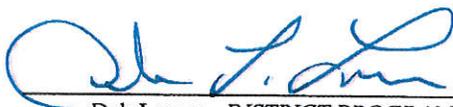


**Small Capital Value Project
Project Initiation Document
To
Request Programming in the 2014 SHOPP**

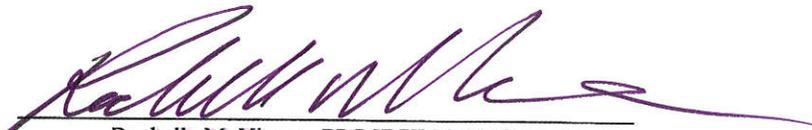
PROJECT LOCATION: In District 5 in Monterey, Santa Barbara, Santa Cruz, and San Luis Obispo Counties on various Routes.

APPROVAL RECOMMENDED:



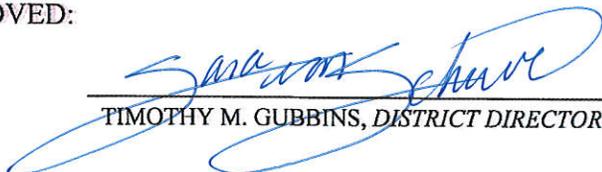
Deb Larson, *DISTRICT PROGRAM MANAGER*

APPROVAL RECOMMENDED:



Rochelle M. Vierra, *PROJECT MANAGER*

APPROVED:


TIMOTHY M. GUBBINS, *DISTRICT DIRECTOR*

6.11.14
DATE

This project initiation document 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.

Kathy M. Di Grazia
REGISTERED CIVIL ENGINEER

6/9/2014
DATE



1. INITIATING OFFICE/INITIATOR

The Program Manager for the Collision Severity Reduction Program has established that a project is needed that meets the qualification for the Program.

This project initiation document provides conceptual approval of the proposal and a recommendation to program the project into the current 2014 State Highway Operation and Protection Program (SHOPP).

A project report will serve as final approval of the proposal.

2. PURPOSE AND NEED

Purpose:

The purpose of this project is to upgrade 54 selected signalized intersections to include countdown pedestrian signal (CPS) heads and accessible pedestrian signal (APS) pedestrian pushbuttons.

Need:

There are 50 signalized intersections on the State Highway System in District 5 with a history of pedestrian collisions as identified through the Traffic Accident Surveillance and Analysis System (TASAS). Additionally, there are four (4) signalized intersections that have requests for upgrading to APS through the Americans with Disabilities Act (ADA) Program grievance process.

3. DEFICIENCY SUMMARY

Attached is a list of signalized intersections that are to be considered for upgrade for CPS/APS.

4. PROJECT PROPOSAL

Project Description:

It is proposed to upgrade 54 selected signalized intersections to include countdown pedestrian signal (CPS) heads and accessible pedestrian signal (APS) pedestrian pushbuttons.

CPS heads provide additional information to pedestrians when compared to the older displays which only use the Walking Person-Flashing Hand-Upraised Hand signals. Studies of the CPS have generally concluded that the device provides information to pedestrians that help them make better informed decisions regarding street crossing. The countdown results in a significantly smaller percentage of pedestrians who have not completed their crossing by the end of the allocated pedestrian clearance time, and thus lead to improved pedestrian safety.

Research has shown APS systems provide an improved crossing performance by visually impaired pedestrians, with significantly more crossings completed before the signal changes. The APS pedestrian pushbuttons would bring non ADA compliant pedestrian signal systems into compliance with federal and state ADA requirements.

R/W:

Most of the CPS/APS improvements will be within State right of way. For those signal systems that are located partially within Local Agency right of way, encroachment permits will need to be obtained.

Disposal Site:

Not applicable

Utilities:

Impact to non Caltrans utilities is not anticipated.

Environmental:

It is anticipated that there will be no environmental impacts.

5. FUNDING/PROGRAMMING

The proposed project is a candidate for amendment into the 2014 State Highway Operations and Protection Program (SHOPP) for delivery in the 2014/15 fiscal year. See the following table for the Capital Outlay Support and Project Estimate. See Section 9 for cost estimate.

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

Senate Bill 45 (SB45) – Chaptered in 1997

The component categories shown in the funding table below are as identified in Senate Bill 45 (SB45), which are as follows:

- Project Approval and Environmental Document (PA&ED): Completion of all permits and environmental studies
- Plans, Specifications and Estimates (PS&E): Preparation of plans, specifications, and estimates
- Right of Way (R/W) Support and Capital - The acquisition of rights-of-way
- Construction (Constr.) Support and Capital - Construction and construction management and engineering, including surveys and inspection.

