	0.0	98-UNKNOWN OBJECT STRUCK
4	0.3	1	0.1	99- NO OBJECT INVOLVED
1003	78.4	271	21.2	V1 THRU V9 VEHICLE 1 TO 9
11	0.9	0	0.0	<< NOT STATED
293	22.9	1278	99.9	-- DOES NOT APPLY
0	0.0	0	0.0	- INVALID CODES

<------ LOCATION OF COLLISION ------>

PRIMARY NUMBER	PRIMARY PCT	OTHERS NUMBER	OTHERS PCT	CODE
5	0.4	1	0.1	A-BEYOND MEDIAN OR STRIPE-LEFT
101	7.9	76	5.9	B-BEYOND SHLDER DRIVERS LEFT
7	0.5	10	0.8	C-LEFT SHOULDER AREA
292	22.8	94	7.3	D-LEFT LANE
579	45.3	148	11.6	E-INTERIOR LANES
254	19.9	55	4.3	F-RIGHT LANE
12	0.9	7	0.5	G-RIGHT SHOULDER AREA
119	9.3	84	6.6	H-BEYOND SHLDER DRIVERS RIGHT
2	0.2	2	0.2	I-GORE AREA
1	0.1	2	0.2	J-OTHER
65	5.1	12	0.9	V-HOV LANE(S)
0	0.0	0	0.0	W-HOV LANE BUFFER AREA
9	0.7	4	0.3	<-NOT STATED
302	23.6	1278	99.9	--DOES NOT APPLY
0	0.0	0	0.0	-INVALID CODES

<------ DRUG/PHYSICAL ------>

PRIMARY NUMBER	PRIMARY PCT	OTHERS NUMBER	OTHERS PCT	CODE
1223	95.6	0	0.0	A-HAD NOT BEEN DRINKING
44	3.4	0	0.0	B-HBD - UNDER INFLUENCE
11	0.9	0	0.0	C-HBD - NOT UNDER INFLUENCE
3	0.2	0	0.0	D-HBD - IMPAIRMENT UNKNOWN
8	0.6	1	0.1	E-UNDER DRUG INFLUENCE
0	0.0	0	0.0	F-OTHER PHYSICAL IMPAIRMENT
184	14.4	0	0.0	G-IMPAIRMENT NOT KNOWN
24	1.9	0	0.0	H-NOT APPLICABLE
7	0.5	11	0.9	I-FATIGUE
37	2.9	1273	99.5	< NOT STATED
0	0.0	0	0.0	--DOES NOT APPLY
0	0.0	0	0.0	-INVALID CODES

ATTACHMENT F

Stormwater Deferral Email

Micro Stormwater Data Report

Date:	March 28, 2019
Proj ID (EA):	0317000325 (03-3H3300)
Dist/Co/Rte/PM:	03-YOL-80, 50-SAC-50, PM VAR (See Locations tab)
Nickname:	HWY 50 ICM INFRASTRUCTURE
Regional Board	CVRWQCB (Central Valley)
SWPPP/WPCP	WPCP
DSA	0.56
NNI	0
401 Cert (Y/N)	N
Other Location Specific Permit	

Project Phase:

PID	PA&ED	PSE	Help
	X		

Begin Construction Date: 4/5/2021 End Construction Date: 12/1/2023

WORK DESCRIPTION: (please provide full scope of project in detail)

US 50 Integrated Corridor Management Implementation Plan(ICM) Connecting corridors along US-50. The AE will include new and upgraded communication (Fiber Optic), Vehicle detection, Changeable Message Sign (CMS), Dynamic Message Sign (DMS), Ramp Metering System (RMS), Cameras (CCTV), Gantries with DMS and Traffic Signals. The project is constructed within Caltrans Right of Way. We also might add new Metal Beam Guard Rail (MBGR) and new Maitenance Vehicle Pullouts (MVP) for traffic safety in some locations which is also within Existing Right of Way.

Describe changes in impervious area or drainage.

The construction of HWY 50 ICM project will not effect any Drainage area since its all Electrical components. For safety of our Maintenance crew we will be installing Maintenance pull outs where permitted next to some TOS elements that will have minimal effect to area Storm Water collections.

Use the dropdown menu on the cell to validate the statements below.

1 Yes — The project is exempt from treatment BMP consideration in accordance with the attached Evaluation Documentation Form.

2 Yes — The proposed project will not add or replace any impervious area excluding pedestrian and/or bicycle facilities.

3 Yes — The project is not eligible for, or will not seek, Compliance Unit Credits.

4 Yes — The project is eligible for a Water Quality Assessment Exemption or the WQAR identifies no permits or permanent water quality concerns.

Comments:

Based on the information provided above the project does not have any stormwater impacts and does not trigger water quality treatment requirements of the 2012 CT MS4 Permit.
The project is exempt from preparing a full Stormwater Data Report for the phase(s) entered above.
This exemption is only valid for the scope of work and project phase described above.
Complete the Evaluation Documentation Form (EDF) and attached it to this exemption for the project records.

Jonathan Wing — 7/31/19

Typed Name: Jonathan Wing
Signature - Project Engineer — Date

Russ Petty — 7-31-19

Typed Name: Russ Petty
Signature - Regional SW Coordinator or Designee — Date

Evaluation Documentation Form

Date: 3/28/2019

Project ID(EA) 0317000325 (03-3H3300)

No	Criteria	Yes ✓	No ✓	Supplemental Information for Evaluation
1	Begin Project evaluation regarding requirement for implementation of Treatment BMPs	✓		See Figure 4-1, Project Evaluation Process for Consideration of Permanent Treatment BMPs. Continue to 2.
2	Is the scope of the Project to install Treatment BMPs (e.g., Alternative Compliance or TMDL Compliance)?		X	If Yes, go to 8. If No, continue to 3.
3	Is there a direct or indirect discharge to surface waters?	X		If Yes, continue to 4. If No, go to 9
4	As defined in the WQAR, does the Project have: 1. Areas of Special Biological Significance (ASBS), 2. A TMDL area where Caltrans is named stakeholder, or 3. Other Pollution Control Requirements for surface waters within the project limits?		X X X	If Yes to any, contact the District/Regional Stormwater Coordinator to discuss the Department's obligations, go to 8 or 5. CP (Dist./Reg. SW Coordinator initials) The Receiving water body is 303(d) listed. As per the DNC go to question #5 If No, continue to 5.
5	Are any existing Treatment BMPs partially or completely removed?		X	If Yes, go to 8 AND continue to 6. If No, continue to 6.
6	Is this a Routine Maintenance Project?		X	If Yes, continue to 9. If No, go to 7.
7	Does the project result in one acre or more of new impervious surface (NIS)?		X	If Yes, go to 8. _____ac *NIS (NIS=NNI+ RIS)* If No, continue to 9.
8	Project is required to implement Treatment BMPs.	Complete Checklist T-1, Part 1.		
9	Project is not required to implement Treatment BMPs. CP *(Dist. /Reg. SW Coord. Initials)* RVL *(Project Engineer Initials)*	Document for Project Files by completing this form and attaching it to the SWDR.		

