05 - SLO - 101 - 52.4
05-0M460K – 0500020023 - PPNO #0614
20.XX.400.100 – Locally Generated Funds
June/2018

Project Study Report-Project Development Support (PSR-PDS)

To

Request Approval to Proceed to the Project Approval and Environmental Document Phase for a Locally Funded Project

On Route	101
At	Main Street Overcrossing
Between	Las Tablas Road Undercrossing
And	Route 101/46 Junction

APPROVAL RECOMMENDED:

COLT ESENWEIN, SAN LUIS OBISPO COUNTY DIRECTOR OF PUBLIC WORKS, Accepts Risks Identified in this PSR-PDS and Attached Risk Register

APPROVAL RECOMMENDED:

AILEEN LOE, CALTRANS PLANNING DEPUTY DIRECTOR

APPROVAL RECOMMENDED:

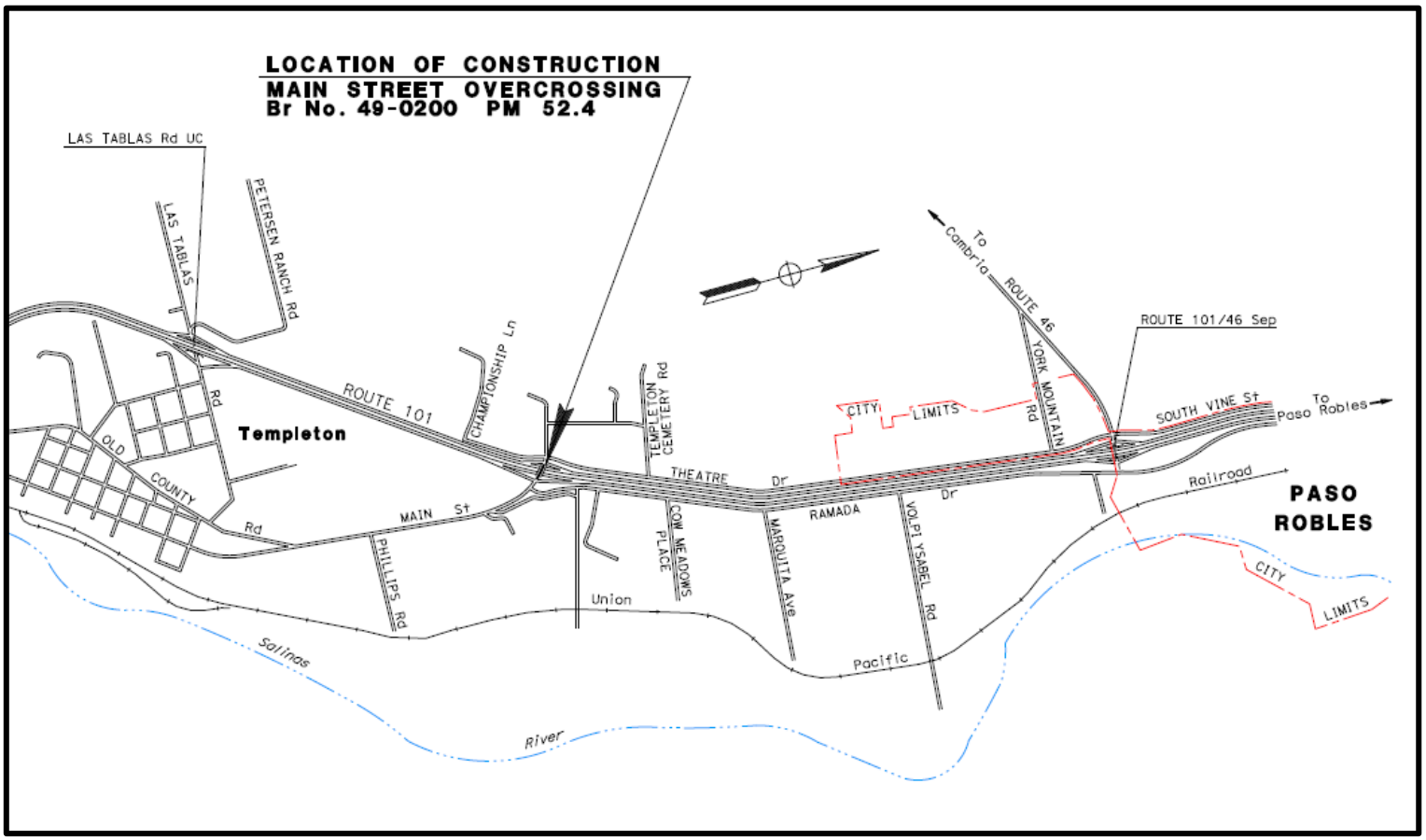
PAUL VALADAO, CALTRANS PROJECT MANAGER

APPROVED:

TIMOTHY M. GUBBINS, DISTRICT 5 DIRECTOR
(or delegated authority)

6.27.18
DATE

Vicinity Map



This project study report-project development support 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.

Jackson Ho 6/8/18

REGISTERED CIVIL ENGINEER *DATE*

Table of Contents

1. INTRODUCTION

Project Description

The County of San Luis Obispo (County) proposes to reconfigure the US 101/Main Street Interchange at post mile 52.4 in the unincorporated community of Templeton. In anticipation of a future build-out of the vicinity, the County and California Department of Transportation (Caltrans) are studying the reconfiguration of the interchange to provide congestion relief and multimodal connectivity. Existing configuration and volumes have caused long delays and queueing in some areas. Current and forecasted PM peak Level of Service (LOS) of some locations are below acceptable levels. No bike lanes are present and the pedestrian facility is limited. In this study are three viable alternatives that combine different elements that can be phased to meet the purpose and needs of this project.

While a Project Study Report-Project Development Support (PSR-PDS) is to primarily help determine support resource requirements for Project Approval & Environmental Document (PA&ED), the County requested a more detailed study of alternatives to facilitate potential rapid development. The County is interested in exploring options to phase the project as a way to incrementally build the project as funding sources are made available.