Capital Outlay Support and Project Estimates

Fund Source	Fiscal Year Estimate				
	2014/15	2015/16	2016/17	2017/18	Total
20.xx.201.015					
Component	In thousands of dollars (\$1,000)				
PA&ED Support	\$126				\$126
PS&E Support	\$457				\$457
Right-of-Way Support	\$26				\$26
Construction Support	\$598				\$598
Right-of-Way	\$20				\$20
Construction	\$1,701				\$1,701
Total	\$2,928				\$2,928

Note: Support categories are the same as those identified by SB 45. Support Costs escalated at 5% for one year. Construction Capital escalated at 5% for one year. Support Cost ratio: 70% (All Support Costs divided by the sum of the escalated Construction Capital and escalated R/W Capital).

Workplan Assumptions, Constraints and Risks

- Federal environmental clearance cannot be accomplished until the project has been programmed in the SHOPP and added to the Federal Transportation Improvement Program (FTIP).
- The Project Development Team (PDT) members will identify and communicate changes (assumptions, constraints, risks, scope, schedule and / or budget) to the appropriate Task Manager and Project Manager immediately so that the Team may assess potential actions, impacts and categorize (avoid, transfer, mitigate, exploit, share, enhance or accept) the proposed change to the project.
- Accepted changes to the initial scope of work whether they are an increase or a decrease will be assessed by the PDT and the workplan will be re-examined as needed to adjust the budget in hours and/or dollars to address the accepted changes.
- The workplan was developed using a "Top-down" approach at "WBS Level 5 - the Major Task Level". Prior to any charges occurring on a task the PDT may choose to change the level that a task is planned at.
- The project support budget (in dollars) was developed from the accepted workplan (in hours by task) based upon the "Rate Matrix" set for the Cost Centers with Source Unit by District as loaded into Project Resource and Schedule Management (PRSM) as of June 3, 2014 and includes an escalation factor of 5% for each year through the close of the project to accommodate the following factors:
 - The "PRSM Rate Matrix Data 2013-2014" posted on the HQ Project Management web page as of July 02, 2013 is based on "Past 3 years of expenditure data from EFIS; inflation rates and ICRP rates considered".
 - AB 14-06 ICRP Rates effective July 1, 2014, Functional OH increases from 41.91% to 42.68%.

- AB 14-05 Payroll Reserve Assessment Rates (Benefits) effective January 3, 2014, increases from 69.36 % to 74.04%. AB14-08 shows an additional temporary increase to 81.68% in the Payroll Reserve Assessment Rates (Benefits) effective between April 1, 2014 and June 30, 2014. It will be adjusted for the upcoming FY. At this time it is unknown what rate will be for next FY.
- Base salary rate increase of 4.5% on July 1, 2014
- Per the “*Fiscal Year 2012-13 Annual Project Delivery Report to the California State Legislature*” the average Capital Outlay Program wide “*Annual goal for S/C ratio based on capital value groups*” for projects (STIP and SHOPP) between \$1 million and \$5 million is 60%. The support cost ratio for this project is over the annual average goal due to multiple locations in multiple counties.
 - The following quantitative impact have been identified within the Risk Register and have been included in the funding table above for the project: \$5,000 each for four (4) counties for the potential of Coastal Development Permits (CDP).

6. SCHEDULE

Project Milestones		Scheduled Delivery Date (Month/Day/Year)
PROGRAM PROJECT	M015	July 2014
BEGIN ENVIRONMENTAL	M020	July 2014
PA & ED	M200	October 2014
PS&E to DOE	M377	March 2015
RIGHT OF WAY CERTIFICATION	M410	February 2015
READY TO LIST	M460	June 2015
AWARD	M495	November 2015
APPROVE CONTRACT	M500	December 2015
CONTRACT ACCEPTANCE	M600	January 2017
END PROJECT	M800	March 2018

7. RISKS

The attached Risk Register is a living document and was prepared to assess, respond and monitor identified project risks that may occur throughout the life of the project. The Risk Register will be reassessed throughout the projects lifecycle and is designed as a tool to help the Project Development Team and Project Sponsor in their decisions regarding project alternatives and objectives and encourages the project team to take appropriate measures to minimize adverse impacts to the project scope, schedule or cost. The Risk Register cannot identify all risks in advance of occurrence for a project, some risks are unknown.

The primary risks for this project involve:

- Resource constraints for an accelerated delivery into the 2014/15 fiscal year
- Assumption of no environmental impacts associated with upgrading pedestrian signal systems.
- Construction capital cost estimate is based on an average of \$30,000 per intersection and includes all items of work required.
- Capital outlay support (COS) estimate was developed using a top-down approach.
- Some of the signalized intersection may be partially in Local Agency right of way. It is assumed encroachment permits are obtainable as required for any locations not in State right of way.