CO	RTE	PREFIX	PM	DIRECTION	LOCATION	ELEMENT	elem sub	PHASE	com1Typ	ea	projYr	Work Type(Upgrade/New Install)	Remarks
YOL	080		9.15	EB	I-80 EB/Enterprise Blvd	Traffic Signal		Existing				Upgrade	(Part of ICM) Signal Communication/Cabinet Upgrade
YOL	080		9.315	WB	Enterprise Blvd.	Ramp Meters		Future				New Install	
YOL	080		9.32	WB	I-80 WB/West Capitol Ave	Traffic Signal		Existing				Upgrade	(Part of ICM) Signal Communication/Cabinet Upgrade
YOL	080		9.356	WB	Capitol Ave, [HI	EMS	HiWind	Existing	Cellular	38570	2002	Upgrade	
YOL	080	R	9.39	EB	Jct50	CMS	LED	Future				New Install	
YOL	080		9.508	WB	Enterprise Blvd	DMS/Off Ramp		Future				New Install	
YOL	080		9.517	EB	E of Enterprise I	Detection	LP	Existing	Cellular	4C030	2009	Upgrade	
YOL	050		0.4	EB	80/50 IC	CCTV	PTZ	Future				New Install	[Betw een Jefferson and Harbor]
YOL	050		0.536	EB	50-80 I.C. #2	Detection	MVDS	Existing	Cellular			Upgrade	
YOL	050		0.555	WB	50-80 I.C.	Detection	MVDS	Existing	Cellular			Upgrade	
YOL	050		0.555	EB	50-80 I.C.	Detection	MVDS	Existing	Cellular			Upgrade	
YOL	050		0.889	WB	Junction 80/50	CMS	LED	Future				New Install	
YOL	050		0.921	EB	Harbor	CMS	LED	Future				New Install	
YOL	050		1.028	EB	Harbor Blvd- Ex	DMS/Off Ramp		Future				New Install	
YOL	050		1.141	WB	SB Harbor Blvd	Ramp Meters	LP	Existing	DSL	38800	2011	Upgrade	
YOL	050		1.21	EB	Harbor Blvd	Traffic Signal		Existing				Upgrade	(Part of ICM) Signal Communication/Cabinet Upgrade
YOL	050		1.21	WB	Harbor Blvd	Traffic Signal		Existing				Upgrade	(Part of ICM) Signal Communication/Cabinet Upgrade
YOL	050		1.253	WB	Harbor Blvd	CCTV	PTZ	Existing	DSL	43010	2000	Upgrade	
YOL	050		1.253	WB	NB Harbor Blvd	Ramp Meters	LP	Existing	DSL	38800	2011	Upgrade	
YOL	050		1.293	EB	Harbor Blvd	Ramp Meters	LP	Existing	DSL	38800	2011	Upgrade	
YOL	050		1.457	WB	Harbor Blvd- Ex	DMS/Off Ramp		Future				New Install	
YOL	050		1.544	WB	Harbor	CMS	LED	Future				New Install	
YOL	050		1.8	EB	2.2 miles W. of I	CMS	LED	Future		DC282		New Install	
YOL	050		1.811	WB	Capitol Ave.	Detection	LP	Existing	Cellular			Upgrade	
YOL	050		1.916	EB	Jefferson Blvd- E	DMS/Off Ramp		Future				New Install	
YOL	050		2.002	EB	Jefferson	CMS	LED	Future				New Install	
YOL	050		2.298	WB	SR-275	Ramp Meters		Future				New Install	
YOL	050		2.5	EB	Jefferson Blvd.	CCTV	PTZ	Existing	DSL	43010	2000	Upgrade	
YOL	050		2.49	EB	Jefferson Blvd	Ramp Meters	LP	Future		2E600		New Install	
YOL	050		2.5	EB	Jefferson Blvd.	Detection	MVDS	Existing	Cellular	43010	2002	Upgrade	
YOL	050		2.491	EB	Jefferson Blvd	Traffic Signal		Existing				Upgrade	
YOL	050		2.53	WB	Jefferson Blvd	Traffic Signal		Existing				Upgrade	(Part of ICM) Signal Communication/Cabinet Upgrade
YOL	050		2.824	EB	S River Rd.	Ramp Meters		Future				New Install	
YOL	050		3.001	WB	South River Rd/	DMS/Off Ramp		Future				New Install	
YOL	050		3.013	WB	Jefferson	CMS	LED	Future				New Install	
SAC	050	L	0.07	EB	Junction 5/50	CMS	LED	Future				New Install	
SAC	050	L	0.084	EB	EB 50 to I-5 Cor	DMS/Off Ramp		Future				New Install	
SAC	050	L	0.157	WB	SB I-5 to WB 50	Ramp Meters		Future				New Install	
SAC	050	L	0.157	WB	NB I-5 to WB 50	Ramp Meters		Future				New Install	
SAC	050	L	0.354	EB	I-5/ US 50 Interchange	CCTV	PTZ	Future	Fiber			New Install	90' Lowerable CCTV Pole
SAC	050	L	0.43	WB	5th St.	Ramp Meters	LP	Future				New Install	
SAC	050	L	0.52	WB	4th Street [4th	CCTV	PTZ	Existing	Hicap	37680	1996	Upgrade	
SAC	050	L	0.47	EB	NB I-5 to EB50	Ramp Meters		Future				New Install	
SAC	050	L	0.47	EB	SB I-5 to EB 50	Ramp Meters		Future				New Install	
SAC	050	L	0.656	EB	6th Street	Detection	LP	Existing		37680	1997	Upgrade	
SAC	050	L	0.656	EB	6th Street	DMS/Gantry		Future				New Install	
SAC	050	L	0.656	WB	6th Street	DMS/Gantry		Future				New Install	

SAC	050	L	0.717	WB	WB 50 to I-5 Co	DMS/Off Ramp		Future				New Install	
SAC	050	L	0.84	WB	8th Street	CMS	Xenon	Existing	DSL	43010	2002	Upgrade	
SAC	050	L	0.886	EB	9th St, UC	CCTV	PTZ	Existing	DSL	37680	1996	Upgrade	
SAC	050	L	0.979	WB	W Street/10th Street-US 50 WB	Traffic Signal		Existing				Upgrade	
SAC	050	L	1.066	EB	15th St	CMS	LED	Future				New Install	
SAC	050	L	1.132	EB	15th Street - Exit	DMS/Off Ramp		Future				New Install	
SAC	050	L	1.215	EB	12th Street	Ramp Meters	LP	Existing	Cellular	37680	1997	Upgrade	
SAC	050	L	1.45	EB	16th Street	DMS/Gantry		Future				New Install	
SAC	050	L	1.43	WB	16th Street	DMS/Gantry		Future				New Install	
SAC	050	L	1.351	WB	15th Street	Ramp Meters	LP	Existing	DSL	37680	1997	Upgrade	
SAC	050	L	1.36	WB	W Street/16th Street-US 50 WB	Traffic Signal		Existing				Upgrade	(Part of ICM) Signal Controller Upgrade
SAC	050	L	1.36	EB	X Street/15th Street-US 50 EB Off	Traffic Signal		Existing				Upgrade	(Part of ICM) Signal Controller Upgrade
SAC	050	L	1.45	WB	16th Street	CCTV	PTZ	Future	Fiber			New Install	Part of ICM
SAC	050	L	1.45	EB	X Street/16th Street-US 50 EB On	Traffic Signal		Existing				Upgrade	(Part of ICM) Signal Controller Upgrade
SAC	050	L	1.471	EB	16th Street	Ramp Meters	LP	Existing	DSL	37680	1997	Upgrade	
SAC	050	L	1.482	WB	10th Street - Ex	DMS/Off Ramp		Future				New Install	
SAC	050	L	1.492	WB	10th St	CMS	LED	Future				New Install	
SAC	050	L	1.571	EB	18th Street	CMS	Xenon	Existing	POTS	43010	2002	Upgrade	
SAC	050	L	1.6	WB	16th Street	Detection	LP	Existing	DSL	37680	1997	Upgrade	
SAC	050	L	1.106	WB	16th St	CMS	LED	Future				New Install	
SAC	050	L	1.671	WB	16th Street - Ex	DMS/Off Ramp		Future				New Install	
SAC	050	L	1.76	EB	20th St.	CCTV	PTZ	Existing	DSL	37680	1996	Upgrade	
SAC	050	R	0.34	EB	SB Rte 51 to EB	Ramp Meters		Future				New Install	
SAC	050	L	2.013	WB	SB 51 to WB 50	Ramp Meters		Future				New Install	
SAC	050	L	2.08	EB	25th Street	Detection	LP	Existing	Cellular	37680	1997	Upgrade	
SAC	050	L	2.08	EB	25th Street	DMS/Gantry		Future				New Install	
SAC	050	L	2.08	WB	25th Street	DMS/Gantry		Future				New Install	
SAC	050	R	0.34	EB	NB 99 to EB 50	Ramp Meters		Future				New Install	
SAC	050	L	2.195	WB	NB 99 to WB 50	Ramp Meters		Future				New Install	
SAC	050	L	2.313	EB	EB 50 to Hwy 99	DMS/Off Ramp		Future				New Install	
SAC	050	L	2.4	WB	SB 51/WB 50 Co	Detection	LP	Existing	Cellular	37680	1997	Upgrade	
SAC	050	L	2.385	EB	28th St.	CCTV	PTZ	Existing	DSL	37680	1996	Upgrade	
SAC	050	L	2.344	EB	28th Street	Ramp Meters	LP	Existing	DSL	37680	1997	Upgrade	
SAC	050	R	0.017	EB	US 50/ Hwy 99 Interchange	CCTV	PTZ	Future	Fiber			New Install	80' Loweable CCTV Pole
SAC	050	R	0.044	EB	34th St	CMS	LED	Future				New Install	
SAC	050	R	0.152	EB	34th Street - Exit	DMS/Off Ramp		Future				New Install	
SAC	050	R	0.371	EB	34th Street	Traffic Signal		Existing				Upgrade	
SAC	050	R	0.395	EB	34th Street	DMS/Gantry		Future				New Install	
SAC	050	R	0.395	WB	34th Street	DMS/Gantry		Future				New Install	
SAC	050	R	0.425	WB	Junction 5/99	CMS	LED	Future				New Install	
SAC	050	R	0.453	WB	WB 50 to Hwy 9	DMS/Off Ramp		Future				New Install	