Project completion requires adequate funding from the County and other stakeholders, such as San Luis Obispo County of Governments (SLOCOG).

Project Limits	05-SLO-101-52.4
Number of Alternatives	3 Viable Alternatives & "No Build" Alternative
Current Capital Outlay Support Estimate for Project Approval & Environmental Document (PA&ED)	$1.7M County Project Development Support $0.2M Caltrans Oversight
Current Capital Outlay Construction Cost Range	$11.2 - 20.8M
Current Capital Outlay Right-of-Way Cost Range	$2.1 - 7.4M
Funding Source	San Luis Obispo County San Luis Obispo Council of Governments Potential Federal Aid
Type of Facility	Four Lane Freeway
Number of Structures	1
Anticipated Environmental Determination or Document	ND or MND (CEQA) CE (NEPA)
Legal Description	In San Luis Obispo County at Templeton at Main Street Overcrossing
Project Development Category	Category 3

2. BACKGROUND

Existing Facilities

US 101

Within the project limits, US 101 is a four lane, full access-controlled urban principal arterial freeway and is the main regional north south corridor through San Luis Obispo County. The US 101 also provides inter-city circulation through many of the communities it runs through. The Transportation Concept Report (December 2014) contains the following route location description:

"US 101 is California's major north-south coastal route between Los Angeles and San Francisco, and is a vital asset to the national, state, and local economies. Its close proximity to two of the nation's largest cities makes it an essential route for national and international goods movement, commerce, trade, tourism, education, military transport, spaceport, and national defense operations, and other important industrial activities. In Caltrans District 5, US 101 begins at the Santa Barbara/Ventura County line (PM SB-R0.00) and extends approximately 270 miles north through San Luis Obispo, Monterey, and San Benito counties to the San Benito/Santa Clara county line (PM SBt-7.55). The route closely follows the Camino Real from the Spanish Colonial period providing diverse vistas for travelers. US 101 also connects to critical east-west highways for goods movement between the central valley and central coast via highways 1, 41, 46, 58, 166, 156, and 152. These key transportation networks, combined with the central coast region's robust commercial activities and $6.5 billion dollar agricultural industry makes this area a principal economic producer/generator for both the state and nation." (p.17)

US 101 is vital to statewide commerce; provides access from Central Coast agricultural operations to markets around the country; serves military operations on and along US 101, including Vandenberg Air Force Base; and provides direct access to robust tourism industry.

Furthermore, US 101 has been given many designations due to its strategic importance:

- National Highway System
- Strategic Highway Network
- Surface Transportation Assistance Act
- Scenic Highway
- Interregional Road System

Main Street Interchange

Main Street is a two lane arterial road that serves Templeton east of US 101. Prior to the construction of US 101, Main Street was State Route 2. Throughout Downtown Templeton, South Main Street runs parallel to the railroad. As it continues north, North Main Street provides access to residential, commercial and sheriff parcels before it crosses over US 101 and continues west through agricultural and industrial parcels to ultimately terminate at a residential driveway.

At the project site, Main Street Overcrossing provides connectivity between Main Street, US 101 tight diamond freeway ramps, Ramada Drive, and Theatre Drive. Both the northbound and southbound offramps are stop controlled. Constructed in 1966, the Main Street Overcrossing (State Bridge Number 49-0200) is a four span reinforced concrete bridge that is composed of precast/pre-stressed "I" girders and reinforced concrete "T" girders. Posted speeds approaching the overcrossing on Main Street are 45 mph. The bridge deck is 37' and 4" wide. The south edge of deck has a Type 5 barrier bridge rail that has a 5' sidewalk and 1' wide rail. The north edge of deck has a Type 1 barrier bridge rail that is 1' wide. The only striping there is a double yellow centerline divider that is 1' and 2" offset towards the north edge of deck.

Ramada Drive

Ramada Drive is a two lane frontage road located on the east side of US 101 that connects the Main Street interchange with the Route 46 West interchange 1.67 miles to the north. Ramada Drive continues 0.8 miles north until it terminates at the railroad crossing. Located along Ramada Drive are a senior apartment complex, a fire station, a concrete plant, a church, farms, and many commercial properties such as: restaurants, brewery, storage facilities, equipment retail, gas stations and more. Approaching the project site, there are minimum-to-no shoulders, no bicycle facilities, and no pedestrian facilities. The posted speed limit is 45 mph. Stop signs control the Ramada southbound leg and the Main Street westbound leg control at the intersection. The Main Street eastbound leg is free-flowing.

Theatre Drive

Theatre Drive is a two lane frontage road located on the west side of US 101 that connects the Main Street interchange to Route 46/Green Valley Road, which becomes an undercrossing at the Route 46 West interchange 1.67 miles to the north. Located along Theatre Drive is the Country Oaks residential development, several mobile home developments, some commercial lots, and a large commercial plaza with retail shops and restaurants. There are no bicycle facilities or pedestrian facilities. The posted speed limit is 45 mph. Stop signs control the Theatre Drive southbound leg, Theatre Drive northbound leg, and the Main Street eastbound leg at the intersection. The Main westbound leg is free-flowing.

Complete Streets

In conformance to Deputy Directive 64-R2, this project seeks to provide "complete streets". The planning, design, operation, and maintenance processes are to provide safe mobility for all users, including bicyclists, pedestrians, transit riders, and motorists appropriate to the function and context of the facility.

Pedestrian Facility

For each viable alternative, standard 6' wide sidewalk is proposed on one side of frontage roads where there are currently none: Ramada Drive and Theatre Drive. No sidewalk is proposed on the side closer to State right of way, as there are no places of

interest. 6' wide sidewalk on both sides of Main Street Overcrossing will replace the single existing 5' wide sidewalk on the south edge of bridge deck. See **Attachment E.** These improvements should be coordinated with the County to correspond to pedestrian demand. Different forms of intersection control will have different numbers of conflicts as well as provide different levels of control for pedestrians. Special considerations are needed for the visually impaired at roundabouts.

