

ROAD REPAIR AND ACCOUNTABILITY ACT OF 2017
PROJECT BASELINE AGREEMENT
Panoche CAPM Pavement Rehabilitation (06-0X270)

Resolution _____

(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 *Panoche CAPM Pavement Rehabilitation (06-0X270)*, effective on, _____ (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 May 13, 2020 meeting the Commission approved the State Highway Operation and Protection Program, and included in this program of projects the *Panoche CAPM Pavement Rehabilitation (06-0X270)*, 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-20-40, "Adoption of Program of Projects for the State Highway Operation and Protection Program", dated May 13, 2020
 - 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
Panoche CAPM Pavement Rehabilitation (06-0X270)


Resolution SHOPP-P-2021-06B

Date

Project Applicant

Date


Implementing Agency



Diana Gomez
Date 3-30-2021

District Director

California Department of Transportation



Toks Omishakin
Date 4-26-2021

Director

California Department of Transportation



Mitchell Weiss
Date 05/19/21

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:	04/08/21 05:58:34 PM
District	EA	Project ID		PPNO	Project Manager		
06	0X270	0618000048		6970	WILEY, MARY J		
County	Route	Begin Postmile	End Postmile	Implementing Agency			
FRE	5	37.2	48.8	PA&ED	Caltrans		
				PS&E	Caltrans		
				Right of Way	Caltrans		
				Construction	Caltrans		
Project Nickname							
Panoche CAPM							
Location/Description							
Near Mendota, from north of Three Rocks Road to south of Panoche Road. Pavement rehabilitation, repair culverts and upgrade Transportation Management Systems (TMS) field elements. (G13 Contingency)							
Legislative Districts							
Assembly:	31		Senate:	12		Congressional:	21
PERFORMANCE MEASURES							
	Primary Asset	Good	Fair	Poor	New	Total	Units
Existing Condition	Pavement	30.0	16.3			46.3	
Programmed Condition	Pavement	46.3				46.3	
Project Milestone						Actual	Planned
Project Approval and Environmental Document Milestone						03/26/21	
Right of Way Certification Milestone							08/02/21
Ready to List for Advertisement Milestone							12/01/21
Begin Construction Milestone (Approve Contract)							07/01/22
FUNDING (Allocated amounts are shaded)							
Component	Fiscal Year	SHOPP					Total
PA&ED	18/19	2,000					2,000
PS&E	20/21	1,300					1,300
RW Support	20/21	210					210
Const Support	21/22	5,200					5,200
RW Capital	21/22	3,100					3,100
Const Capital	21/22	35,900					35,900
Total		47,710					47,710

06 – Fre – 005 – PM 37.2/48.8
EA: 06-0X270 – Project ID: 0618000048
PPNO: 6970, SHOPP ID: 19310
Pavement – SHOPP 201.121
March 2021

Project Report

For Project Approval

On Route Interstate 5

Between 1.9 miles north of Three Rocks Road Undercrossing

And 0.2 mile south of Panoche Road Overcrossing

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:



HUMBERTO ALMAGUER

ACTING CENTRAL REGION DIVISION CHIEF, RIGHT OF WAY

APPROVAL RECOMMENDED:



JEANNIE WILEY, PROJECT MANAGER

PROJECT APPROVED:

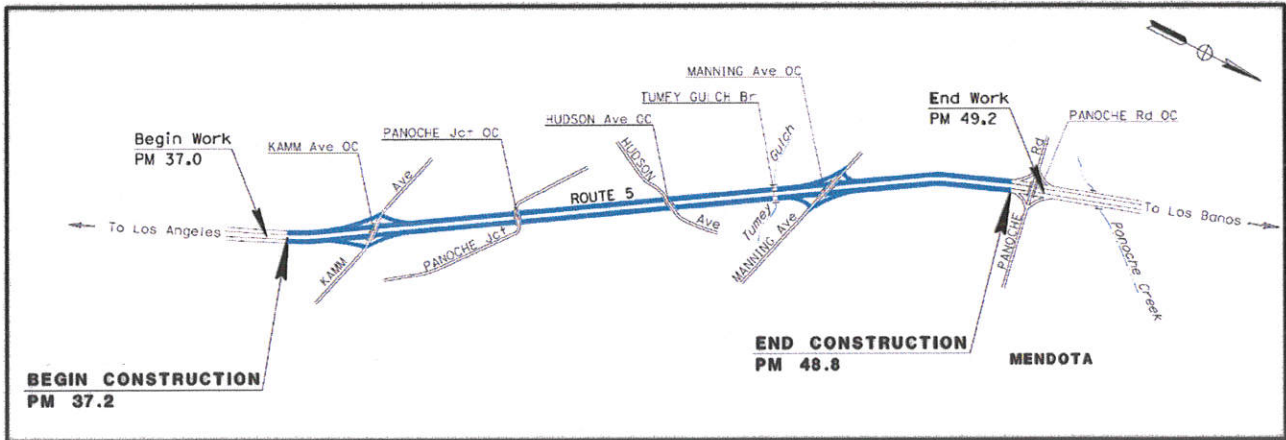


DIANA GOMEZ, DISTRICT 6 DIRECTOR

3-30-2021

DATE

Vicinity Map



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.

Sukhjinder Singh

03/22/2021

SUKHJINDER SINGH
REGISTERED CIVIL ENGINEER

DATE



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1. INTRODUCTION

Project Description:

This minor pavement rehabilitation Capital Preventative Maintenance (CAPM) project proposes to extend the life of the existing pavement on the Northbound (NB) and Southbound (SB) lanes of Interstate 5 (I-5) by removing 0.35' to 0.45' of existing pavement and replacing with 0.15' of Rubberized Hot Mix Asphalt Type Gap-Graded (RHMA-G) and 0.15' to 0.25' of Hot Mix Asphalt Type A (HMA-A) for the mainline. The pavement work for the ramps will consist of removing 0.40' of existing pavement and replacing with 0.35' HMA-A. Other work includes installing inside and outside shoulder rumble strip, upgrading guardrail systems, upgrading existing drainage systems and dikes, upgrading roadside signs, upgrading Intelligent Transportation Systems (ITS) elements, and rehabilitating existing lighting systems. This project covers 11.6 miles of I-5 in rural Fresno County, from 1.9 miles north of Three Rocks Road Undercrossing (UC) to 0.2 mile south of Panoche Road Overcrossing (OC).