SAC	050	R	0.53	WB	Stockton Blvd/35th Street-US 50 WB On	Traffic Signal		Existing				Upgrade	(Part of ICM) Signal Controller Upgrade
SAC	050	R	0.569	EB	Stockton Blvd	CCTV	PTZ	Future	Fiber			New Install	
SAC	050	R	0.595	WB	Stockton Blvd.	Ramp Meters	LP	Existing	DSL	22600	1987	Upgrade	
SAC	050	R	0.657	EB	Stockton Blvd.	Ramp Meters	LP	Existing	DSL	1C12U	2010	Upgrade	
SAC	050	R	0.9	WB	39th St.	CCTV	PTZ	Existing	DSL	43010	2000	Upgrade	
SAC	050	R	0.855	WB	Stockton Blvd -E	DMS/Off Ramp		Future				New Install	
SAC	050	R	0.908	WB	Stockton Blvd	CMS	LED	Future				New Install	
SAC	050	R	1.145	EB	44th Street	DMS/Gantry		Future				New Install	
SAC	050	R	1.145	WB	44th Street	DMS/Gantry		Future				New Install	
SAC	050	R	1.418	WB	48th Street	CMS	Xenon	Existing	DSL	37680	1997	Upgrade	Existing sign is mounted on the O.C. Structure. Need to move the sign West of the O.C. -Need new AVMS Pole and Sign.
SAC	050	R	1.454	EB	48th Street	Detection	LP	Existing	Cellular	37680	1997	Upgrade	
SAC	050	R	1.577	EB	59th St	CMS	LED	Future				New Install	
SAC	050	R	1.8	EB	51st St.	CCTV	PTZ	Existing	DSL		2000	Upgrade	
SAC	050	R	1.718	EB	59th Street - Ex	DMS/Off Ramp		Future				New Install	
SAC	050	R	1.934	WB	59th St.	Ramp Meters	LP	Existing	Cellular	22600	1987	Upgrade	
SAC	050	R	2.056	EB	59th Street	Detection	MVDS	Existing	Cellular	43010	2002	Upgrade	
SAC	050	R	2.1	WB	59th Street	CCTV	PTZ	Future				New Install	Part of ICM
SAC	050	R	2.116	EB	59th Street	Traffic Signal		Existing				Upgrade	
SAC	050	R	2.295	EB	65th St	CMS	LED	Future				New Install	
SAC	050	R	2.304	EB	61th Street	DMS/Gantry		Future				New Install	
SAC	050	R	2.304	WB	61th Street	DMS/Gantry		Future				New Install	
SAC	050	R	2.403	EB	65th Street - Ex	DMS/Off Ramp		Future				New Install	
SAC	050	R	2.61	EB	65th St. (SB)	Ramp Meters	LP	Existing	DSL	1C12U	2010	Upgrade	
SAC	050	R	2.596	WB	65th St. (SB)	Ramp Meters	LP	Existing	Cellular	22600	1987	Upgrade	
SAC	050	R	2.639	EB	65th Street	CCTV	PTZ	Existing	DSL	43010	2000	Upgrade	
SAC	050	R	2.641	EB	65th Street	Traffic Signal		Existing				Upgrade	
SAC	050	R	2.646	WB	65th Street	Traffic Signal		Existing				Upgrade	
SAC	050	R	2.68	WB	65th St. (NB)	Ramp Meters	LP	Existing	Cellular	22600	1987	Upgrade	
SAC	050	R	2.695	EB	65th St. (NB)	Ramp Meters	LP	Existing	DSL	1C12U	2010	Upgrade	
SAC	050	R	2.902	WB	65th Street - Ex	DMS/Off Ramp		Future				New Install	
SAC	050	R	3.017	EB	Howe Ave	CMS	LED	Future				New Install	
SAC	050	R	3.022	WB	65th St	CMS	LED	Future				New Install	
SAC	050	R	3.279	EB	Howe Ave/Powe	DMS/Off Ramp		Future				New Install	
SAC	050	R	3.3	EB	Hornet Dr	Detection	MVDS	Existing	Cellular	43010	2002	Upgrade	
SAC	050	R	3.386	WB	W. of Hornet Drive	CCTV	PTZ	Future				New Install	
SAC	050	R	3.406	WB	Hornet Dr.	Ramp Meters	LP	Existing	Cellular	22600	1987	Upgrade	
SAC	050	R	3.615	EB	SB Howe Ave	Ramp Meters	LP	Existing	Non-Leased L	37080	2001	Upgrade	
SAC	050	R	3.656	EB	Howe Ave/Powe	Traffic Signal		Existing				Upgrade	
SAC	050	R	3.673	WB	SB Howe Ave	Ramp Meters	LP	Existing	DSL	22600	1987	Upgrade	
SAC	050	R	3.7	WB	Howe Ave	Detection	MVDS	Existing	Cellular	43010	2002	Upgrade	
SAC	050	R	3.704	WB	Howe Ave	Traffic Signal		Existing				Upgrade	
SAC	050	R	3.759	WB	NB Howe Ave	Ramp Meters	LP	Existing	DSL	22600	1987	Upgrade	
SAC	050	R	3.88	EB	NB Howe Ave	Ramp Meters	LP	Existing	Cellular	37080	2001	Upgrade	
SAC	050	R	3.998	WB	Power Inn Rd/H	DMS/Off Ramp		Future				New Install	
SAC	050	R	4.238	WB	E. of Howe Ave	CCTV	PTZ	Future				New Install	Next to existing Howe Ave CMS
SAC	050	R	4.262	WB	Howe Ave	CMS	LED	Future				New Install	
SAC	050	R	4.265	EB	Howe Ave	CMS	Xenon	Existing	DSL	43010	2002	Upgrade	
SAC	050	R	4.5	EB	Occidental Dr O	Detection	MVDS	Existing	Cellular	43010	2002	Upgrade	

SAC	050	R	4.738	EB	E. of Occidental Drive	CCTV	PTZ	Future				New Install	Part of ICM
SAC	050	R	4.959	EB	Watt Ave -Exit 6	DMS/Off Ramp		Future				New Install	
SAC	050	R	5.21	EB	Watt	EMS	Aiter	Existing	Fiber	43010	2000	Upgrade	
SAC	050	R	5.236	WB	SB Watt Ave	Ramp Meters	LP	Existing	DSL	22600	1987	Upgrade	
SAC	050	R	5.374	WB	NB Watt Ave	Ramp Meters	LP	Existing	Fiber	22600	1987	Upgrade	
SAC	050	R	5.292	EB	SB Watt Ave	Ramp Meters	LP	Existing	Fiber	44161	2013	Upgrade	
SAC	050	R	5.319	WB	Watt Ave	Traffic Signal		Existing				Upgrade	
SAC	050	R	5.3	WB	Watt Ave.	CCTV	PTZ	Existing	Fiber	43010	2000	Upgrade	
SAC	050	R	5.354	EB	Watt Ave	Traffic Signal		Existing				Upgrade	
SAC	050	R	5.428	EB	NB Watt Ave.	Ramp Meters	LP	Existing	Fiber	44161	7013	Upgrade	
SAC	050	R	5.472	WB	Watt Ave -Exit 6	DMS/Off Ramp		Future				New Install	
SAC	050	R	5.7	EB	Manlove POC	Detection	LP	Existing	Fiber	43010	2002	Upgrade	
SAC	050	R	5.8	EB	E. of Manlove O.C	CCTV	PTZ	Future				New Install	Combine existing TMS and new CCTV in one Cabinet.
SAC	050	R	6.262	WB	W. of Mayhew	Detection	LP	Existing	Fiber			Upgrade	
SAC	050	R	6.567	EB	W. of Mayhew Rd	CCTV	PTZ	Existing					Replace existing CCTV With 50' Lowerable CCTV Pole
SAC	050	R	7.054	EB	Mayhew Rd.	Detection	LP	Existing	Fiber			Upgrade	
SAC	050	R	7.64	EB	Bradshaw Rd -E	DMS/Off Ramp		Future				New Install	
SAC	050	R	7.672	EB	SB Bradshaw Rd	Ramp Meters	LP	Existing	Fiber				Part of ICM
SAC	050	R	7.71	EB	US 50 EB/Bradshaw Road	Traffic Signal		Existing				Upgrade	(Part of ICM) Signal Controller Upgrade
SAC	050	R	7.712	EB	NB Bradshaw Rd.	Ramp Meters	LP	Existing	Fiber				
SAC	050	R	7.744	EB	Bradshaw Rd	CCTV	PTZ	Existing				Upgrade	
SAC	050	R	7.78	WB	US 50 WB/Bradshaw Road	Traffic Signal		Existing				Upgrade	(Part of ICM) Signal Controller Upgrade
SAC	050	R	7.798	WB	SB Bradshaw Rd.	Ramp Meters	LP	Existing					
SAC	050	R	7.807	WB	NB Bradshaw Rd	Ramp Meters	LP	Existing					Part of ICM
SAC	050	R	8.078	WB	Bradshaw Rd -E	DMS/Off Ramp		Future				New Install	
SAC	050	R	8.270	WB	E. of Bradshaw	Detection	LP	Existing	Fiber			Upgrade	
SAC	050	R	8.356	WB	E. of Bradshaw Rd	CCTV	PTZ	Future				New Install	Combine existing TMS and new CCTV in one Cabinet.
SAC	050	R	8.699	WB	Routier Rd.	Detection	LP	Existing	Fiber			Upgrade	
SAC	050	R	8.9	WB	Routier Road	CCTV	PTZ	Future				New Install	Combine existing TMS and new CCTV in one Cabinet.
SAC	050	R	9.761	EB	Mather Field Rd	DMS/Off Ramp		Future				New Install	
SAC	050	R	9.467	EB	SB Mather Field	Ramp Meters	LP	Existing	Fiber				Part of ICM
SAC	050	R	9.482	WB	SB Mather Field	Ramp Meters	LP	Existing					
SAC	050	R	9.5	EB	Mather Field Road	CCTV	PTZ	Existing	Fiber			Upgrade	Part of ICM
SAC	050	R	9.5	WB	US 50 WB/Mather Field Road	Traffic Signal		Existing				Upgrade	(Part of ICM) Signal Controller Upgrade
SAC	050	R	9.519	EB	NB Mather Field	Ramp Meters	LP	Existing	Fiber				
SAC	050	R	9.52	EB	US 50 EB/Mather Field Road	Traffic Signal		Existing				Upgrade	(Part of ICM) Signal Controller Upgrade
SAC	050	R	9.553	WB	NB Mather Field	Ramp Meters	LP	Existing					Part of ICM
SAC	050	R	9.753	WB	Mather Field Rd	DMS/Off Ramp		Future				New Install	