The project scope, schedule or cost shown within this programming document includes quantitative impacts as identified within the Risk Register.

8. FHWA COORDINATION

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

9. COST ESTIMATE (June, 2014)

<u>Item</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Amount</u>
Signalized Intersection (includes all work required for CPS/APS)	54	\$30,000 (Lump Sum)	\$1,620,000

10. ATTACHMENT

List of District 5 signalized intersections to be upgraded
Risk Register

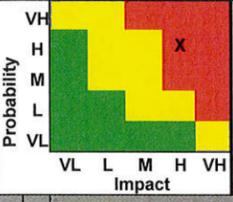
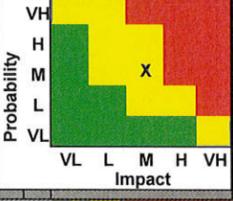
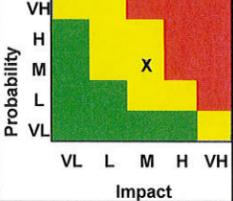
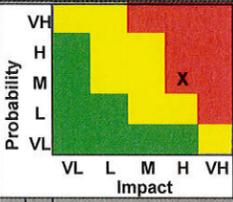
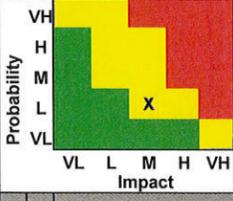
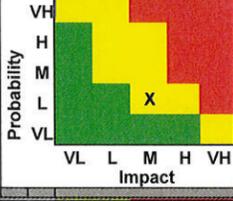
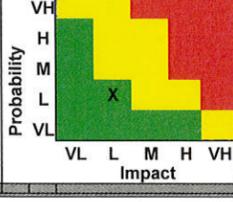
Attachment: 05-1G280K – 0514000134
 Signalized Intersections with Bike/Ped/F+I
 (excluding ramps)

#	DISTRICT	COUNTY	ROUTE	ROUTE SUFFIX	PM PREFIX	BEGIN PM	PM SUFFIX	Description
1	5	MON	68		1.130	1.130		SUNSET DRIVE
2	5	MON	68		1.240	1.240		DAVID AVENUE
3	5	MON	68		19.971	19.971		BLANCO RD
4	5	MON	68		20.430	20.430		ROMIE LN
5	5	MON	68		20.850	20.850		CHESTNUT ST AVE B
6	5	MON	156	T	5.222	5.222		VIERRA CYN RD
7	5	MON	183		0.750	0.750		MARKET AND MAIN
8	5	MON	183		8.930	8.930		RTE 156 EB RAMPS
9	5	MON	218	L	0.250	0.250		DEL MONTE BLVD
10	5	SB	001		20.050	20.050		A ST
11	5	SB	001		20.565	20.565		N JCT 246 H ST & OCEAN
12	5	SB	001		21.338	21.338		PINE AVE
13	5	SB	001		21.559	21.559		NORTH AVE
14	5	SB	001		22.068	22.068		CENTRAL AVE
15	5	SB	135		13.540	13.540		BETTERAVIA RD
16	5	SB	135		14.287	14.287		ENOS DR
17	5	SB	135		14.780	14.780		STOWELL RD
18	5	SB	135		15.540	15.540		COOK ST
19	5	SB	135		15.772	15.772		MAIN ST JCT HWY 166
20	5	SB	135		16.770	16.770		DONOVAN RD
21	5	SB	135		17.130	17.130		GRANT ST
22	5	SB	154	R	32.112	32.112		CALLE REAL/154,E NON AD
23	5	SB	166		7.710	7.710		PINE ST
24	5	SB	166		7.970	7.970		MCCLELLAND ST
25	5	SB	166		8.200	8.200		COLLEGE AVE
26	5	SB	246		26.140	26.140		JCT HWY 101 SB RAMPS
27	5	SB	246		26.368	26.368		MCMURRAY RD
28	5	SB	246		29.233	29.233		ATTERDAG RD
29	5	SB	246		32.120	32.120		REFUGIO RD
30	5	SB	246		9.410	9.410		I ST
31	5	SCR	001		17.560	17.560		JCT 9-RIVER ST
32	5	SCR	001		19.000	19.000		BAY ST
33	5	SCR	001		19.690	19.690		SWIFT ST LT;GRADVIEW-R
34	5	SCR	009		6.460	6.460		GRAHAM HILL/BENNETT ST
35	5	SCR	017		5.450	5.450		GRANITE CREEK & SCOTTS VALLEY
36	5	SCR	017		5.470	5.470		GLENWOOD/SCOTTS VLY DR & SB
37	5	SCR	129		0.000	0.000		MAIN ST
38	5	SCR	129	L	1.178	1.178		WALKER ST SPRR-XING
39	5	SCR	152		0.870	0.870		TUTTLE AVE
40	5	SCR	152		1.631	1.631		COLEMAN AVE
41	5	SCR	152	T	2.533	2.533		FORD ST
42	5	SCR	152	T	2.803	2.803		LAKE @ MAIN; 2.93,L-IA(
43	5	SCR	152	T	2.928	2.928	L	E BEACH @ MAIN
44	5	SCR	152	T	2.991	2.991	R	UNION ST
45	5	SCR	152	T	3.049	3.049	L	BRENNAN/UNION ST
46	5	SLO	001		13.000	13.000		PIER AVE, LT