Bicycle Facility

Currently, the 2015-2016 County Bikeways Plan (updated draft) designates North Main Street going westbound towards the interchange as a Class II bike lane. Across the interchange Main Street is designated a Class III bike route, and it continues as a Class III bike route north into Theatre Drive. The document identifies in the project limits that Ramada Drive, Theatre Drive, and a portion of North Main Street within the interchange are planned to include 6' wide Class II bike lane facilities.

Different forms of intersection control will affect bicyclist movements. A signalized intersection allows bicyclists to remain separate from motorist space through the intersection. A roundabout may either require bicyclists to control the lane to avoid conflicts with circulating motorists or allow the bicyclists to use ramp and sidewalk.

Transit Facility

The Regional Transit Authority (RTA) Route 9 circulates through southbound Theatre Drive and the Main Street Intersection to enter the southbound onramp. This project will avoid net negative impacts to transit riders.

Context Sensitive Solutions

As stated in Caltrans Director's Policy, the Department uses "Context Sensitive Solutions" as an approach to plan, design, construct, maintain, and operate its transportation system. The following are potential opportunities to balance transportation needs with values of the community context:

- Consult community design plans
- Provide aesthetics for bridge structure and railing, as necessary
- Provide aesthetics for roundabouts, as necessary
- Design contour grading appropriately
- Maintain Main Street character for the community
- Consider funding feasibility
- Meet traffic demand
- Minimize impact on alternate routes, such as Route 46 Junction, Theatre Drive, and Ramada Drive.

Project Sponsors

The County is the sponsor of this project. Prior to the cooperative agreement with Caltrans, considerable action had already been taken. In 2004, the County sought T.Y. Lin International to develop the PSR-PDS for this project. Six alternatives were proposed to reconfigure the Main Street Overcrossing interchange in order to

accommodate traffic in a full build-out scenario. The Templeton Mixed Use Project was one such project developing at that time known to contribute to the full build-out. Caltrans provided oversight to the project.

Subsequently, Rick Engineering provided the traffic study and refined alternatives for this project in a series of memorandum in the years spanning 2011 to 2012. The memorandums provided traffic forecasts and analysis in two separate stages in order to obtain Caltrans concurrence for the forecast results before performing full analysis. The findings of the study validated the purpose and need of this project.

Eventually, the County turned to Caltrans to continue with developing the PSR-PDS for this project in early 2015. On January 5, 2016 the County executed a Cooperative Agreement with Caltrans. Since the signing of the Cooperative Agreement, the County has been involved with the creation of the official purpose and need statement, has been actively engaged in attending project development team (PDT) meetings, has participated in evaluating the alternatives, has conducted public outreach and gathered public input, and has also been responsible with completing the Right of Way Data Sheet and Preliminary Environmental Analysis Report.

3. PURPOSE AND NEED

Purpose

The primary purpose of the project is to provide congestion relief and multi-modal connectivity. The secondary purpose of this project is to provide solutions that allow for the phasing of the major project elements as funding source becomes available and to develop a project that minimizes prime agricultural impacts.

Need

The need for this project is driven by two areas of deficiency: traffic operations and reduced mobility.

Traffic Operations

During peak hours, certain intersections in the Main Street interchange experience LOS below levels of acceptability by Caltrans and County standards. Long delays and queues are also present.

Reduced Mobility

Currently, within the project limits, Main Street and the local roads do not have bicycle facilities and have limited pedestrian facility.

4. TRAFFIC ENGINEERING PERFORMANCE ASSESSMENT

A draft Intersection Control Evaluation (ICE) Step 1 analysis was completed on March 8, 2017 for the four existing intersections at this interchange and four initial alternatives. (Those four alternatives ended up being rejected by the public on March

13, 2017 during the public outreach meeting. See **Attachment D** for the four rejected alternatives.)

Table 1 below summarizes the existing intersection operations analysis. It is based on a 2015 existing traffic count provided by Associated Transportation Engineering. It shows that average vehicle delays at the four study intersections are mostly within acceptable levels at LOS C or better during the AM and PM peak hours of operation. However, delays for the off-ramps are greater than the desired LOS C threshold during the PM peak hour.

Table 1: Existing Level of Service (2015)

ID	N-S Road	E-W Road	Intersection Control	DIR	Lane Config.	AM Peak			PM Peak		
						Delay (sec)	LOS	Avg.	Delay (sec)	LOS	Avg.
1	Theatre Dr	Main St	TWSC* (2015)	NB	1-LTR	5.1	A		6.8	A	
				SB	1-LTR	7.8	A	7.9	9.5	A	10.0
				EB	1-LTR	7.9	A	A	10.0	B	B
				WB	1-LTR	1.5	A		3.4	A	
2	SB Ramps	Main St	TWSC (2015)	SB	1-LTR	22.1	C	22.1	35.1	E	35.1
				EB	1-TR	0.0	A	C	0.0	A	E
				WB	1-LT	8.5	A		8.6	A	
3	NB Ramps	Main St	TWSC (2015)	NB	1-LTR	14.7	B	14.7	38.5	E	38.5
				EB	1-LT	8.2	A	B	8.7	A	E
				WB	1-TR	0.0	A		0.0	A	
4	Ramada Dr	Main St	TWSC (2015)	SB	1-L,1-R	6.6	A	12.1	17.2	C	23.7
				EB	1-LT	0.4	A	B	23.7	C	C
				WB	1-TR	12.1	B		13.8	B	

* Two Way Stop Controlled

Table 2: Future Level of Service (2035, No Project)