SAC	050	R	10.103	WB	White Rock Rd	CCTV	PTZ	Future				New Install	90' Lowerable CCTV Pole. Install next to TMS Cabinet.
SAC	050	R	10.170	WB	White Rock Rd.	Detection	LP	Existing	Fiber			Upgrade	
SAC	050	R	10.638	EB	Zinfandel Drive	OMS/Off Ramp		Future				New Install	
SAC	050	R	10.850	EB	SB Zinfandel Dr.	Ramp Meters	LP	Existing	Fiber			Upgrade	
SAC	050	R	10.88	EB	US 50 EB/Zinfandel Road	Traffic Signal		Existing				Upgrade	(Part of ICM) Signal Controller Upgrade
SAC	050	R	10.915	WB	Zinfandel Drive	CCTV	PTZ	Existing				Upgrade	
SAC	050	R	10.96	WB	US 50 WB/Zinfandel Road	Traffic Signal		Existing				Upgrade	(Part of ICM) Signal Controller Upgrade
SAC	050	R	10.961	WB	SB Zinfandel Dr.	Ramp Meters	LP	Existing					
SAC	050	R	10.966	EB	NB Zinfandel Dr.	Ramp Meters	LP	Existing	Fiber			Upgrade	
SAC	050	R	10.989	WB	(NB Zinfandel) On	Ramp Meters	LP	Existing					Part of ICM
SAC	050	R	11.213	WB	Zinfandel Drive	OMS/Off Ramp		Future				New Install	
SAC	050	R	11.736	EB	E. of Zinfandel E	Detection	WVDS	Existing	Fiber			Upgrade	
SAC	050	R	11.937	EB	Kilgore Rd	CCTV	PTZ	Future				New Install	90' Lowerable CCTV Pole
SAC	050	R	12.11	EB	Sunrise Blvd - Ex	OMS/Off Ramp		Future				New Install	
SAC	050		12.233	WB	SB Sunrise Blvd	Ramp Meters	LP	Existing					Part of ICM
SAC	050		12.46	EB	US 50 EB/Sunrise Blvd	Traffic Signal		Existing				Upgrade	(Part of ICM) Signal Controller Upgrade
SAC	050		12.460	WB	NB Sunrise Blvd	Ramp Meters	LP	Existing	Fiber			Upgrade	
SAC	050	R	12.462	WB	Sunrise Blvd	CCTV	PTZ	Future				New Install	Replace existing CCTV With 90' Lowerable CCTV Pole. New to build D 3115 Test Site. This Site should have CCTV Pole, MVDS Pole, TMS Tower. Need to build a Large Covered pad and big MVP. Possibly build a Fence around it.
SAC	050		12.54	WB	US 50 WB/Sunrise Road	Traffic Signal		Existing				Upgrade	(Part of ICM) Signal Controller Upgrade
SAC	050		12.55	EB	SB Sunrise Blvd	Ramp Meters		Existing					Part of ICM
SAC	050		12.655	EB	NB Sunrise Blvd	Ramp Meters		Existing					Part of ICM
SAC	050		12.852	WB	Sunrise Blvd - Ex	OMS/Off Ramp		Future				New Install	
SAC	050		13.5	WB	Pyrites Way/Gold River Rd	CCTV	PTZ	Future				New Install	Combine existing MVDS and new CCTV in one Cabinet and Pole. Need new Electrical Utility.
SAC	050	R	13.500	WB	Pyrites Way	Detection	MVDS	Existing	Cellular			Upgrade	
SAC	050		14.2	WB	W. of Canal	CCTV	PTZ	Future				New Install	Combine existing MVDS and new CCTV in one Cabinet and Pole. Need new Electrical Utility.
SAC	050	R	14.200	WB	W. of Canal	Detection	MVDS	Existing	Cellular			Upgrade	
SAC	050		15.07	WB	W. of Hazel Ave	CCTV	PTZ	Future				New Install	Combine existing MVDS and new CCTV in one Cabinet and Pole. Need new Electrical Utility.
SAC	050		15.070	WB	W. of Hazel	Detection	MVDS	Existing	Cellular			Upgrade	
SAC	050		15.489	EB	Hazel Ave - Exit	OMS/Off Ramp		Future				New Install	
SAC	050		15.728	WB	NB Hazel Blvd.	Ramp Meters	LP	Existing					
SAC	050		15.73	WB	US 50 WB/Hazel Avenue	Traffic Signal		Existing				Upgrade	(Part of ICM) Signal Controller Upgrade
SAC	050		15.75	EB	US 50 EB/Hazel Avenue	Traffic Signal		Existing				Upgrade	(Part of ICM) Signal Controller Upgrade
SAC	050		15.753	EB	Hazel Ave	CCTV	PTZ	Existing				Upgrade	Part of ICM

SAC	050		15.816	EB	SB Hazel Blvd.	Ramp Meters		Existing					Part of ICM
SAC	050		15.925	WB	SB Hazel Blvd.	Ramp Meters	LP	Existing					Part of ICM
SAC	050		15.969	EB	NB Hazel Blvd.	Ramp Meters		Existing					Part of ICM
SAC	050		16.021	EB	Aerojet Rd - Exit	DMS/Off Ramp		Future				New Install	
SAC	050		16.084	EB	Aerojet Rd	Detection	LP	Existing	Cellular			Upgrade	
SAC	050		16.086	WB	Hazel Ave - Exit	DMS/Off Ramp		Future				New Install	
SAC	050		16.683	EB	Folsom Blvd - Ex	DMS/Off Ramp		Future				New Install	
SAC	050		16.805	WB	Folsom Blvd.	Ramp Meters	LP	Existing					Part of ICM
SAC	050		16.913	EB	Folsom Blvd.	Ramp Meters		Existing					Part of ICM
SAC	050		16.92	EB	US 50 EB/Folsom Blvd	Traffic Signal		Existing				Upgrade	(Part of ICM) Signal Controller Upgrade
SAC	050		17	EB	Folsom Blvd.	CCTV	PTZ	Existing				Upgrade	Part of ICM
SAC	050		17.01	WB	US 50 WB/Folsom Blvd	Traffic Signal		Existing				Upgrade	(Part of ICM) Signal Communication/Cabinet Upgrade
SAC	050		17.080	WB	Folsom Blvd - Ex	DMS/Off Ramp		Future				New Install	
SAC	050	R	18.300	WB	Iron Point Rd.	CCTV	PTZ	Future				New Install	0
SAC	050	R	18.300	WB	Iron Point Rd.	Detection	AVDS	Existing	Cellular			Upgrade	

INDEX OF PLANS

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

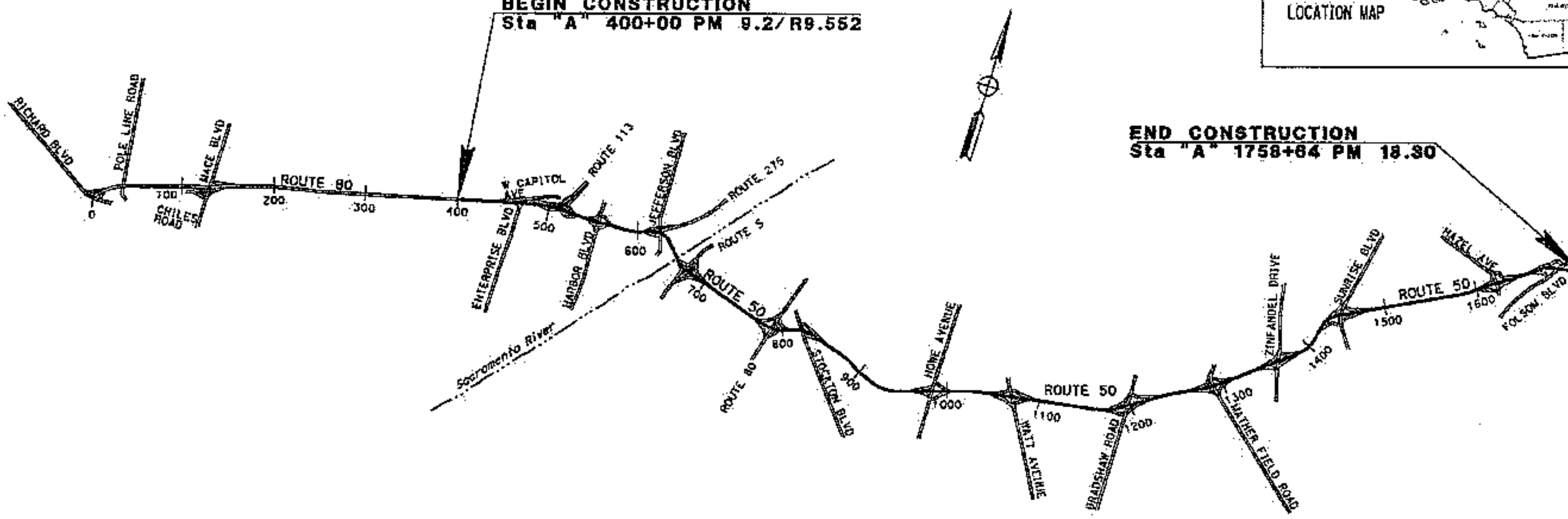
PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN YOLO COUNTY AND SACRAMENTO COUNTY FROM RICHARD BLVD ON ROUTE 80 TO FOLSOM BLVD ON US-50

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2015

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	VAR	50	VAR/VAR		



NO SCALE

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

PROJECT ENGINEER
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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

JONATHAN C. FOO
No. C81054
Exp. 9/30/19
CIVIL

CONTRACT No.	03-3H3304
PROJECT ID	0317000325

DESIGN ENGINEER: LEOBARDO MORALES
PROJECT MANAGER: PERI CLARK

BORDER LAST REVISED 7/2/2010 | CALTRANS WEB SITE IS: HTTP://WWW.DOT.CA.GOV/ | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0325 | PROJECT NUMBER & PHASE 03170003251

12-11-18

ATTACHMENT G

Right of Way Data Sheet

State of California
DEPARTMENT OF TRANSPORTATION

California State Transportation Agency

MEMORANDUM

Making Conservation a California Way of Life.