A brief summary of the project specifics is displayed in the table below. The Cost Estimate for pertinent work items included in this project is attached (Attachment C) as well.

<i>Project Limits</i>	06-Fre-005 PM 37.2/48.8	
	<i>Current Cost Estimate (\$1000):</i>	<i>Escalated Cost Estimate (\$1000):</i>
<i>Capital Outlay Support</i>	7,900	8,710
<i>Capital Outlay Construction</i>	32,333	35,900
<i>Capital Outlay Right-of-Way</i>	2,805	3,100
<i>Funding Source</i>	SHOPP 201.121	
<i>Funding Year</i>	2021/2022	
<i>Type of Facility</i>	4-lane divided freeway	
<i>Number of Structures</i>	0	
<i>SHOPP Project Output</i>	46.3 lane-miles	
<i>Environmental Determination or Document</i>	Initial Study (IS)/Mitigated Negative Declaration (MND) under the California Environmental Quality Act (CEQA) and Categorical Exclusion (CE) under the National Environmental Policy Act (NEPA)	
<i>Legal Description</i>	In Fresno County from 1.9 mi north of Three Rocks Road UC to 0.2 mi south of Panoche Road OC	
<i>Project Development Category</i>	4B	

2. RECOMMENDATION

It is recommended that the Project Report (PR) be approved using the preferred alternative, and that the project progress to the next phase. The affected local agencies from the Environmental Document have been consulted with respect to the recommended plan, their views have been considered, and the local agencies are in general accord with the plan as presented.

3. BACKGROUND

Project History

Within the limits of the project, there is recurring pavement distress accruing above the original Crack, Seal, and Overlay (CS&OL). The existing pavement within the project limits had a CS&OL completed in 1992 and 1995 as well as layers of RHMA in 2008 and 2015. The underlying RHMA from the work completed in 2008 is stripping. This project will correct the deterioration of the pavement by improving ride quality and serviceability for the traveling public.

Existing Facility

I-5, throughout the project limits, is a 4-lane divided freeway, located in rural Fresno County. The project resides in a relatively flat terrain with a primarily horizontal alignment. The land use through these limits is primarily agricultural. Within the project limits, I-5 consists of 4 on-ramps, 4 off-ramps, and an unpaved 76' median. The existing widths for the inside and outside shoulders are 5 and 10 feet, respectively.

4. PURPOSE AND NEED

Purpose:

The purpose of this CAPM project is to restore the existing facility, a four-lane divided freeway, to a state of good serviceability and improve ride quality with the primary goal being to extend the service life of the pavement structure for the northbound and southbound lanes within the project limits.

Need:

Within the limits of the project, there is moderately extensive pavement structural distress with unacceptable ride quality on the existing flexible pavement which has deteriorated to the extent that a minor pavement rehabilitation is needed. If left uncorrected, the existing pavement will deteriorate to an extent that a major roadway rehabilitation will be needed.

4A. Problem, Deficiencies, Justification

Condition of Existing Facility

Mainline Pavement Condition

The mainline and ramps are constructed of composite and flexible pavement, respectively, which currently have noticeable distress, which will be repaired with the recommended alternative. The condition of the existing pavement was acquired from the generated Pavement Condition Report which is based on Pavement Analysis (PA) fine segmentation from the most current Automated Pavement Condition Survey (APCS) data collected in 2018.

The existing pavement underlying the wearing course is Rubberized Asphalt Concrete (RAC) which is stripping and is resulting in 3”-4” deep potholes. The wearing course is currently RAC Type Open-Graded and can’t bridge the underlying pavement during stripping. The underlying RHMA-G is 12-year-old pavement that was constructed in 2008 under a pavement rehabilitation project (EA: 06-0E0504; 06-Fre-005-PM 37.2/48.9). The pavement surface depicts early signs of distress due to the stripping of the underlying pavement. Since 2014, two Highway Maintenance (HM) projects and three Emergency Contracts have been completed within the project limits. Due to the recent work within the project limits, the pavement distresses are not accurately being reflected in the Automated Pavement Condition Report (APCR). Based on the high truck traffic and pavement engineering adjustment knowledge, future pavement failure and potholes are anticipated by Ready-to-List (RTL) in Fiscal Year (FY) 2023/2024 if this project isn’t programed as identified in the proposed schedule. Alongside, maintenance costs have increased due to the continued work of Maintenance Forces and Maintenance/Emergency projects on this section of roadway. This proposed project will prevent further pavement deterioration, costly future repairs, improve ride quality, extend pavement service life, and reduce field maintenance personnel’s exposure to moving traffic by restoring the facility to a state of good repair. It is important to note, that pavement conditions referenced in this PR were generated using most recent APCS data available at the time of this report. Actual pavement conditions may have since changed.

I-5, within Fresno County, provides primary access for the movement of people, goods, and services through the Central Valley of California. I-5 is considered a major lifeline transportation route for industrial, commercial, and agricultural products of the communities in the Central Valley. The distress of the existing flexible pavement, generated from the Pavement Condition Report, is shown in the table below.

Type	Extent	
	Current APCS Yr (2020/2021)	RTL Yr (2021/2022)
	(06-Fre-005-PM 37.2/48.8)	(06-Fre-005-PM 37.2/48.8)
Alligator B Cracking (%)	1.73	2.87
Rutting (inches)	0.07	0.07
International Roughness Index (IRI, inches/mile)	77	79
Patching* (%)	N/A	Not applicable
Nonstructural Cracking* (Longitudinal, Transverse, or Block)	N/A	Not applicable
Other* (raveling, bleeding, pumping etc.)	N/A	Not applicable

* Include minor distresses only if necessary, such as to supplement low effectiveness or cracking values.