ID	N-S Road	E-W Road	Intersection Control	DIR	Lane Config.	AM Peak			PM Peak		
						Delay (sec)	LOS	Avg.	Delay (sec)	LOS	Avg.
1	Theatre Dr	Main St	TWSC (2035)	NB	1-LTR	11.7	B		17.2	C	
				SB	1-LTR	14.0	B	14.0	23.7	C	23.7
				EB	1-LTR	13.7	B	B	14.8	B	C
				WB	1-LTR	3.0	A		4.0	A	
2	SB Ramps	Main St	TWSC (2035)	SB	1-LTR	473.5	F	473.5	970.3	F	970
				EB	1-TR	0.0	A	F	0.0	A	F
				WB	1-LT	9.2	A		10.9	B	
3	NB Ramps	Main St	TWSC (2035)	NB	1-LTR	297.9	F	297.9	527.4	F	527
				EB	1-LT	9.7	A	F	10.5	B	F
				WB	1-TR	0.0	A		0.0	A	
4	Ramada Dr	Main St	TWSC (2035)	SB	1-L,1-R	12.0	B	197.6	79.9	F	464
				EB	1-LT	0.9	A	F	0.8	A	F
				WB	1-TR	197.6	F		463.6	F	

Table 2 above summarizes the 2035 future level of service under No Project conditions for the four study intersections. The stop controlled approach legs at the

southbound offramp, northbound ramp, and westbound Main St intersection would operate at LOS F with excessive delays during the peak hours of operations. The Main St/Theatre Dr would continue to operate at LOS C or better.

A benefit-cost (B/C) analysis was performed for each of the intersections for the four rejected alternatives. Benefits were calculated based on societal savings related to collisions improvements when comparing roundabout or traffic signal intersection to a stop-controlled intersection. Rejected Alternative 1 with roundabout yield-control intersections on east and west side of the interchange was identified as highest scoring, 1.73 and 1.06. Rejected Alternative 1 is the only alternative that provides a better return on investment when compared to the existing stop-control intersections. Rejected Alternatives 2, 3, and 4 have B/C ratios less than 1.0 which indicates that the existing stop-control will provide a better return on investment when compared to a roundabout and/or signal. The draft ICE report concludes by recommending Rejected Alternative 1 for further study.

The ICE Step 1 draft report will not be updated to replace the four rejected alternatives with the three viable alternatives due to lack of resources. In PA&ED, a project level traffic operational analysis report (TOAR), which is Step 2 of ICE, needs to be completed on the latest viable alternatives.

The following are recommended for further B/C analysis:

- Update and refine forecast design year traffic volumes at study intersections.
- Conduct freeway and ramp merge/diverge analysis within the project limits.
- Perform preliminary engineering and design.
- Evaluate roundabout design performance checks, if applicable: fastest path, natural path, design vehicle, sight distance and visibility.
- Continue to monitor traffic conditions at the northbound ramps/Main Street and Ramada Drive/Main Street intersections for signal warrant analysis.
- (Optional) Traffic microscopic multi-modal traffic flow simulations of project area using software such as PTV Vissim.

5. DEFICIENCIES

Primary Deficiencies

Primary deficiencies are concerns that directly contribute to the need of projects. For this project, primary deficiencies are grouped into the areas of traffic operations and reduced mobility.

Traffic Operations

Increase in development over time in Templeton has led to increased traffic and congestion at the US 101 and Main Street Overcrossing interchange. The 2015 existing traffic count provided by Associated Transportation Engineering confirms several deficiencies.

The first deficiency is at the southbound ramps and Main Street intersection. Traffic on the southbound offramp was experiencing an average delay of 35.1 seconds during the PM peak hours, which correlates to a LOS of E.

The second deficiency is at the northbound ramps and Main Street intersection. Traffic on the northbound offramp was experiencing an average delay of 38.5 seconds during the PM peak hours, which correlates to a LOS of E. Caltrans and County maintain a criteria for acceptable operations as Level C or better.

Another deficiency directly relates to delays experienced at the Main Street and northbound offramp intersection. Queueing of Main Street eastbound traffic trying to turn left onto Ramada Drive at times block northbound offramp traffic from traveling through the intersection. This is a consequence of inadequate spacing between ramp intersections and local frontage road intersections. Existing intersection spacing is approximately 50', and the Highway Design Manual (HDM) standard intersection spacing is 400'.

Interchange reconfiguration is needed to improve traffic operations and provide congestion relief.

Reduced Mobility

The project area currently does not have striped bike lanes, and the only segment with sidewalk is the south side of the overcrossing bridge. None of the interchange approaches have sidewalk to connect to the sidewalk on the bridge. As the community continues to develop and grow, improvements are needed to address increasing demands for different modes of travel, such as bicycle and pedestrians.

Secondary Deficiency

Secondary deficiencies are concerns that do not directly contribute to the need of the project, but still warrant consideration in the scope of the project for improvement.

Vertical clearance under the Main Street Overcrossing over the southbound roadway is non-standard at 16.1'. HDM standard for vertical clearance on a freeway is 16.5'. Inadequate vertical clearance under overcrossings limit the passage of permit vehicles.

Traffic volumes at the Main Street interchange are currently affected by complexity of operation at the US 101/State Route 46 West Interchange, which is about 1.67 miles north of the project site. Drivers using the State Route 46 West northbound offramp need to navigate three signaled intersections, lane changes, and multiple turns within a relatively short distance in order to arrive at the commercial businesses (like Target, Hampton Inn, Orchard Supply Hardware, Applebee's, etc.) west of the interchange. Many drivers prefer to use the Main Street northbound offramp to access Theatre Drive to reach the residential and commercial destinations on the west side of US 101. This adds additional traffic volumes to the Main Street northbound offramp, thereby increasing delays on Main Street and increasing offramp queue lengths that

could potentially conflict with US 101 mainline operation.

The project stakeholders should consider such secondary deficiencies when choosing the final alternative to provide adequate capacity and operations.