To: LEOBARDO MORALES
Design Engineer
Department of Transportation

Date: January 28, 2019

File: 03-SAC-50 PM L0.0-17.5, YOL-50 PM 0.0-3.156, YOL-80 PM 9.2-R9.552

EFIS No.: 03 1700 0325
EA: 3H330

Attention: JONATHAN WING
Project Engineer

From: JANEL D. WILSON
Assistant Chief
North Region Right of Way
Marysville

Subject: CURRENT ESTIMATED RIGHT OF WAY COSTS

Project Description: New and upgraded communication, vehicle detection, Changeable Message Sign (CMS), Ramp Metering System (RMS), cameras (CCCTV), Dynamic Message Sign (DMS), Gantries with DMS, and traffic signals.

We have completed an estimate of the right of way costs for the above referenced project based on information received from you on December 3, 2018.

Right of Way Lead Time will require a minimum of 6 months after receipt of appraisals maps, utility conflict maps, environmental clearances (HMDD) and Certificate of Sufficiency (COS) to complete the Right of Way Certification. Shorter lead times may require additional support resources and may adversely affect delivery of Right of Way Certification.

Attachment:
Right of Way Data Sheet

cc. Clark Peri

California State Transportation Agency
RIGHT OF WAY DATASHEET

EA: 3H330
PROJECT NO.: 03 1700 0325
LOCATION: 03-SAC-50 PM L0.0-17.5, YOL-50 PM 0.0-3.156, YOL-80 PM 9.2-R9.552

DESCRIPTION: New and upgraded communication, vehicle detection, Changeable Message Sign (CMS), Ramp Metering System (RMS), cameras (CCCTV), Dynamic Message Sign (DMS), Gantries with DMS, and traffic signals.

DATE: 1/28/2019
DATASHEET TYPE: Initial

---

1. Right of Way Cost Estimate:

	Current Value Future Use	Escalation Rate	Escalated Value
A. Total Acquisition Cost	$0		$0
B. Appraisal Fees Estimate	$0	N/A	$0
C. Mitigation Acquisition & Credits	$105,000	5%	$113,723
D. Project Development Permit Fees	$0		$0
Subtotal	$105,000		$113,723
E. Utility Relocation (State's Share)	$10,000	5%	$10,831
(Owner's Share: $0)			
F. Relocation Assistance (RAP)	$0		$0
G. Clearance/Demolition	$0		$0
H. Title & Escrow	$0		$0
I. Total Estimated Right of Way Cost	$115,000	**Rounded**	**$125,000** *
J. Phase 4 estimated expenses			
Railroad	$0		
Construction Contract Work	$0		

2. Current Date of Project Approval (PA&ED) May 1, 2019
Current Date of Right of Way Certification September 16, 2020

3. Parcel Data:

Type		Dual/Appr	Utilities		Railroad	
X	0		U4 - 1	0	C&M Agreement	0
A	0		- 2	0	Service Contract	0
B	0		- 3	0	Easements	0
C	0	0	- 4	0	Rights of Entry	0
D	0	0	U5 - 7	29	Clauses	1
RR	0		- 8	0		
Total	**0**		- 9	0		

Excess 0

Areas:		Mitigation		Misc. R/W Work	
R/W	N/A	Impacts	1	RAP Displacees	N/A
TCE	N/A	Parcels	0	Clear/Demo	N/A
Excess	N/A	Credits	0	PTE Construct	N/A
Mitigation	N/A	Lump Sum	1	Condemnation	N/A
		Env PTE	0	USA Involvement	No

4. **Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.).**
All work will be performed within the existing RW.

5. **Are any properties acquired for this project expected to be rented, leased, or sold?**
Yes _____ No X

6. **Are RAP displacements required?**
Yes _____ No X

No. of single family N/A No. of business/nonprofit N/A
No. of multi-family N/A No. of farms N/A

Based on Draft/Final Relocation Impact Statement/Study dated N/A
N/A Sufficient replacement housing will be available without last resort housing.
N/A Sufficient replacement housing will not be available without last resort housing.

7. **Is there an effect on assessed valuation?**
Yes _____ No X Not Significant _____

8. **Are there any items of Construction Contract Work?**
Yes _____ No X
There is no Construction Contract Work associated with the project.

9. **Are utility facilities or rights of way affected?**
Yes _____ No X

Names of Utility Companies requiring verification only.
County of Sac SRCSD, Consolidated Communication, Comcast, County of Yolo, City of Sacramento Utility Dept Waste Water, City of West Sacramento, Kinder Morgan, CenturyLink, Verizon, AT&T, PG&E-Electrical, PG&E-Gas, SMUD, Wave Broadband, Wickland Pipelines Sac, Zayo Group, California American Water, City of Rancho Cordova, County of Sacramento - Telecom, Sac Area Sewer Dist, Sacramento Suburban Water Dist, Terradex, TPX Communications, Chevron, City of Rancho Cordova, City of Folsom, Fair Oaks Water Dist, Golden State Water Company, Sprint

Names of Utility Companies requiring involvements.
None.

Additional information concerning Utility Involvement on this project.
According to PE, Jonathan Wing, if any utility conflicts were to arise on this project, the structure that we are installing would be moved to avoid the conflict. The PE also stated that they would try to use utility verification maps from other projects in these areas to help locate facilities. In case the other projects don't have all facility maps pertaining to the areas of this project, a new facility map request will be necessary. Including positive location money in this estimate for the potential need to locate existing underground facilities.

10. **Are railroad facilities or rights of way affected?**
Yes _____ No X Phase 4 Capital **$0**

11. **Are USA Lands or Rights Affected?**
Yes _____ No X Phase 4 Capital **$0**

Agencies Involved:

US Forest Service _____	BLM _____	Army Corps of Engineers _____
National Parks _____	BIA _____	Veterans Administration _____
US Fish & Wildlife _____	GSA _____	_____

Rights or Permissions to acquire:

Easement _____	Special Use Permit _____	Courtesy Letter _____
Right of Way Grant _____	Cooperative Work Agreement _____	Cost Recovery _____
Mineral Agreement _____	Letter of Concurrence _____	Timber Sale _____

12. **Is an RE Office required for the project?**
Yes _____ No X

13. **Were any previously unidentified sites with hazardous waste and/or material found?**
Yes _____ None Evident X

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

No __X__ Optional _____ Mandatory _____

15. Are there potential relinquishments and/or abandonments?

Yes _____ No __X__

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

Yes __X__ No _____

There are existing airpace sites within the project area, but these will not be impacted by the project as proposed.

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

Mitigation estimate (in lieu fee) based upon preliminary information.

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

Yes __X__ No _____

19. Indicate the anticipated Right of Way schedule and lead time requirements.

Right of Way Lead Time will require a minimum of **6** months after we receive final appraisal maps, utility conflict maps, necessary environmental clearances, and freeway agreements have been approved and obtained, to complete the Right of Way Certification process.

20. Assumptions and limiting Conditions: (Check boxes that apply.)

- ☑ Mapping did not provide sufficient detail to determine the limits of the right of way required.
- ☑ Transportation facilities have not been sufficiently designed to determine the damages to any of the remainder parcels affected by the project.
- ☑ Design will secure necessary encroachment permits from local agencies, Reclamation Districts, Central Valley Flood Protection Board, etc. in advance of construction.
- ☑ Project permits are not required for the project.
- ☑ This estimate is based off of preliminary Environmental information.
- ☑ Utility lead time begins after PA&ED is met and we have received conflict maps.
- ☑ All work and access will be within the State's current Right of Way.
- ☑ If the contractor requires a staging area, Standard Specifications (Sections 5-1.32) indicates that the contractor will be responsible for securing locations for staging and storage.

Evaluation Prepared By:

Right of Way: _____ Date 1/28/19

POPPEA DARLING
Associate Right of Way Agent

Recommended: _____ Date 1/30/19

DOUGLAS BORTZ
Senior Right of Way Agent
Project Coordination Branch
Marysville

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

_____ Date 1-30-19

JANEL D. WILSON
Assistant Chief
North Region Right of Way
Marysville

Reviewed By

RW Planning & Management: _____ Date 1/31/19

ERIC YBARRA

State of California
DEPARTMENT OF TRANSPORTATION

California State Transportation Agency

Making Conservation a California Way of Life.

MEMORANDUM

To: CLARK PERI
Project Manager

Date: January 28, 2019

File: 03-SAC-50 PM L0.0-17.5, YOL-50 PM 0.0-3.156, YOL-80 PM 9.2-9.552

Attention: KAYLA GIESE
Assistant Project Manager

EFIS: 03 1700 0325
EA: 3H330

From: JANEL D. WILSON
Assistant Chief
North Region Right of Way
Marysville

Project : New and upgraded communication, vehicle detection, Changeable Message Sign (CMS), Ramp Metering System (RMS), cameras (CCCTV), Dynamic Message Sign (DMS), Gantries with DMS, and traffic signals.