Pavement Performance Measures

Year	Pavement Type	Caltrans Performance Measures (lane-miles)					MAP-21 Condition (lane-miles)			Total Lane Miles	Effectiveness (%)	
		Green	Yellow	Blue	Orange	Red	Good	Fair	Poor		SHOPP Effectiveness ((Red + Orange) / Total Lane Miles) %	Rehab Effectiveness (Red / Total Lane Miles) %
Current APCS	Flexible	37.449	8.845	0.00	0.00	0.00	43.40	2.944	0.00	46.344	0.00	0.00
RTL Delivery	Flexible	0.00	46.344	0.00	0.00	0.00	43.40	2.944	0.00	46.344	0.00	0.00

Drainage Culvert Condition

The recommendations in the State Highways Culvert Inventory Report, Attachment H, will be incorporated in this project which includes:

- Upgrading 109 existing drainage system:
 - 2 headwall repairs
 - 6 culvert replacements
 - 1 regrade channel
 - 7 section repairs
 - 3 joint repairs
 - 23 Flared End Section (FES) replacements
 - 97 culvert barrel linings

During the Project Initiation Document (PID) phase, Maintenance supervisor mentioned a flooding concern on the mainline, just south of Kamm Avenue (Fre-005-PM 38.359; Br No. 42-243), due to clogging of the 48" culvert under the SB On-Ramp from Kamm Avenue during heavy rainfall within previous two years. Recommendations for the existing 24" Corrugated Steel Pipe (CSP) culvert under the SB On-Ramp and the 48" CSP culvert under the mainline include culvert barrel lining and installing debris structure at the end treatments.

4B. Regional and System Planning

The functional classification for this segment of I-5, per the February 2013 Transportation Concept Report (TCR), is a Principal Arterial facility. The Ultimate Transportation Corridor (UTC) for this segment is an 8-lane freeway by Year 2040. I-5 is a Surface Transportation Assistance Act (STAA) national network route and is part of the Strategic Highway Network (STRAHNET). The 2014 Level of Service (LOS) was a C, and the predicted LOS by 2040 is F without improvement.

Within the vicinity of the project limits, the following projects are programmed:

- A bridge rehabilitation project (EA: 06-0S830; Fre-005-PM 44.0/45.0) is currently in the PS&E phase and is expected to RTL in 2022. This project is in Fresno County from 1.2 miles north of Hudson Avenue Overcrossing to 0.4 mi south of Manning Ave. Overcrossing. The purpose of the project is to address deficiencies of the existing Tumey Gulch bridges (Fre-005-PM 44.934; Br No. 42-246). Coordination with the Bridge Rehab project is required to ensure that no construction delays or conflict will arise for both projects.

Within the vicinity of the project limits, the following projects were completed:

- A pavement preservation project (EA: 06-0U080; Fre-005-PM 21.0/31.0) was completed in 2019 to cold plane 0.20' of existing pavement and replace with 0.10' RHMA-G and 0.15' HMA and repaired localized areas of distressed Portland Concrete Cement (PCC) panels.
- A rehab project (EA: 06-0V140; Fre-005-PM 37.2/48.6) was completed in 2016 to cold plane and resurface the pavement with a layer of RHMA (Gap Graded - Bonded Wearing Course) on the number 2 lane and outside shoulder in both directions.
- A rehab project (EA: 06-0R240; Fre-005-PM 37.1/41.7 & 44.9/46.5) was completed in 2014 to cold plane and resurface the pavement with a layer of RHMA (Gap Graded - Bonded Wearing Course) on the #2 lane and outside shoulder for the northbound lanes.

Within the same corridor, the following projects are programmed:

- A minor pavement rehabilitation project (EA: 06-0X280; Fre-005-PM 60.1/6) is currently in PA&ED and is expected to RTL on 10/17/2022. For the mainline and ramps, this project proposes to cold plane 0.25' of existing pavement and replace with 0.20' of HMA and 0.15' of RHMA. Other work includes guardrail replacement, roadside sign, ITS elements, lighting, and rumble strip.
- A pavement-focused roadway rehabilitation (EA: 06-0Y370; Fre-005-PM 11.0/21.0) is expected to program project on 07/01/2022 and RTL on 08/01/2025. For the mainline, this project proposes to cold plane 0.45' of existing pavement and replace with 0.20' of RHMA-G, 0.15' of HMA, Geosynthetic or Rubberized Pavement Interlayer, and 0.10' of HMA and to replace the localized areas of distressed PCC panels. No ramps will be included in this project, but other work includes guardrail replacement, drainage systems, roadside sign, ITS elements, lighting, and rumble strip.

4C. Traffic

Current and Forecasted Traffic

The posted speed limit along this segment is 70 mph. The 2014 Annual Daily Traffic (ADT) within the project limits was 37,500 and is predicted to be 73,500 by year 2041. Truck traffic consists of over 28% of the ADT. The Design Hourly Volume (DHV) for the 10 and 20-year design periods are 8,600 and 10,900, respectively. Design Designation and Traffic Index (TI), on I-5 within the project limits, are as follows:

<i>Locations</i>	<i>2021 ADT (RTL Yr)</i>	<i>2031 ADT (10 Yr)</i>	<i>2041 ADT (20 Yr)</i>	<i>TI (10 Yr)</i>	<i>TI (20 Yr)</i>
I-5 (PM 37.2/48.8)	45,500	58,000	73,500	14	15.5

Collision Analysis

The collision rates for the most recent three-year period (1/1/2017 to 12/31/2019) for the 11.6-mile segments of freeway is shown below:

<i>Location</i>	<i>Actual (Collisions per Million Vehicle-Miles)</i>			<i>Statewide Average (Collisions per Million Vehicle-Miles)</i>		
	<i>Fatal</i>	<i>F+I</i>	<i>Total</i>	<i>Fatal</i>	<i>F+I</i>	<i>Total</i>
SB I-5 (PM 37.2/48.8)	0.00	0.06	0.20	0.009	0.16	0.47
NB I-5 (PM 37.2/48.8)	0.000	0.07	0.21	0.009	0.16	0.47