6. CORRIDOR AND SYSTEM COORDINATION

This project is consistent with the Transportation Concept Report, District System Management Plan, Corridor System Management Plan, Interregional Transportation Strategic Plan, and California Freight Mobility Plan. The Templeton Traffic Circulation Study in 2004 supports the need for revision to the US 101/Main Street interchange. The 2014 SLOCOG Regional Transportation Plan/Sustainable Communities Strategy (SCS) report identifies this project as fundable project number NTH-HWYS-024. The SLOCOG 2013 Park and Ride Lot Study does not indicate any plans for a future park & ride lot at this location.

Bicycle and pedestrian proposals in this project are consistent with the Templeton Community Plan and Circulation Element. The SLO Regional Transit Authority (RTA) Short Range Transit Plan identifies potential future alterations to RTA 9 Route and a desire for an additional Morro Bay to Templeton Route. No specific recommendations surrounding the interchange are identified. The SLOCOG US 101 Corridor Mobility Master Plan recommends increasing peak hour bus service frequency on Route 9.

7. ALTERNATIVES

Project Study Area

Most of the project study area is in the vicinity of the US 101/Main Street Overcrossing Interchange. As there is no proposed mainline work, the project study areas will include primarily local roads, ramps, and intersections. See **Attachment B** for an exhibit showing the project study area encompassing all alternatives and their parcels affected.

The western region of the project will extend past the edges of the developed parcel containing the Caltrans Maintenance Yard and Weyrick Commercial Lumber Lot to encompass potential storm water treatment best management practices to be placed along the edge of these developed lots. The eastern region of the project will extend approximately 1,000' east of the interchange along Main Street to include various commercial retail zones with buildings and businesses.

In the northern region, the project study area will extend approximately 2,400' north of the interchange to allow for the realignment and conforms of the ramps, Theatre Drive, and Ramada Drive. The southern region of the project study area will extend approximately 1,000' south of the interchange to allow for ramp realignment.

Apart from roadway work in the interchange, the project is also anticipating storm water quality treatment measures to be placed on County lands off-site from the project. Site selection will be based on future discussions involving the County's preference for water quality treatment to coincide with County flooding locations identified in the Templeton Drainage and Flood Control Study, 2014. Site selection will also require Water Board approval during the PA&ED stage.

Conceptual Elements
Immediately after entering into the cooperative agreement and before establishing Project Initiation Document (PID) level alternatives, Caltrans developed conceptual elements for the western and eastern sides of the overcrossing based on alternatives developed by prior consultants. Additional elements were also created independent of the consultant alternatives. Through subsequent meetings with the County, elements were dismissed and combined to create alternatives to be studied for the PID. The initial alternatives were presented to the public in a town hall meeting on March 13, 2017. Subsequently, new elements were created based on feedback received.

West Elements 1 through 4 and East Elements 1 through 5 were created prior to the public information meeting. West Elements 5A through 7 and East Elements 5A through 5A Clear were created after public input. Such input includes the resistance to roundabouts, the desire for hook ramps, and the desire for more signalized intersections.

Summarized below are descriptions of each conceptual element. See **Attachment C** for illustrations of each element. See **Attachment H** for more information on Structures Conceptual Planning Study.

West Elements in Viable Alternatives
WE5A: West Element 5A places hook ramps north of the interchange to achieve standard intersection spacing, curve radii, and superelevation transition lengths. Compared to WE5A Clear, the hook ramp intersection is closer to the overcrossing. The overcrossing alignment maintains free flow at the minor Main Street and minor Theatre South intersections. The southbound onramp alignment's proximity to the existing bridge abutment will require translating the abutment and thereby increasing the bridge span. The bridge vertical clearance will need to be increased to standard as there is no way for larger permit vehicles to use ramps to avoid crossing under the bridge.

WE5A Clear: West Element 5A Clear places hook ramps north of the interchange to achieve standard intersection spacing, curve radii and superelevation transition lengths. Compared to WE5A, the hook ramp intersection is situated farther north. The purpose of this is to avoid a longer span bridge since the southbound onramp does not conflict with the bridge abutment. The bridge vertical clearance will need to be increased to standard as there is no way for larger permit vehicles to use ramps to avoid crossing under the bridge.

WE7: West Element 7 replaces the western intersections with a five-legged single lane roundabout with a 175' inscribed circle diameter where the southbound onramp connects to the south Theatre Drive at least 500' feet away from the roundabout. A left turn lane is provided on the south Theatre Drive leg for the southbound onramp, where the ramp terminus is directly across the Weyrick driveway. Many conflict points can be removed through the use of a roundabout.

West Elements Considered and Dismissed

WE1: West Element 1 is a six-legged single lane roundabout that brings the Main Street, southbound ramps and Theatre Drive together. The many legs create geometric design challenges for a roundabout, and they also contribute to a large inscribed circle diameter. The project development team dismissed this element due to the excessive right of way impacts to the Weyrick lumber lot and Dusi vineyard.

WE2: West Element 2 is a five-legged single lane roundabout that is made possible by the elimination of the southern Theatre Drive leg and the extension of the North Main Street leg to Championship Lane to compensate for access lost with the Theatre leg elimination. The result of this is a simpler roundabout with less right of way impact to the Weyrick lumber lot and the Dusi vineyard. The inscribed circle diameter is also smaller than that of a six-legged roundabout. This element was rejected by the public due to their initial opposition of roundabouts and the need to extend the private Harris driveway to Championship Lane.

WE3: West Element 3 resolves problems associated with closely spaced intersections by moving the frontage road intersection north. The previous southern Theatre Drive approach would be extended through the Dusi vineyard and curve eastward to reconnect with Main Street, which is extended north in place of the existing northern Theatre Drive approach. In contrast with all the other western elements, this element allows for stop or signal controls to be considered at each of the two intersections. This element was dismissed by the project development team due to the excessive impact on the Dusi Vineyard and the longer distances needed to reach the southwestern quadrant of the interchange.

WE4: West Element 4 is a four-legged single lane roundabout concept that takes West Element 3 and turns the Main Street and southbound ramps intersection into a roundabout intersection. This element was rejected by the public due to their initial opposition of roundabouts and the longer distances needed to reach the southwestern quadrant of the interchange.