Subject: PRSM Resource Hours for Right of Way

Task	Task Description	ETC	ACTUAL	EAC
K Phase (PID)				
100.05	Project Management-PID Component	-	-	-
150	Develop Project Initiation Document (PID)	-	-	-
O Phase (PA&ED)				
100.10	Project Management-PA&ED Component	10	-	10
160.10	Engineering Studies	51	30	81
160.30	Environmental Study Request (ESR)	-	-	-
165.10	General Environmental Studies	-	-	-
170.10	Permits	-	-	-
170.15	Railroad Agreements	4	-	4
170.25	Agreement for Non Commercial Material Sites	-	-	-
175.10	Public Hearings	7	-	7
180.05	Final Project Report	8	-	8
180.10	Final Environmental Document	-	-	-
1 Phase (PS&E)				
100.15	Project Management-PS&E Component	10	-	10
185.05	Update Project Information	15	-	15
185.20	Engineering Reports	280	-	280
185.25	Right of Way Requirements Determination	4	-	4
205.10	Permits	-	-	-
205.15	Railroad Agreements	-	-	-
205.25	Agreement Material Sites	-	-	-
235.05	Environmental Mitigation	75	-	75
235.10	Detailed Site Investigation for Hazardous Waste	-	-	-
255	Circulate, Review and Prepare Final District PS&E Package	-	-	-
2 Phase (R/W)				
100.25	Project Management-RW Component	15	-	15
195.40	Property Management	-	-	-
195.45	Excess Land	-	-	-
200.15	Approve Utility Relocation Plan	-	-	-
200.20	Utility Relocation Package	-	-	-
200.25	Utility Relocation Management	-	-	-
200.30	Utility Close Out	20	-	20
225.50	Parcel and Project Documentation	20	-	20
225.60	RW Appraisals	-	-	-
225.65	RW Acquisitions	8	-	8
225.70	RW Relocation Assistance	-	-	-
225.75	RW Clearance	-	-	-
225.80	RW Condemnation	-	-	-
245.50	Parcel and Project Documentation	10	-	10
245.60	RW Appraisals	-	-	-
245.65	RW Acquisitions	-	-	-
245.70	RW Relocation Assistance	-	-	-
245.75	RW Clearance	-	-	-
245.80	RW Condemnation	-	-	-
3 Phase (CONSTRUCTION)				
270.25	Construction Contract Administration Work	-	-	-
285	Contract Change Order Administration	-	-	-
	Total Hours for This Project:	537	30	567

ATTACHMENT H

Hazardous Waste Initial Site Assessments

State of California
DEPARTMENT OF TRANSPORTATION

California State Transportation Agency

Memorandum

Date: March 8, 2019

File: 03-Yol, Sac/50, 80/Var
EA: 03-3H330
E-FIS: 0317000325

To: **MASUM A. PATWARY**
Associate Environmental Coordinator

From: **ALAMJIT S. MANGAT**
Office of Environmental Engineering South (OEES)
District 3 - Hazardous Waste

Subject: Hazardous Waste Initial Site Assessment (ISA)

The California Department of Transportation (Caltrans) proposes to improve communications and install ITS elements and connect corridors for this project.

US 50 integrated corridor management implementation plan within Caltrans Right of Way. The project consists of upgrading or installing new traffic operation elements. DMS/GANTRY and IDB overhead sign structures, CCTV & MVDS poles, ramp metering, pull-boxes, and traffic signal upgrades.

The HW project work scope primary components are:

- Possible removal and disposal of hazardous electrical equipment
- Removal and disposal of treated wood waste (TWW)
- Disturbance/excavation of earth/soil
- All work within State R/W
- No thermoplastic/traffic striping removal/disposal

ISA Conclusions:

I. Naturally Occurring Asbestos (NOA)

A geologic evaluation regarding Naturally Occurring Asbestos (NOA) was conducted within the project limits. This evaluation included a review of geologic maps and reports including data prepared by the California Geological Survey (CGS) and the United States Geological Survey (USGS), previous studies conducted by Caltrans and their consultants. The evaluation **does not** indicate the presence of altered ultramafic bedrock, alluvium derived from ultramafic rock, or rock commonly associated with NOA.

II. Cortese List

The Cortese List a compilation of contaminated sites identified by the State of California – State Water Resource Control Board; active, closed, and inactive landfills identified by the Integrated Waste Management Board; and potential hazardous waste sites identified by the Department of Toxic Substance Control. This list was reviewed as part of the initial screening for this project. The list, or a property's presence on the list, has bearing on the local permitting process as well as on

compliance with the California Environmental Quality Act (CEQA). Both the Envirostor and the Geotracker database did not show this area containing any hazardous waste/sources. The proposed project **is not** within or impacting any site on the Cortese List.

III. Treated Wood Waste (TWW)

TWW can occur as post along metal beam guard railing (MBGR), thrie beam barrier, piles, or roadside signs. These wood products are typically treated with preserving chemicals that may be hazardous (carcinogenic) and include but are not limited to arsenic, chromium, copper, creosote, and pentachlorophenol. The Department of Toxics Substances Control (DTSC) requires that TWW either be disposed as a hazardous waste, or if not tested, the generator may presume that TWW is a hazardous waste and must be disposed in an approved treated wood waste facility.

Use **SSP 14-11.14_treated wood waste**.

IV. Aerial Deposited Lead

Aerially deposited lead (ADL) from the historical use of leaded gasoline, exists along roadways throughout California. If encountered, soil with elevated concentrations of lead as a result of ADL on the State highway system right of way within the limits of the project will be managed under the July 1, 2016, ADL Agreement between Caltrans and the California Department of Toxic Substances Control.

Various site investigations have already been performed for other projects near the various stretches of this project. The concentrations of Aerially Deposited Lead (ADL) for the stretch of the entire project are already known; therefore; an ADL study is not needed. The various studies found the first top 1' of the soil to be hazardous. The underlying soil (after 0-1') is non-hazardous.

To address this issue, use **NSSP 14-11.08_ADL at regulated concentrations (hazardous soil)** for the first top 1' of soil & use **NSSP 7-1.02K(6)(j)(iii) _earth material containing lead** for the underlying soil below 1'.

V. Electrical Equipment

California law requires special handling of electrical waste such as ballasts containing polychlorinated biphenyl (PCB), vehicle sensory nodes containing lithium thionyl chloride (LTC) batteries, fluorescent or mercury tubes, bulbs, lamps or other electrical waste regulated by DTSC. Special handling of these materials is required. If disposal of electrical waste is required, please use the following NSSP.

Use **NSSP 14-11.15_electrical waste** to remove and dispose of equipment considered to be hazardous electrical waste.

VI. Estimate of cost and bid items that need to be included in the BEES:

- $3,000 for Lead Compliance Plan

- The cost for "TWW removal "must include a full compensation for removing, handling, storing, transporting, and disposing TWW, including personnel training in the contract price paid per linear foot of TWW removal.

The landfill disposal cost of TWW is estimated at $800.

This extra disposal cost is in addition to the standard "TWW removal" cost.

1000 linear feet of MBGR approximately generates 12,903 lbs. (6.5 Tons) of TWW ($60 disposing fee/Ton x 6.5 tons) + $239 generator ID fee = $629.

The project may be constructed without any other SSP's, NSSP's, or restrictions from OEES. If there are any significant changes to the project scope, or if new information is identified, please contact the OEES, as soon as reasonably possible so the significance of the information and the need for additional studies can be assessed. If you have any questions or comments, please feel free to call me at (530) 741-5521 or email me at alamjit.mangat@dot.ca.gov.

cc: Mohsen Samadzdaeh – Transportation Engineer (electronic copy)
Jonathan Wing – Project Engineer (electronic copy)
Rick Perry – Project Manager (electronic copy)

ATTACHMENT I

Landscape Architect Assessment Sheet

NORTH REGION
LANDSCAPE ARCHITECTURE ASSESSMENT SHEET
03-LAND-0002 (Rev. x/xx)

TO: Jonathan Wing/Mohsen Samadzadeh **FROM: Jeff Juarez** **Unit/Senior: 3325/Leo Morales** **Project Manager: Jim Rogers** **PM Assistant: Felicia Furlong**	**DISTRICT: 03** **DATE: 8/2/2019** **EA: 03-3H330** **ID: 0317000325**	**CO: SAC**	**RTE: 50**	**PM: 5.5-17.83**

CONTRACT SEPARATION:

☒ Roadside work as part of roadway work EA

☐ Roadside work for roadway project to follow under separate EA

PROJECT: HWY 50 ICM Project

FUNDING SOURCE: SHOPP

PROJECT MILESTONE: ☐ PID ☒ PA&ED ☐ PS&E

PROJECT COST (In thousands): 32,000

DISTRICT (x1000) $ 32,000 STRUCTURES (x1000) $ 0

PROJECT DESCRIPTION

As part of the US 50 Integrated Corridor Management Implementation Plan (ICM), this project proposes to improve communications and install ITS elements and connect corridors for this project.

The project consists of upgrading or installing new traffic operation elements, including new and upgraded communication (fiber optic lines), Vehicle Detection, Changeable Message Sign(CMS), Dynamic Message Sign (DMS), Ramp Metering System (RMS), Cameras (CCTV), Gantries with DMS, and upgraded Traffic Signals. The project will be within Caltrans Right of Way.

DMS/ GANTRY and IDB overhead sign structures based on Standard Plan S36; CCTV & MVDS poles that are 90 feet tall and based on ES-16C in Standard Plans; Ramp Metering that includes loops and Signal heads installed on Type 1-B Pole based on ES-7B in Standard Plans; Traffic signal upgrades (Adding Fiber Optics).

SCENIC HIGHWAY STATUS ☐ Officially Designated ☐ Eligible ☒ Not Designated

HIGHWAY PLANTING/IRRIGATION BACKGROUND INFORMATION

LANDSCAPE FREEWAY STATUS	☒ Yes	☐ No
WARRANTED HIGHWAY PLANTING	☒ Yes	☐ No
(E) H2O & POWER AVAILABLE	☒ Yes	☐ No
(E) IRRIGATION IMPACTED	☒ Yes	☐ No
COOP. MAINT. AGREEMENTS	☐ Yes	☒ No
ADJ. TO OUTDOOR ADVERTISING	☒ Yes	☐ No

AREA (Ft^2/ACRE) FOR HIGHWAY PLANTING/IRRIGATION: 30,000 SQFT (0.70 acre)

- Less than one acre of highway planting/irrigation.
- For this LAAS, the PE provided information on the proposed facility locations via KMZ and DGN files, and an Excel spreadsheet. Based on the information, the LAAS anticipates impacts to existing highway planting and irrigation systems at multiple locations. The LAAS estimates that approximately **0.70 acres** of highway planting and associated irrigation systems may be impacted. In addition, the project may create **1.70 acres** of disturbed area (See Stormwater/Erosion Control section). These areas may contain irrigation facilities, such as water supply mainlines and controllers. The LAAS estimates costs associated with repairing/replacing irrigation facilities ($5,000 per location containing irrigation facilities).