Abbreviations:

F+I – Fatal plus injury collisions

MVM – Million Vehicle-Miles

This table shows that the actual F+I and Total collision rates are lower when compared with the statewide average collision rates for a similar freeway segment with comparable traffic volumes. During the most recent 36-month study period along I-5, within these project limits, Traffic Accident Surveillance and Analysis System (TASAS) Table B reported 58 and 51 collisions in the northbound and southbound segments, respectively. The Table B reported 0 fatal collisions along the northbound and southbound segments of the freeway. A review of the collision data reveals that the types-of-collisions are mostly distributed between *Rear-End* (39%), *Side-Swipe* (21%), *Over-Turn* (17%), and *Hit Object* (14%). These four types of collisions account for 91% of the total 109 collisions. The collision data also reveals that the primary collision factors are mostly distributed between *Improper Turn* (46%), *Speeding* (34%), *Other Than Driver* (7%), and *Other Violations* (6%). These four primary collision factors account for 93% of the total 109 collisions. All but 15 of the total 109 collisions occurred during clear weather; and all but 8 of the total 109 collisions occurred with a dry road surface. Forty-eight of the total 109 collisions (43%) occurred during dark or low-light conditions.

The collision rates for the most recent three-year period (1/1/2017 to 12/31/2019) for the 8 ramps, within the project limits, is shown below:

<i>Location</i>	<i>Actual (Collisions per Million Vehicles)</i>			<i>Statewide Average (Collisions per Million Vehicles)</i>		
	<i>Fatal</i>	<i>F+I*</i>	<i>Total</i>	<i>Fatal</i>	<i>F+I*</i>	<i>Total</i>
NB Off-Ramp to Kamm Avenue	0.00	0.00	0.00	0.012	0.49	1.35
SB On-Ramp from Kamm Avenue	0.00	0.00	0.00	0.017	0.24	0.64
NB On-Ramp from Kamm Avenue	0.00	0.00	1.49	0.017	0.24	0.64
SB Off-Ramp to Kamm Avenue	0.00	1.44	1.44	0.012	0.49	1.35
NB Off-Ramp to Manning Avenue	0.00	5.62	5.62	0.012	0.49	1.35
SB On-Ramp from Manning Avenue	0.00	9.43	9.43	0.017	0.24	0.64
NB On-Ramp from Manning Avenue	0.00	0.00	0.00	0.017	0.24	0.64
SB Off-Ramp to Manning Avenue	0.00	0.00	0.00	0.012	0.49	1.35

Abbreviations:

F+I – Fatal plus injury collisions

MV – Million Vehicles

For 4 ramps within the project limits, this table shows that the actual F+I and Total collision rates are lower when compared with the statewide average collision rates for similar ramp configurations with comparable traffic volumes. For the other 4 ramps, this table shows that the actual F+I and Total collision rates are higher when compared with the statewide average collision rates for similar ramp configurations with comparable traffic volumes.

During the most recent 36-month study period along I-5, within these project limits, TASAS Table B reported a total of 4 collisions and no fatal collisions for the 8 ramps locations. One collision was reported at each of the 4 ramps that showed higher actual collision rates compared to the statewide average collision rates. Given the nature of these accidents that occurred on four of these eight ramps, these four accidents can be considered anomalies that were due to driver error. A review of the collision data reveals that the types-of-collisions are distributed between *Side-Swipe* (25%), *Broadside* (25%), *Over-Turn* (25%), and *Hit Object* (25%). The collision data also reveals that the primary collision factors involved *Speeding* (25%), *Failure to Yield* (50%), and *Improper Turn* (25%). All but 1 of the total 4 collisions occurred during clear weather; and half of total 4 collisions occurred during dark or low-light conditions.

5. ALTERNATIVES

5A. Viable Alternatives

Alternative A - CAPM strategy:

This CAPM project proposes to preserve and extend the life of the existing pavement for the northbound and southbound lanes of I-5, in Fresno County from 1.9 miles north of Three Rocks to 0.2 mile south of Panoche Road.

The proposed project work is as follows:

- Preserve the pavement on the mainline and the on and off ramps
 - Mainline - SB (PM 37.2 to PM 44.9) & NB (PM 37.2 to PM 45.8): Cold Plane 0.35' of existing pavement and replace with 0.15' of RHMA-G overlaying 0.15' of HMA-A

- Mainline - SB (PM 44.9 to PM 48.8) & NB (PM 45.8 to PM 48.8): Cold Plane 0.45' of existing pavement and replace with 0.15' of RHMA-G overlaying 0.25' of HMA-A
- Replace localized areas of distressed PCC panels
- Ramps: Cold plane existing RAC by 0.40' and apply an 0.35' HMA overlay
- Install inside and outside shoulder rumble strip and tapered edge
- Upgrade 10 guardrails systems
- Upgrade 109 existing drainage system:
 - 2 headwall repairs
 - 6 culvert replacements
 - 1 regrade channel
 - 7 section repairs
 - 3 joint repairs
 - 23 FES replacements
 - 97 culvert barrel linings
- Install/Upgrade 15 ITS elements
 - 2 proposed Closed-Circuit Televisions
 - 1 existing Changeable Message Sign
 - 8 existing Traffic Census Stations
 - 4 proposed Vehicle Detection Systems
- Upgrade roadside signs and dike
- Rehabilitate 2 existing lighting systems

Proposed Engineering Features

The proposed lighting work will include LED replacements and light head replacements at the interchanges at Manning Avenue and Kamm Avenue. All signs, new or existing within the limits of the project, shall include retroreflective sheeting complying with American Society for Testing and Materials D4956-13 (ASTM) Type XI, with the exception of white background signs. Enhanced wet-night visibility striping will be incorporated.