WE5C: West Element 5C places hook ramps north of the interchange to achieve standard intersection spacing, curve radii and superelevation transition lengths. Main Street and Theatre drive form a signal controlled intersection. The southbound onramp alignment's proximity to the existing bridge abutment will require translating the abutment and thereby increasing the bridge span. The bridge vertical clearance will need to be increased to standard as there is no way for larger permit vehicles to use ramps to avoid crossing under the bridge. This element was dismissed due to the

operational inefficiencies in the Main-Theatre movement caused by the signal controlled intersection- especially when there are similar elements that provide free flow on Main Street.

WE6A: West Element 6A places hook ramps south of the interchange to achieve standard intersection spacing, curve radii and superelevation transition lengths. Compared to WE6A Clear, the hook ramp intersection is situated closer to the overcrossing. The southbound offramp alignment's proximity to the existing bridge abutment will require translating the abutment and thereby increasing the bridge span. The bridge vertical clearance will need to be increased to standard as there is no way for larger permit vehicles to use ramps to avoid crossing under the bridge. This element was dismissed because the intersection requires significant right of way take from the developed southwest parcel.

WE6A Clear: West Element 6A Clear places hook ramps south of the interchange to achieve standard intersection spacing, curve radii and superelevation transition lengths. Compared to WE6A, the hook ramp intersection is situated farther south. The purpose of this is to avoid a longer span bridge since the offramp would not conflict with the bridge abutment. Additionally, Theatre Drive connects directly to Championship Lane. This element was dismissed because the intersection requires significant right of way take from the developed southwest parcel.

Eastern Elements in Viable Alternatives

EE1: East Element 1 is a five-legged single lane roundabout with an inscribed circle diameter of 175' that brings the Main Street intersections with the northbound ramps and Ramada Drive together. Like all roundabouts, this can potentially improve the traffic operations through the intersection. Ramada Drive would be realigned to provide a satisfactory entry leg into the roundabout. This will result in some right of way impacts to the Mandrille parcel immediately east. This element was carried into alternatives formation despite initial public opposition of roundabouts due to its operational advantages.

EE5: East Element 5 is similar to EE 4 because it also utilizes a Type L-7 cloverleaf interchange. Instead of having two separate intersections, both northbound cloverleaf ramp terminals are brought closer to the overcrossing, and Ramada Drive is realigned to intersect Main Street directly opposite from the ramp terminals. This element creates the need for structural modification for the onramp to merge into the US 101 mainline under the bridge superstructure; however, impacts to the Weyrick parcel are significantly less than East Element 4. Additionally, this element will require a mandatory design exception to be granted to allow for Ramada Drive to have access directly across from a ramp terminal that intersects a crossing.

EE6A Clear: East Element 6A Clear places hook ramps north of the interchange to achieve standard intersection spacing, curve radii and superelevation transition lengths. Compared to EE6A the hook ramp intersection is situated farther north. The purpose of this is to avoid a longer span bridge since the offramp does not conflict

with the bridge abutment. This element was carried into alternative formation because it satisfies public input and because the Ramada alignment is able to avoid impacts to the Mandrille parcel- especially when compared to EE6A.

East Elements Considered and Dismissed

EE2: East Element 2 is the realignment and extension of Ramada Drive so that it intersects with Main Street further south at the standard intersection spacing with the northbound ramps. This element maintains two intersections that can be evaluated for stop or signal intersection control. The realigned Ramada Drive diverges significantly from Main Street in order to provide standard horizontal curves and a perpendicular approach to the new intersection with Main Street. This new alignment requires significant right of way from the Mandrille and Miller parcels, and it overlaps with a number of features, such as: mature trees, buildings, and agricultural facilities. This element was rejected by the public due to significant right of way impacts.

EE3: East Element 3 is a realignment of Main Street and Ramada Drive so that they intersect each other farther east at the standard intersection spacing with the northbound ramps. Similar to EE2, this maintains two intersections that can be evaluated for stop or signal intersection controls. Additionally, Ramada Drive and Main Street diverge from the existing Main Street and requires significant right of way take of the Mandrille and Miller parcels. The element also creates alignments that overlap with features, such as: mature trees, buildings, and agricultural facilities. Due to the orientation of Main Street in this element, it has the potential to continue as an extension to intersect with Ruth Way which is located just north in the Templeton Mixed-use project. Currently, Ruth Way ends as a cul-de-sac but there are planning documents that see it potentially extended to the south. This element was rejected by the public due to significant right of way impacts.

EE4: East Element 4 is similar to a Type L-7 cloverleaf interchange with the exception that an additional intersection with the frontage road, Ramada Drive, is maintained close to the overcrossing. The allows for a standard intersection spacing at the cost of having right of way impacts to the undeveloped Weyrick parcel that is just north of the Sheriff's parcel. Most of the Weyrick parcel would need to be acquired. One advantage is that the Ramada north alignment minimizes the creation of irregularly shaped parcels west of Ramada and constricts development east of Ramada Drive. This element would have no right of way impacts to the Mandrille and Miller parcels. The northbound onramp would require structural modifications to the existing bridge bent in the mainline northbound outside shoulder and abutment to allow the onramp to pass under the superstructure. This element was dismissed by the project development team due to the extensive impact to the Weyrick parcel along with its similarity to East element 5.

EE6A: East Element 6A places hook ramps north of the interchange to achieve standard intersection spacing, curve radii and superelevation transition lengths. Compared to EE6A Clear the hook ramp intersection is translated closer to the overcrossing. The offramp proximity to the existing bridge abutment will require

lengthening the bridge span. The bridge vertical clearance will need to be increased to standard as there is no way for larger permit vehicles to use ramps to avoid crossing under the bridge. This element was dismissed because the intersection requires significant right of way take from the developed northeast Mandrille parcel.