Attachment: 05-1G280K – 0514000134
 Signalized Intersections with Bike/Ped/F+I
 (excluding ramps)

#	DISTRICT	COUNTY	ROUTE	ROUTE SUFFIX	PM PREFIX	BEGIN PM	PM SUFFIX	Description
47	5	SLO	001		14.100	14.100		GRAND AVE
48	5	SLO	001	L	16.702	16.702		WALNUT AND SANTA ROSA
49	5	SLO	001		17.106	17.106		MURRAY ST
50	5	SLO	001		17.341	17.341		FOOTHILL BLVD
51	5	SLO	001		17.790	17.790		HIGHLAND DR - CAL POLY
52	5	SLO	001		48.260	48.260		ARDATH DR/MAIN ST
53	5	SLO	041	R	15.960	15.960		EL CAMINO REAL
54	5	SLO	041	R	16.063	16.063		STA CAPISTRNO/SNTA YSBL

PROJECT RISK REGISTER

PROJECT RISK MANAGEMENT PLAN																	
Priority	Identification					Qualitative Analysis				OPTIONAL Quantitative Analysis			Risk Response Plan		Monitoring and Control		
	Status	ID #	Date Identified Project Phase	Functional Assignment	Risk (Threat/Opportunity)	Type	Probability	Impact	Risk Matrix	Probability (%)	Impact (\$ or days)	Effect (\$ or days)	Strategy	Response Actions including advantages and disadvantages	Responsibility (Risk Manager)	Last date changes made to risk and Comments	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14) =(12)x(13)	(15)	(16)	(17)
	Active	1	PID	Design	As there are numerous projects statewide that are being accelerated for delivery in the 2014/15 fiscal year, there is a risk of not having sufficient project delivery resources to complete the work as scheduled.	Schedule	High	High					Avoidance	PDT to decide the best course of action to accomplish work on time; Keep management informed of issues ASAP	Design/PM	5/27/2014	
	Active	2	PID	Design	It is assumed there will be no environmental impacts associated with upgrading pedestrian signal systems. If it is discovered during a subsequent phase that any location has an impact that would jeopardize the project schedule, that documented location may be transferred to a subsequent project for delivery.	Schedule Cost	Moderate	Moderate					Avoidance	Design around environmentally sensitive areas and/or transfer location	Design/Env	5/27/2014	
	Active	3	PID	Design	The construction capital cost estimate is based on an average of \$30,000 per intersection for all work required, including, but not limited to, removing/furnishing/installing pedestrian signal components, traffic handling, minor items, mobilization, and contingencies. A more detailed cost will be developed in PA&ED. If additional funding is needed and not available, some locations may be transferred to a subsequent project for delivery.	Cost	Moderate	Moderate					Transference	Include standard contingency in estimate; Keep the cost the same by transferring some locations or find additional funds	Design/PM	5/27/2014	
	Active	4	PID	Design	The capital outlay support estimate was developed using a top-down approach. Support costs will be tracked and adjustments made as needed.	Cost	Moderate	High					Acceptance		Design	5/27/2014	
	Active	5	PID	Environmental	Requests for additional items of work not originally planned may result in scope creep, which could lead to a increase in costs support and/or capital.	Scope Cost	Low	Moderate					Avoidance	Focus on keeping the project within its original scope	Design/PM	5/27/2014	
	Active	6	PID	Design	Requests for additional items of work not originally planned may result in scope creep, which could lead to a increase in task duration.	Scope Schedule	Low	Moderate					Avoidance	Focus on keeping the project within its original scope	Design/PM	5/27/2014	
	Active	7	PID	Project Management	It is anticipated that the project is exempt from Permit requirements (such as Coastal Development) if Agency staff informs us that the project is not exempt from Permit requirements then we may need to obtain the permit or transfer the documented location(s) to a subsequent project for delivery.	Cost	Low	Low					Mitigation	Included \$20K in ROW Capital to mitigate for potential permit costs in four (4) Counties.	ENV/PM	5/27/2014	