All pavement engineering adjustment knowledge shall be incorporated with enhanced wet-night visibility striping. The existing MBGR shielding the columns in the median and the outside, within the project limits, will be removed and replaced with Midwest Guardrail System (MGS). The existing sand filled crash cushion arrays shielding the approach ends will also be replaced with new crash cushions that satisfy the National Cooperative Highway Research Program (NCHRP) Manual for Assessing Safety Hardware (MASH) Test Level 3 (TL-3) criteria.

There are various existing ITS elements within the project limits which will require modification and there are several other proposed ITS elements. The need to replace or install new systems are as follows:

<i>Element</i>	<i>Postmile</i>	<i>Location</i>
Proposed VDS	38.1	South of Kamm Avenue
Existing TCS	38.184	NB Off-Ramp to Kamm Avenue
Existing TCS	38.247	SB On-Ramp to Kamm Avenue
Existing TCS	38.45	NB On-Ramp to Kamm Avenue
Existing TCS	38.53	SB Off-Ramp to Kamm Avenue
Proposed CCTV	38.53	At Kamm Avenue OC
Proposed VDS	41.03	At Jerrold Avenue
Proposed VDS	44.29	At Dinuba Ave
Existing TCS	45.588	NB Off-Ramp to Manning Avenue
Proposed CCTV	45.59	At Manning Avenue
Existing TCS	45.699	SB On-Ramp to Manning Avenue
Existing TCS	45.897	NB On-Ramp to Manning Avenue
Existing TCS	46.007	SB Off-Ramp to Manning Avenue
Existing CMS	47.27	South of Panoche Road
Proposed VDS	47.27	South of Panoche Road

Note: Abbreviations for ITS elements:

CCTV – Closed Circuit Television

CMS – Changeable Message Sign

TCS – Traffic Census Station

VDS – Vehicle Detection System

Nonstandard Design Features

CAPM projects that are consistent with the scope of intent of the 201.121 Program, as per DIB 81, do not require design standard decision documents for existing design standard deviations. However, pavement engineering design standards still apply to CAPM projects. There is no anticipated deviation from the geometric design standards within the project limits, as CAPM projects are not intended to change existing geometric features. No design standard decision document is needed for this phase.

Ramp Metering

There is no existing ramp metering present at the 4 on-ramps, within the project limits. Alongside, there are no ramps identified in the 2017 Ramp Metering Development Plan (RMDP) to have ramp metering installed.

California Highway Patrol (CHP) Enforcement Activities

CHP will be present during construction especially during night work and lane/ramp closures. Construction Zone Enhance Enforcement Program (COZEEP) will be required for the project.

Park-and-Ride Facilities

There is no park-and-ride facility within a 5-mile radius of I-5, through these project limits.

Utility Involvement

Based on a preliminary permit search and field review observation, there are existing utility joint poles with electric overhead (OH) lines and underground (UG) pipes present within the project limits. The approximate locations, types, and owners are as follows:

<i>PM</i>			<i>Type</i>	<i>Company</i>
33.6	-	40.3	Pipe Casing with Oil Carrier Pipeline Under Natural Drainages	Tidewater Oil Company
38.1	-	38.1	Electrical OH Conductors	PG&E
39.41	-	39.41	High Pressure Gas Main Line and Serial Telephone Line	PG&E
44.3	-	44.3	UG Oil Pipeline	Shell Pipeline Company
44.31	-	44.31	Electrical OH Lines	PG&E
45.4	-	66.2	Aerial Electric Transmission Facilities	PG&E
45.4	-	66.2	UG Irrigation Water Distribution Facilitation	San Luis Water District
45.79	-	66.46	Electrical OH Wires	PG&E
47.26	-	47.26	12 Kv Conductors	PG&E
47.95	-	47.95	8" Diameter Pipe Casing And 4" Water Line	Coit Ranch, Inc
48.8	-	48.8	60" Reinforced Concrete Pipe	Chevron Land Company
48.8	-	48.8	Aluminum Irrigation Pipeline	L&M Farms

Utility verification is currently underway and will continue into the PS&E stage. Based on the current project scope and utility investigations, conflicts with existing utilities are not anticipated. However, there is proposed culvert replacement work adjacent to an existing Shell Oil pipeline near PM 44.3 that will require positive location. Other high priority utilities within the project limits include PG&E high pressure gas pipelines near PM 39.41 and PM 40.8.

Railroad Involvement

There are no railroads facilities within the project limits; therefore, no railroad involvement.

Highway Planting

This project does not propose any highway planting work within the project limits.

Erosion Control

Erosion Control treatment, Hydroseed and Hydromulch, for all work will be included within the project limits.

Nonmotorized and Pedestrian Features

Pedestrian access is not allowed and there are no pedestrian facilities within the project limits. There are no signs prohibiting pedestrian access on the northbound and southbound on-ramps at the Kamm Avenue OC (Fre-005-PM 38.359; Br No. 42-243). Signs prohibiting pedestrian access will be incorporated into this project.

Needed Roadway Rehabilitation and Upgrading

The mainline and ramps, within the project limits, currently have noticeable distress and unacceptable ride quality which will be repaired with the recommended alternative. This project proposes to treat the existing pavement with structural distress by removing 0.35' to 0.45' of existing pavement and replacing with 0.15' of RHMA-G and 0.15' to 0.25' of HMA-A. Alongside, localized areas of distressed PCC panels will be replaced. The pavement work for the ramps will consist of removing 0.40' of the existing pavement and replacing with 0.35' HMA-A.

Needed Structure Rehabilitation and Upgrading

There are four overcrossings and one bridge within the limits of this projects. This project does not propose any structural work to the existing structures or to change the roadway profile of the existing facility under these structures, therefore the vertical clearances will not be altered. A bridge rehabilitation project (EA: 06-0S830; Fre-005-PM 44.0/45.0) will address settlements at the abutments and approach slabs for the Tumey Gulch Bridge (Fre-005-PM 44.934; Br No. 42-246).