Viable Alternatives Formation

To develop the three viable alternatives for this PID, many elements were created to serve the east and west side of the overcrossing. They were evaluated independently, and various elements were dismissed by the project development team. The remaining elements were combined to create viable alternatives. Each alternative was developed using a STAA design vehicle. Some alternatives were dismissed after further analysis and public input. Three alternatives are recommended for study in PA&ED. See **Attachment D** for layouts of the three alternatives along with the four rejected alternatives. See **Attachment E** for a typical cross sections of the local roads and ramps.

Proposed Engineering Features

Viable Alternative 1:

Alternative 1 combines WE5A Clear with EE6A Clear, creating a full hook ramp interchange alternative. The overcrossing bridge can be replaced with standard vertical clearance to allow permit vehicles to pass under it. Bridge spans do not need to be lengthened.

- Replace southbound tight diamond ramps with standard hook ramps to the north. Ramp tapers are to be completed outside of the overcrossing footprint.
- Realign Theatre Drive to accommodate termini of southbound ramps.
- Reconstruct Harris private roadway and Theatre Drive to connect to Main Street.
- Relocate northbound tight diamond ramps northward and change to hook ramps with standard geometrics, including standard superelevation transition lengths. Ramp tapers are to be completed outside of the overcrossing footprint.
- Realign Ramada Drive to accommodate termini of ramps.
- Replace the bridge with the following cross sectional features: three 12' vehicle lanes, 6' wide bicycle lanes on both sides, 6' wide sidewalk on both sides, and standard bridge rails with fencing.
- The bridge needs to be replaced to provide standard vertical clearance for permit vehicle crossing, but the spans do not need to be lengthened.
- Construct approximately 220' length of retaining wall between Main Street and the Mandrille parcel to preserve private structures.
- Rebuild access conforms such as driveways and unpaved roads.
- Reconstruct contrasting surface treatment area and install in-ground sign post sleeves beyond the gore for the northbound offramp, northbound onramp, and southbound onramp.

Another variation of this alternative is to widen the existing bridge to the dimensions stated above. Instead of replacing the bridge structure with a higher one to achieve

standard vertical clearance of 16.5 feet, US 101 mainline would be lowered by at least 0.4 feet. Such an alternative will require modifying an extensive length of the freeway. The existing freeway structural section needs to be evaluated to determine if grinding and replacement are viable options. This variation of the alternative can be explored in PA&ED. The design exception assessment covers such a scenario.

Viable Alternative 2:

Alternative 2 combines WE5A and EE5. This places a hook ramp intersection close to the overcrossing on the west side paired with a clover leaf loop ramps intersection with a local road on the east side. The overcrossing bridge needs to be replaced with standard vertical clearance to allow permit vehicles to pass under it, and to lengthen the spans to accommodate onramps on the outside of US 101.

- Replace southbound tight diamond ramps with standard hook ramps to the north. Ramp tapers may overlap with the overcrossing footprint.
- Realign Theatre Drive to accommodate termini of southbound ramps.
- Reconstruct Harris private roadway and Theatre Drive to connect to main alignment.
- Replace existing northbound ramp intersection and Ramada Drive intersection with a four-legged signalized intersection on east side. The tight diamond ramps will be replaced with a single quadrant cloverleaf combined loop ramp.
- Reconstruct Ramada Drive approach and Main Street approach to match roadway geometry on the bridge.
- Replace Main Street overcrossing bridge with the following cross sectional features: traveled way of four 12' lanes, 6' wide bicycle lanes on both sides, 6' wide sidewalk on both sides, and standard bridge rails with fencing.
- Replace bridge with standard vertical clearance for permit vehicle passing, and lengthen the spans to accommodate widening for onramps.
- Construct approximately 420' length of retaining wall between Main Street and the Mandrille parcel to preserve private structures.
- Rebuild access conforms such as driveways and unpaved roads.
- Reconstruct contrasting surface treatment area and install in-ground sign post sleeves beyond the gore for the northbound offramp, northbound onramp, and southbound onramp.
- There is no widening alternative for the bridge. It would be economically not feasible to coordinate multiple stages of lateral bridge work and longitudinal bridge lengthening while maintaining public access on Main Street. The cost of such a complex operation will exceed the cost and difficulty of a complete replacement.

Viable Alternative 3:

Alternative 3 combines WE7 and EE1, making it a double five-legged roundabout connected by an existing two lane overcrossing that may be widened or replaced.

- Replace existing southbound ramp intersection and Theatre Drive intersection with a five-legged single lane roundabout.
- Realign the southbound onramp to connect to south Theatre Drive.
- Replace existing northbound ramp intersection and Ramada Drive intersection

with a five-legged single lane roundabout.
- Reconstruct all legs leading to both roundabouts.
- Widen or replace the Main Street overcrossing bridge with the following cross sectional features: two 12' vehicle lanes, 4' of raised island, 6' wide bicycle lanes on both sides, 6' wide sidewalk on both sides, and standard bridge rails with fencing.
- Construct approximately 440' length of retaining wall along the inside of the southbound offramp as the profile ascends to meet the roundabout.

If the PDT and stakeholders desire to replace the bridge to a height that provides standard vertical clearance, all surrounding features identified above would be raised to match or conform to a higher finished grade. During PA&ED, both roundabouts should be evaluated along with updated traffic counts and forecast to determine whether hybrid roundabouts are more appropriate than single lane roundabouts.

Engineering Features for All Viable Alternatives

All alternatives will include, but not be limited to, the following engineer features:
- Replace drainage systems
- Construct Americans with Disabilities Act (ADA) compliant curb ramps
- Replace guard railing on Main Street overcrossing bridge approaches and on the mainline approaching bridge bents.
- Construct slope embankment per geotechnical recommendations
- Construct sidewalk, bicycle lanes, curb and gutter to complete pedestrian and bicycle network on local roads
- Reconstruct ramp and local road approaches and conforms
- Traffic signals, pending Intersection Control Evaluation in PA&ED.
- Street lights, pending further discussions in PA&ED.