NORTH REGION
LANDSCAPE ARCHITECTURE ASSESSMENT SHEET
03-LAND-0002 (Rev. x/xx)

STORMWATER DESIGN/EROSION CONTROL BACKGROUND INFORMATION

SOIL DISTURBANCE	☒ Yes	☐ No
CONCENTRATED FLOW AREAS	☐ Yes	☒ No
SLOPE LOCATIONS	☒ Yes	☐ No
SLOPES > 2:1	☐ Yes	☒ No
BIOFILTRATION	☐ Yes	☒ No

AREA (Ft^2/ACRE) FOR EROSION CONTROL: 73,000 SQFT (1.70 acres)

- ***Erosion control.*** The project will not add any new paving/impervious surface area, however, the project will create up to **1.70 acres** of disturbed area that may require erosion control treatment.
- ***Stormwater compliance/NOT.*** Per the Micro SWDR (March 2019) and Draft Project Report, the project will not require Treatment BMPs. A SWPPP will be prepared and implemented at PS&E to address temporary impacts to water quality. The project area is Risk Level 1; for NOT, only the default 70 percent cover is necessary.

MITIGATION BACKGROUND INFORMATION: Masum Patwary, Env. Coordinator

PROJECT BIOLOGIST: N/A — Contact Date: 8/1/2019

BIOLOGICAL REVEG. REQUIRED	☐ Yes	☒ No	Applicable Permits: N/A
VISUAL IMPACT MIT. REQUIRED	☐ Yes	☒ No	
UNIT TASKED w/ BIO. REVEG.	☐ Landscape Architecture	☐ Stewardship	

MITIGATION PLANTING: N/A

ROADSIDE MAINTENANCE SAFETY NEEDS: N/A

ROADSIDE VEGETATION MANAGEMENT TREATMENT NEEDS: N/A

CONTEXT SENSITIVITY

- ☐ It is determined that the project may involve consideration of community and local involvement.
- ☒ No foreseen issues with community and local involvement

CONSIDER ADDITIONAL AESTHETIC TREATMENT: N/A

COST INFORMATION

EROSION CONTROL (1.70 acres of disturbance; 16 locations)
This item includes disturbed soil areas requiring erosion control treatment.*

	Item No.	Unit	Quantity	Unit Price ($)	Cost ($)	Rounded Cost ($)
Soil Stabilization						
Bonded Fiber Matrix	210250	SQFT	73,000	0.34	24,820	25,000
Move-In/Move-Out	210010	EA	6	753.90	4,523	4,600
Sediment Control						
Fiber Rolls	210350	LF	1,000	5.24	5,240	5,300
				EROSION CONTROL SUBTOTAL		**34,900**

HIGHWAY REPLACEMENT PLANTING (0.70 acres of disturbance; 7 locations)
This item includes impacts to both highway planting and irrigation systems.**

Replacement Highway Planting (with one-year plant establishment)	20XXXX	LS	1	84,284	84,284	84,300
				HIGHWAY REPLACEMENT PLANTING SUBTOTAL		**84,300**

IRRIGATION FACILITIES (9 LOCATIONS)
This item includes impacts only to irrigation facilities.**

Irrigation Facility Repair/Replace	20XXXX	LS	9	5,000	45,000	45,000
				IRRIGATION FACILITY SUBTOTAL		**45,000**

TOTAL ($) **164,200**
% of Project Total 0.5

**Note: See section Stormwater Design/Erosion Control Background Information*
***Note: See section Highway Planting/Irrigation Background Information*

PREPARED BY: _____ DATE: 8/3/19.

CONCURRED BY: _____ DATE: 8/2/19
(Project Manager)

APPROVED BY: _____ DATE: 8/2/19
(Landscape Architecture or Engineering Services Branch Chief)

Caltrans	NORTH REGION LANDSCAPE ARCHITECTURE ASSESSMENT STUDY 0381 Resources Required-SUPPORT	Project Total Cost $ 25-550M
	HWY 50 ICM Project	
	EA: 03-3H330	
	EFIS: 317000325	
	Phase: 0	
	Date: 8/2/2019	

Level 5	Level 6	Task	
100		PROJECT MANAGEMENT	90
	10	PROJECT MANAGEMENT - PA & ED COMPONENT	2
	15	PROJECT MANAGEMENT - PS&E COMPONENT	24
	20	PROJECT MANAGEMENT - CONSTRUCTION COMPONENT	64
160		PERFORM PRELIMINARY ENGINEERING STUDIES AND PREPARE DRAFT PROJECT REPORT	6
	05	UPDATED PROJECT INFORMATION	0
	10	ENGINEERING STUDIES	0
	15	DRAFT PROJECT REPORT	6
165		PERFORM ENVIRONMENTAL STUDIES AND PREPARE DRAFT ENVIRONMENTAL DOCUMENT (DED)	0
	05	ENVIRONMENTAL SCOPING OF ALTS IN PID	0
	10	GENERAL ENVIRONMENTAL STUDIES	0
	25	DRAFT ENVIRONMENTAL DOCUMENT	0
175		CIRCULATE DRAFT ENVIRONMENTAL DOCUMENT AND SELECT PREFERRED PROJECT ALTERNATIVE	0
	10	PUBLIC HEARING	0
180		PREPARE AND APPROVE PROJECT REPORT AND FINAL ENVIRONMENTAL DOCUMENT	0
	05	PREPARE / APPROVE PROJECT RPT & FINAL ENV DOC	0
185		PREPARE BASE MAPS AND PLAN SHEETS	40
	05	UPDATED PROJECT INFORMATION	20
	15	PRELIMINARY DESIGN	20
	25	RIGHT OF WAY REQUIREMENTS DETERMINATION	0
230		PREPARE DRAFT PS&E	150
	05	DRAFT ROADWAY PLANS	6
	10	DRAFT HIGHWAY PLANTING PLANS	104
	35	DRAFT SPECIFICATIONS	16
	40	DRAFT PS&E QUANTITIES AND ESTIMATES	8
	60	UPDATED PROJECT INFORMATION FOR PS&E PACKAGE	16
255		CIRCULATE, REVIEW, AND PREPARE FINAL DISTRICT PS&E PACKAGE	52
	05	CIRCULATED & REVIEWED DRAFT DISTRICT PS&E PKG	12
	10	UPDATED PS&E PACKAGE	16
	20	FINAL DISTRICT PS&E PACKAGE	16
	40	RESIDENT ENGINEER'S PENDING FILE	8
265		AWARDED AND APPROVED CONSTRUCTION CONTRACT	16
270		CONSTRUCTION ENGINEERING AND GENERAL CONTRACT ADMINISTRATION	16
285		CONTRACT CHANGE ORDER ADMINISTRATION	12
	10	FUNCTIONAL SUPPORT (CO)	12
295		ACCEPT CONTRACT, PREPARE FINAL CONSTRUCTION ESTIMATE, AND PREPARE FINAL REPORT	12
	20	PROJECT HISTORY FILE	12
		TOTAL HOURS	394

Prepared By — Date 8/2/19.

Project Manager — Date 8/2/19

Senior Landscape Architect — Date 8/2/19

ATTACHMENT J

Hydraulic Exemption

State of California
DEPARTMENT OF TRANSPORTATION

California State Transportation Agency

Memorandum

Making Conservation a California Way of Life.

To: CHRIS ROCKEY
Hydraulics Branch Chief, (Marysville)
Office of Engineering Services
NR Division of Project Development

Date: July 2, 2019

File: Sac-50 PM L0.0/17.5
District 03-3H330
Project ID:0317000325

From: Mr. Jonathan C. Wing
Project Engineering, North Region
Division of Engineering (M15)

Subject: **DRAINAGE REPORT EXEMPTION**

This project proposes to implement Integrated Corridor Management (ICM) along US 50 from West Sacramento to the eastern limit of the city of Sacramento and then from the city of Sacramento West to Folsom Blvd in the City of Folsom.

There will be no work performed that will alter existing drainage patterns or result in an increase in runoff.

There will be no impact on and therefore no modifications required to existing storm water run-off conveyance facilities. No drainage impact to properties outside State right of way is anticipated. The nature of this project is such that the components of a Drainage Report do not apply.

No Drainage Report is required for this project.