<i>Structures</i>		<i>Vertical Clearance</i>		
<i>Name</i>	<i>Number</i>	<i>Existing (ft)</i>	<i>RRR Standard (ft)</i>	<i>Proposed (ft)</i>
Kamm Avenue OC	42-243	17'1"	16'6"	17'1"
Panoche JCT Utility Road OC	24-244	17'2"	16'6"	17'2"
Hudson Avenue OC	42-245	16'3"	16'6"	16'3"
Tumey Gulch Bridge	42-246L, R	NA	NA	NA
Manning Avenue OC	42-247	16'4"	16'6"	16'4"

Cost Estimates

For this alternative, the current construction capital and right-of-way costs are estimated at \$32.3 million and \$2.8 million, respectively. The escalated construction capital and right of way costs are \$35.2 million and \$3.1 million, respectively. These costs are reflected in the cost estimate is shown as Attachment C in this report.

Right-of-Way Data

An estimate of the right of way costs for this project was prepared and is shown as the Right-of-Way Data Sheet, Attachment F, in this report.

5B. Rejected Alternatives

Alternative B – No Build

There are no proposed improvements in the No Build Alternative as the existing pavement will remain unchanged. Doing nothing will allow the existing pavement to continue deteriorating to a point that will require more extensive repairs, such as a major roadway rehabilitation. The No Build Alternative will not satisfy the purpose and need of the project.

6. CONSIDERATIONS REQUIRING DISCUSSION

6A. Hazardous Waste

Due to Aerially Deposited Lead (ADL) concerns, a Preliminary Site Investigation (PSI) was required since excess soil cannot be reused/spread out on-site. The PSI was conducted on December 13, 2019 which resulted in No Impact significance determinations for Hazards and Hazardous Materials.

6B. Value Analysis

Since this project exceeds the project cost threshold of \$25 million, a Value Analysis (VA) was conducted in the PA&ED phase. Four recommendations were accepted by the VA team for consideration:

- Recommendation 1: Improves drainage inlets to reduce proposed culvert sizes
- Recommendation 2: In lieu of replacing two culverts at the Kamm Avenue interchange, line and install debris structures
- Recommendation 3: Use SR 33 to SR 152 as a detour to complete drainage work
- Recommendation 4: Use HMA on ramps in lieu of RHMA

The recommendations mainly focus on the drainage portion of the project. The recommendations will improve constructability with an open cut culvert replacement method. Moreover, the open cut method is anticipated to reduce environmental impacts and mitigations that will be needed. Findings from the Value Analysis reveal a net effect improvement of the baseline design performance by 7%.

6C. Resource Conservation

Most of Asphalt Concrete (AC) grindings will be transported off-site and become property of the contractor. AC cold planed material will be reused as shoulder backing. No need for disposal sites has been determined but their need will be further evaluated in the PS&E phase. RHMA-G will be utilized for the final lift of the pavement on the mainline within the project limits. RHMA-G contains crumb rubber which is generated from shredding recycled tires.

6D. Right-of-Way Issues

Right-of-Way Required

The existing width of the State Right-of-Way (R/W) within the project limits ranges from 208' to 444' along I-5. Presently it is expected that the Department will be able to purchase mitigation bank credits from United States (U.S.) Fish and Wildlife; therefore, a mitigation parcel may not be needed. However, funding has been constrained for the parcel in the event that the bank credits do not become available and has been incorporated into the Right-of-Way Cost Estimate, Attachment F. Right of way milestones have been incorporated into the project as needed.

6E. Environmental Compliance

An Initial Study with Mitigated Negative Declaration has been prepared in accordance with Caltrans' environmental procedures, as well as State and federal environmental regulations. The Initial Study with Mitigated Negative Declaration, Attachment E, has determined that this proposed project would not have a significant effect on the environment. The project is Categorically Excluded under the National Environmental Policy Act. Caltrans is serving as the NEPA lead agency under its assumption of responsibility pursuant to 23 U.S. Code 326.

The project will impact a high potential paleontological resource. While there are no documented cases of paleontological sites/vertebrate fossil finds being discovered within the area of the project, excavation will impact geologic formations that have yielded scientifically significant paleontological specimens in the Central Valley. Caltrans will implement a paleontological mitigation plan designed to reduce project impacts on paleontological resources to below the level of significance pursuant to CEQA.

6F. Air Quality Conformity

Air quality conformity is not required.

6G. Title VI Considerations

Title VI of the Civil Rights Act of 1964 states:

“No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.”

All considerations under Title VI of the Civil Rights Act of 1964, and related statutes, must be included in the project. Because the project involves a minor pavement rehabilitation, impacts to minority or low-income populations are not expected.

6H. Noise Abatement Decision Report

A Noise Compliance Study was conducted on April 17, 2020 which resulted in a No Impact significance determination for noise.

6I. Life-Cycle Cost Analysis

Per the Life-Cycle Cost Analysis (LCCA) Procedures Manual, dated 2013, a Life-Cycle Cost is not required for CAPM projects.

6J. Reversible Lanes

This project does not qualify as a capacity increasing or a major street or highway realignment project and reversible lanes have not been considered.

This project proposes to preserve and extend the life of the existing pavement with the primary goal of improving the ride quality in rural Fresno County. Providing reversible lanes within the project limits will be outside the project's scope of work.

7. OTHER CONSIDERATIONS AS APPROPRIATE

Public Hearing Process

A public review was conducted for this phase to review the Initial Study that was prepared for this project. The public review period for the Draft Environmental Document (DED) was held between July 2020 and August 2020. No comments from the general public were received. One letter from the California Department of Fish and Wildlife was received and information from that was incorporated, where appropriate, into the Environmental Document.

Permits

The following permits, licenses, agreements, and certifications are required for project construction:

- Clean Water Act Section 401 Water Quality Certification
 - Agency: Central Valley Regional Water Quality Control Board
 - Will be obtained prior to start of construction
- Clean Water Act Section 404 Nationwide Permit
 - Agency: U.S. Army Corps of Engineers
 - Will be obtained prior to start of construction
- 1600 Lake and Streambed Alteration Agreement
 - Agency: California Department of Fish and Wildlife
 - Will be obtained prior to start of construction
- 2081 Incidental Take Permit
 - Agency: California Department of Fish and Wildlife
 - Will be obtained prior to start of construction
- Letter of Concurrence
 - Agency: U.S. Fish and Wildlife Service
 - Letter of Concurrence was received on August 27, 2020.

Transportation Management Plan

Preliminary traffic impacts and mitigation for this project have been outlined in the Transportation Management Plan (TMP) Data Sheet. Costs associated with the traffic impact mitigation measures listed in the TMP Data Sheet have been included in this project estimate.

A TMP for this project is required and will be completed when the design is complete to determine specific traffic impacts. Lane requirement charts and detailed TMP will be provided during PS&E stage. Lane closures are not allowed when the traffic volume is beyond the capacity of the remaining lanes. Nighttime work outside peak hours is anticipated for this project to minimize disruptions. Signing, including Portable Changeable Message Signs (PCMS) and Public Awareness Campaign will be used to inform the public of current and upcoming construction activities. To enhance traffic safety and provide additional protection during construction, Work Zone Speed Reduction System will be incorporated.

Stage Construction

It is anticipated that night work, with one lane closure, per direction, will be required throughout the duration of construction.

Asset Management

The performance objectives of this project include Pavement Class I, Drainage System Restoration, Lighting Rehabilitation, Sign Panel Replacement, and Transportation Management Systems.

This project achieves the performance objectives as follows:

- Pavement Class I: 46.344 lane-miles
 - Removing 0.35' to 0.45' of existing pavement and replacing with 0.15' of RHMA-G and 0.15' to 0.25' of HMA-A
 - Replace localized areas of distressed PCC panels
- Replace/Install Culverts: 7 EA, 1,235.9 LF
- Cure in Place Line Culvert: 97 EA, 12,950.8 LF
- Headwall/Endwall: 6 EA
- Energy Dissipation & Other Elements: 23 EA
- Guardrail: 1,650 LF
 - Upgrade existing MBGR, within the project limits, to MGS for compliance with MASH standards
- Rumble Strip: 244,992 LF
 - Install inside and outside shoulder rumble strip throughout project limits
- Lighting Rehabilitation: 2 EA
 - 2 existing lighting system at Manning Avenue and Kamm Avenue
- Sign Panel Replacement: 162 EA
 - Currently there are 162 roadside sign panels that need replacement
- Changeable Message Sign - Transportation Management Systems: 1 EA
- CCTV - Transportation Management Systems: 2 EA
- Vehicle Detection - Transportation Management Systems: 4 EA

It is anticipated to use locally available building materials and recycled/reclaimed materials within the project limits. The Ten Year SHOPP Tool Printout with the list of performance objectives and activity details is included in Attachment I.

Complete-Streets

Pedestrian access is not allowed and there are no pedestrian facilities within the project limits. Bicycle access is allowed on I-5 within the project limits but there are no bicycle facilities. Bike friendly drainage grates will be installed per Highway Design Manual (HDM) section 837.2.

The Fresno County Rural Transit Agency (FCRTA) provides transit to the cities of Firebaugh, Mendota, San Joaquin, and Kerman by way of Southeast Transit and Westside transit. FCRTA provides fixed routes services which link communities with each other and with the Fresno-Clovis Metropolitan area. Fixed route and/or demand response is provided through public, private, or non-profit entities.

Climate Change Consideration

This project will generate the following Construction & Maintenance Green House Gas (GHG) Emissions:

1. 860 MT CO₂e Unmitigated GHG Emission
2. 612 MT CO₂e Proposed Mitigated GHG Emission, a 28.8% reduction in GHG emissions due to alternative construction and maintenance techniques.

Disclaimer: The resulting GHG emission calculation was obtained using the Federal Highway Administration (FHWA) Carbon Estimator Tool. This is an estimate using data inputs in the PA&ED phase, before details about specific facility dimensions, materials and construction practices are known. The tool may not be appropriate to inform engineering analysis and pavement selection. This term mitigation relates only to the limited number of items used in the FHWA Infrastructure Carbon Estimator (ICE) tool as GHG reduction measures and does not necessarily reflect all measures that could be included in the development process to reduce greenhouse gas emissions. Nor does the use of the word mitigation apply to the CEQA or NEPA process/ determination for the proposed project.

Broadband and Advance Technologies

Caltrans does not have a Fiber Optic business need with this project. In accordance with AB1549, Broadband Stakeholders can request consideration for Fiber Optic conduit installation as part of the project. Broadband Stakeholders shall bear 100% of all Capital Construction costs and Capital Outlay Support costs pertaining to Fiber Optic conduit installation. The Project Development Team (PDT) shall consider such a request to determine impacts to schedule and cost of proposal.

Floodplain

I-5, within the project limits, are in Flood Insurance Map (FIRM) “*Other Flood Areas*” with further classification of “*Zone X*” on Maps 0619C1975H, 0619C2475H, and 06019C2500H dated February 18, 2009. This is defined as “*Areas determined to be outside the 0.2% annual chance floodplain.*” Therefore, there is no flooding concern.

Stormwater

To document stormwater quality issues and design decisions made regarding project compliance with the Department’s National Pollutant Discharge Elimination System (NPDES) Permit, a long form Stormwater Data Report (SWDR) has been prepared. A Storm Water Pollution Prevention Plan (SWPPP) is required for this project. The SWPPP will incorporate applicable temporary construction site Best Management Practices (BMPs) within the project limits. Project specific BMP measures will be specified and quantified during the subsequent phases of this project. A Soil Erosion Risk Assessment was performed on this project and it was determined that this project has a Risk Level of 1.

8. FUNDING, PROGRAMMING, AND ESTIMATEFunding

It has been determined that this project is eligible for federal-aid funding.

Programming

The project is programmed in the 2018 SHOPP, Minor Pavement Rehabilitation CAPM (20.XX.201.121) program to be delivered in the 2021/22 fiscal year. The table below identifies the programmed cost. The current construction capital and right of way costs are estimated at \$32,333,000 and \$2,804,591, respectively. The escalated construction capital and right of way costs are \$35,165,200 and \$3,092,062, respectively.