Concur: Russ Pettey for CHRIS ROCKEY 7-5-19
(Signature - District Hydraulics Engineer) (Date)

ATTACHMENT K

Programming Sheet

Programming Sheet

Caltrans

AMS ID: 0317000325 EA: 03-3H330 COUNTY: 59V03 ROUTE: 050 POSTMILE: R0/0

Project Manager: ROGERS, JIM K PM Assistant: FURLONG, FELICIA R Project Nickname: US 50 ICM Infrastructure
Project Description - Long: In Sacramento and Yolo counties; Yolo 80 PM 9.2 / R9.552; Yolo 50 PM 0.0-3.156; Sac 50 PM L0.0 - 17.5
Work Description - Long: Improve communications and install ITS elements.
PPNO: 6250 Program: shopp RPT: No Funding No PROGRAM YR: 2021 Working Days: 200
Open for Time: Yes Subprogram: Transportation Management CT Status: APL RMP: RMP Date:
10 Yr SHOPP: Yes AADD: No Dist SHOPP MAJOR FED Aid Eligible: YES

MS	MS Description	MS Date	
M000	ID NEED	05/16/2017	(A)
M010	APPROVE PID	06/30/2017	(A)
M015	PROG PROJ	03/22/2018	(A)
M020	BEGIN ENVIRO	11/28/2018	(A)
M040	BEGIN PROJ	07/31/2018	(A)
M200	PA&ED	08/13/2019	(T)
M224	R/W REQTS	08/19/2019	(T)
M225	REGULAR R/W	11/15/2019	(T)
M300	CIRC PLANS IN DIST	06/05/2020	(T)
M377	PS&E TO DOE	08/07/2020	(T)
M410	R/W CERT	09/16/2020	(T)
M430	DCR	09/21/2020	(T)
M460	RTL	10/15/2020	(T)
M470	FUND ALLOCATION	12/03/2020	(T)
M480	HQ ADVERT	01/04/2021	(T)
M490	BIDS OPEN	02/03/2021	(T)
M495	AWARD	03/05/2021	(T)
M500	APPROVE CONTRACT	04/05/2021	(T)
M600	CONTRACT ACCEPT	12/01/2023	(T)
M700	FINAL REPORT	11/29/2024	(T)
M800	END PROJ EXP	07/31/2025	(T)
M900	FINAL PROJ	11/01/2027	(T)

Capital Cost Estimates ($k)

	Amount $k	EST Date
Roadway	31601	08/01/19
Structures	0	
Const Total	31601	
ROW	125	07/31/17
Total	31726	

Env CE (CEQA), CE (NEPA)

Funding Info ($k)

Fund Source	PA&ED	PS&E	ROW	CON	ROW Cap	CON CAP
2020201.315	0	0	0	0	200	38400
2010201.315	940	2700	520	3900	0	0
4050201.315	0	0	0	0	0	0
Grand Total:	**940**	**2,700**	**520**	**3,900**	**200**	**38,400**

Capital Cost Estimates ($k)

MS460 FY	2021
CC Escalation %:	3.20%
CC Escalated $:	32,612
ROW CAPITAL:	125
TOTAL:	32,737

PROJECT SUPPORT COSTS ($k)

Phase / Esc. Rate	PRIOR ACT $	FY19/20 ETC (0.00%)	FY20/21 (3.20%)	FY21/22 (3.20%)	FY22/23 (2.00%)	FY23/24 (2.00%)	Future (2.00%)	Total	Sup/Cap%
0	**629**	**353**	**0**	**0**	**0**	**0**	**0**	**982**	**3%**
1	**0**	**1,918**	**636**	**0**	**0**	**0**	**0**	**2,554**	**7.8%**
2	**0**	**32**	**22**	**18**	**18**	**18**	**20**	**129**	**0.39%**
3	**0**	**0**	**251**	**1,088**	**1,110**	**581**	**89**	**3,118**	**9.53%**
						TOTAL SUPPORT COSTS:		6,783	20.72%
						TOTAL PROJECT COSTS:		39,520	

PROJECT SUPPORT PYs

	Division	PRIOR ACT PYS	2019 ETC PYs	2020 ETC PYs	2021 ETC PYs	2022 ETC PYs	2023 ETC PYs	Future ETC PYs	Total ETC PYs
03	ENV	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.04
03	ESR	0.45	0.37	0.13	0.01	0.01	0.01	0.00	0.99
03	ADMN	0.00	0.03	0.00	0.00	0.00	0.00	0.01	0.05
03	CONS	0.00	0.17	1.06	3.75	3.75	1.85	0.21	10.80
03	ENVM	0.18	0.00	0.03	0.01	0.01	0.00	0.00	0.23
03	ESRV	0.07	0.41	0.26	0.01	0.01	0.01	0.00	0.77
03	MTCE	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.04
03	PPM	0.15	0.22	0.03	0.05	0.05	0.05	0.07	0.62
03	PRJD	1.54	1.26	0.23	0.00	0.00	0.01	0.01	3.04
03	RWLS	0.07	0.21	0.04	0.00	0.00	0.00	0.00	0.34
03	SURV	0.22	1.38	0.70	0.74	0.74	0.35	0.06	4.19
03	TROP	0.28	6.47	1.43	0.28	0.28	0.25	0.10	9.08
03	TOTALS :	3.00	10.56	3.91	4.85	4.85	2.53	0.46	30.19
	Division	PRIOR ACT PYS	2019 ETC PYs	2020 ETC PYs	2021 ETC PYs	2022 ETC PYs	2023 ETC PYs	Future ETC PYs	Total ETC PYs
59	PPM	0.00	0.01	0.17	0.00	0.00	0.00	0.00	0.18
59	TOTALS :	0.00	0.01	0.17	0.00	0.00	0.00	0.00	0.18
	Division	PRIOR ACT PYS	2019 ETC PYs	2020 ETC PYs	2021 ETC PYs	2022 ETC PYs	2023 ETC PYs	Future ETC PYs	Total ETC PYs
		0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.03
	TOTALS :	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.03

Programming Sheet

AMS ID: 0317000325 EA: 03-3H330 COUNTY: 59V03 ROUTE: 050 POSTMILE: R0/0

PROJECT TOTALS:	3.03	10.57	4.08	4.85	4.85	2.53	0.46	30.40

Comments:

ATTACHMENT L

Risk Registry

EA 03-3H330 03-3H330 US 50 ICM Seg 2 - ACTIVE RISK REGISTER

Risk 002 Permits RBS: EnvironmentalOwner: Lisa Machado Updated: 8-15-2019

Description: Due to assuming no permits are required, if project scope impacts jurisdictional water the project will require permits, which could potentially increase cost and schedule to complete a higher level document.

Status:

Response Options: This risk will be reevaluated during the Design Phase.

Impacts:

	Cost Impact		Delay Impact		Risk Zone			
Probability	Cap	Sup	Dev	Con	Cap	Sup	Dev	Con
Moderate	Moderate	Moderate	Moderate	Moderate	M	M	M	M

Assessment Notes: 12/13/18: Per Masum Patwary, risk still valid

Risk 003 Electrical Cost (Fiber) RBS: Traffic Ops Owner: Dean Campbell Updated: 8-15-2019

Description: As a result of increasing tariffs, price increases for elements may occur, which would lead to an increase in total project cost.

Status:

Response Options: This risk will be reevaluated during the Design Phase.

Impacts:

	Cost Impact		Delay Impact		Risk Zone			
Probability	Cap	Sup	Dev	Con	Cap	Sup	Dev	Con
Moderate	Moderate	Moderate	Moderate	Moderate	M	M	M	M

Assessment Notes:

Risk 004 ICM Location RBS: EnvironmentalOwner: Lisa Machado Updated: 8-09-2019

Description: As a result of ICM Infrastructure location uncertainty selected locations could come into conflict with sensitive species. As a result, additional surveys, mitigation or additional permits may be necessary, increasing resource and capital costs and delaying the project.

Status:

Response Options: Ability and willingness to relocate within the local area will be key to reducing risk.

Impacts:

	Cost Impact		Delay Impact		Risk Zone			
Probability	Cap	Sup	Dev	Con	Cap	Sup	Dev	Con

	Moderate	Moderate	Moderate	Moderate	Moderate	M	M	M	M

Assessment Notes

Risk 005 Various US-50 Corridor Projects RBS: EnvironmentalOwner: Lisa Machado Updated: 8-15-2019

Description As a result of project overlap with other US-50 corridor projects selected locations will come into conflict. As a result, additional surveys, mitigation or additional permits may be necessary, increasing resource and capital costs and delaying the project.

Status

Response Options Design has coordinated with the PM to avoid project overlap. However, the project scope within the 50 corridor will be reevaluated in the Design phase.

Impacts

	Cost Impact		Delay Impact		Risk Zone			
Probability	Cap	Sup	Dev	Con	Cap	Sup	Dev	Con
High	High	High	High	High	H	H	H	H

Assessment Notes

Risk 006 TOS Screen Element RBS: Design Owner: Leobardo Morales Updated: 8-15-2019

Description As a result of not knowing the non-standard TOS screen element sizes, weights, and specifications, cost for carrying structures and foundation needs will be unknown and their costs not captured in the Structural and Geotech parts of the 11-page estimate. This could lead to inaccurate programming of project needs.

Status

Response Options These elements will be investigated in the beginning of the Design phase and their costs reevaluated.

Impacts

	Cost Impact		Delay Impact		Risk Zone			
Probability	Cap	Sup	Dev	Con	Cap	Sup	Dev	Con
Moderate	High	High	High	High	H	H	H	H

Assessment Notes

Risk 007 Pull Box and Conduit Replacements RBS: Design Owner: Leobardo Morales Updated: 8-15-2019

Description As a result of old pull boxes and conduits failing, purchase and installation of replacements may occur, which would lead to an increase in project costs and a short time extension.

Status

Response Options A field review will be conducted early in the Design phase to evaluate this risk.

Impacts

	Cost Impact		Delay Impact		Risk Zone			
Probability	Cap	Sup	Dev	Con	Cap	Sup	Dev	Con
Low	Low	Low	Low	Low	L	L	L	L

Assessment Notes

Risk 009 Electrical Design RBS: Design Owner: Leobardo Morales Updated: 8-15-2019

Description As a result of the electrical maintenance/TMC request that most of the existing TMS equipment and components be salvaged and delivered to them during construction, additional items may be added in the current project estimate, which would lead to increased project costs.

Status

Response Options A detailed list of the salvageable items TMC wants will be created and incorporated into the Specs of the plans.

Impacts

	Cost Impact		Delay Impact		Risk Zone			
Probability	Cap	Sup	Dev	Con	Cap	Sup	Dev	Con
High	High	High	Moderate	Moderate	H	H	H	H

Assessment Notes