Fund Source	Fiscal Year Estimate for the Programmable Alternative				
	18/19	19/20	20/21	21/22	Total
20.XX.120.121					
Component	In thousands of dollars (\$1,000)				
PA&ED Support	2,000				2,000
PS&E Support			1,300		1,300
Right-of-Way Support			210		210
Construction Support				5,200	5,200
Right-of-Way				3,100	3,100
Construction				35,900	35,900
Total	2,000		1,510	44,200	47,710

*The support to capital cost ratio is 20.5%. The escalation rate is 3.2% for capital costs. An escalation rate of 3.2% in FY 19/20 through 21/22 and 2% each year afterward for all support costs. Right of way capital is escalated at 5%.

Estimate

<i>Totals</i>	<i>Estimate</i>
<i>Pavement Work Subtotal</i>	\$ 14,236,800
<i>Drainage Work Subtotal</i>	\$ 6,207,000
<i>Non-Pavement Work (Includes State-Furnished and Supplemental Work Items)</i>	\$ 7,671,800
<i>Sum of Subtotals</i>	\$ 28,115,600
<i>15% Contingency</i>	\$ 4,217,400
<i>TOTAL PROJECT ESTIMATE</i>	\$ 32,333,000

9. DELIVERY SCHEDULE

<i>Project Milestones</i>		<i>Milestone Date (Month/Day/Year)</i>	<i>Milestone Designation (Target/Actual)</i>
<i>PROGRAM PROJECT</i>	M015	01/31/2019	Actual
<i>BEGIN ENVIRONMENTAL</i>	M020	02/18/2019	Actual
<i>CIRCULATE DPR & DED INTERNALLY</i>	M060	04/30/2020	Actual
<i>APPROVE DPR</i>	M100	07/08/2020	Actual
<i>CIRCULATE DPR & DED EXTERNALLY</i>	M120	07/09/2020	Actual
<i>APPROVE FED</i>	M160	11/01/2020	Actual
<i>PA & ED</i>	M200	03/15/2021	Target
<i>PS&E TO DOE</i>	M377	06/01/2021	Target
<i>RIGHT OF WAY CERTIFICATION</i>	M410	08/02/2021	Target
<i>READY TO LIST</i>	M460	12/01/2021	Target
<i>HEADQUARTERS ADVERTISE</i>	M480	03/01/2022	Target
<i>AWARD</i>	M495	06/01/2022	Target
<i>APPROVE CONTRACT</i>	M500	07/01/2022	Target
<i>CONTRACT ACCEPTANCE</i>	M600	09/06/2024	Target
<i>END PROJECT EXPENDITURES</i>	M800	09/04/2026	Target
<i>FINAL PROJECT CLOSEOUT</i>	M900	09/08/2028	Target

10. RISKS

The PDT has prepared a risk register that identifies risks to carry forward to the PS&E phase. The project risk register, Attachment G, is based on utilizing a qualitative risk analysis approach to rank the risks into high, medium, and low risk categories based on their probability of occurrence and their impact on the project objectives such as schedule, cost, right of way impact, and quality. While probability and impact vary with each one, these risks require close attention throughout the project.

11. EXTERNAL AGENCY COORDINATION

The project requires the following coordination with the following agencies:

- Central Valley Regional Water Quality Control Board
- California Department of Fish and Wildlife
- U.S. Fish and Wildlife Service
- U.S. Army Corps of Engineers.
- Federal Highway Administration (FHWA)

Caltrans and the FHWA will work in partnership to deliver the Federal-aid Highway Program (FAHP) to deliver projects in accordance with Federal requirements. Section 106 of Title 23, United States Code (Section 106), authorizes the State to assume specific project approvals. Caltrans is to assume the FHWA's Title 23 responsibilities for design; plans, specifications, and estimates (PS&E); contract awards; and inspections, with respect to Federal-aid projects on the National Highway System (NHS) if both Caltrans and FHWA determine that assumption of responsibilities is appropriate.

12. PROJECT REVIEWS

Scoping team field review _____	Date <u>April 30, 2018</u>
Scoping team field review attendance roster attached.	
District Program Advisor <u>Rene Sanchez</u>	Date <u>Dec. 28, 2020</u>
Headquarters SHOPP Program Advisor <u>Amy Fong</u>	Date _____
District Maintenance <u>Rene Sanchez</u>	Date <u>Dec. 28, 2020</u>
Headquarters Project Delivery Coordinator <u>Paul Gennaro</u>	Date <u>Dec. 28, 2020</u>
Project Manager <u>Jeannie Wiley</u>	Date <u>Dec. 28, 2020</u>
FHWA _____	Date _____
District Safety Review _____	Date <u>Dec. 12, 2018</u>
Constructability Review _____	Date <u>Dec. 29, 2020</u>
Other _____	Date _____

13. PROJECT PERSONNEL

Name	Title	Phone #
Jeannie Wiley	Project Manager	(559) 978-3234
Ernesto Penuna	Design Manager	(559) 908-9784
Sukhjinder Singh	Project Engineer	(559) 908-9685
Eric Karlson	Construction Manager	(559) 243-3866
Juergen Vespermann	Environmental Manager	(559) 832-0051
David Sherman	Right of Way Manager	(559) 383-5188
Kenneth Fritz	Surveys Manager	(559) 903-4632
Rene Sanchez	Program Advisor	(559) 488-4225

14. ATTACHMENTS

- A. Vicinity Map (Number of Pages: 1)
- B. Typical Cross Section (Number of Pages: 3)
- C. Project Cost Estimate (Number of Pages: 10)
- D. Pavement Condition Report (Number of Pages: 4)
- E. Environmental Document (Number of Pages: 67)
- F. Right-of-Way Data Sheet (Number of Pages: 5)
- G. Risk Register (Number of Pages: 3)
- H. Culvert Recommendation List (Number of Pages: 4)
- I. SHOPP Project Performance Measures (Number of Pages: 1)
- J. Signed Stormwater Data Report – Cover Sheet (Number of Pages: 1)