Construction Staging and Traffic Handling

As the Main Street Overcrossing provides a critical connection between residential zones in the east and commercial retail zones in the west side of US 101, it is important to maintain two lanes of travel spanning over US 101 for the community. The nearest alternative routes for crossing US 101 are at least one mile north and south of the Main Street interchange. In order to maintain connectivity at Main Street, construction of intersections and the bridge will need to be coordinated together, along with traffic handling. US 101 mainline traffic will require brief directional closure during bridge removal and falsework erection/removal. Temporary pedestrian walkways will likely be necessary. Intersection staging and drainage during construction will be studied during PA&ED. Below is a description of bridge construction staging.

Several assumptions were made in order to provide a preliminary study. Bridge widening will occur on the north side of the bridge in order to avoid reducing an already deficient vertical clearance, by taking advantage of the descending vertical profile of the mainline below. Additionally, it is assumed that the existing southern edge of deck will remain the future edge of deck.

Staging Viable Alternative 1

Replace Bridge: See Alternative D of **Attachment H**. There are two ways to stage work to replace the overcrossing bridge. The first method provides connectivity at Main Street, where the bridge can be replaced in multiple stages while maintaining two-way traffic. The first stage will require placing shoring for the existing bridge, removing the northern bridge rails and portions of the existing bridge deck that conflicts with the new bridge, placing temporary railing to keep traffic on the remaining portion of the existing bridge, constructing new partial abutments, constructing new bents, erecting falsework, and constructing new northern superstructure. Subsequent stages will require shifting temporary railing and two-way traffic onto the newly constructed northern superstructure, removing the rest of the existing bridge, constructing new partial abutments, erecting falsework, constructing the new southern superstructure, and connecting the northern and southern superstructures before removing temporary railing and finishing off with striping. Temporary pedestrian walkways will be necessary.

Another way to stage this alternative is to build a new bridge on a completely new alignment offset from the existing alignment. Once the new bridge is completed, approaches to the new bridge can be built before the existing bridge is demolished. This will shift surrounding intersections to the new alignment and potentially require reconstruction of the ramps to maintain standard ramp geometry. This will require a completely new alternative to be explored.

Staging Viable Alternative 2

Replace Bridge: See Alternative E&F of **Attachment H**. As explained in the 'Proposed Engineering Features' section above, bridge widening is not feasible for this project alternative. The bridge can be replaced in two stages utilizing two-way traffic control. The first stage will require constructing new abutments and bents north of the existing bridge, erecting falsework, and constructing new northern superstructure. The second stage will require placing temporary railing and shifting two-way traffic onto the newly constructed bridge, removing the existing bridge, constructing new abutments and bents, erecting falsework, constructing the new southern bridge section, and connecting the two new elements before removing temporary railing and finishing off with striping.

Staging Viable Alternative 3

Widen Bridge: See Alternative A of **Attachment H**. Multiple stages of construction are required for the bridge widening. This will require removing the northern bridge rails and deck edge, placing temporary railing to keep traffic on the existing bridge, widening the existing abutments, extending pier walls, erecting falsework, constructing new superstructure, connecting the new deck with the existing, replacing the old southern bridge rails, removing temporary railing, overlaying partial deck width with polyester concrete for crown relocation, and finishing off with striping.

Replace Bridge: See Alternative B of **Attachment H**. Multiple stages of construction are required for bridge replacement. The first stage will require placing shoring for

the existing bridge, removing the northern bridge rails and portions of the existing bridge deck that conflicts with the new bridge, placing temporary railing to keep traffic on the existing bridge, constructing new partial abutments, constructing new bents, erecting falsework, and constructing new northern superstructure. Subsequent stage will require shifting temporary railing and two-way traffic onto the newly constructed bridge, removing the southern remainder of the existing bridge, constructing new partial abutments, erecting falsework, constructing the new southern bridge section, and connecting the southern and northern elements before removing temporary railing and finishing off with striping. Temporary pedestrian walkways will be necessary to maintain two-way traffic.

In PA&ED, the design team will need to consider the staging the construction of roundabouts. Roundabout staging can be extraordinarily complex.

Project Elements Phasing

The County established during the project development team meetings that they are interested in studying the extent to which each viable alternative can be built in multiple phases depending on the availability of funds, such as developer-paid Roadway Impact Fees (RIF). All phasing efforts are subject to the normal procedures, laws, and regulations required for the building of public works projects. Below are preliminary descriptions of the extent to which each alternative can be phased. A key assumption is that the overcrossing centerline does not change significantly. Since the County is focused on accelerating development east of the overcrossing bridge, the analysis of phasing begins with looking at how West Elements, East Element, and the bridge in each alternative can operate independently for a limited time. During bridge demolition, all lanes in one direction of traffic will likely be closed for a brief period of time. The existing tight diamond ramps in that direction should be preserved for detouring traffic past the bridge demolition site because hook ramps are inadequate to provide the detour. Detouring traffic through Templeton Main Street would not be acceptable for local circulation. That is why the bridge should be phased before any west and east hook ramp elements. As noted below, the Project Purpose will not be achieved until all elements of the project are constructed.

<u>Phasing Viable Alternative 1:</u>

West Element 5A Clear, Main Street overcrossing, and East Element 6A are all connected with three vehicle lanes in this alternative. The west and east elements each have one lane entering onto the bridge. The existing bridge is sufficient in handling the two lanes, which makes phasing more possible. The west and east elements can be constructed independently of each other but only after all bridge demolition activity is completed for their respective directions. Short segments of connection needs to be reconstructed to facilitate smooth transition when a new element is built. Queuing and delays on the bridge will likely be present all elements are completed.

<u>Phasing Viable Alternative 2:</u>

This alternative has a lower degree of phasing due to the constraints in the east element. The east element intersection contains multiple approaches with high

volumes of traffic contributing to it that requires multiple lanes in each approach. All approaches need to be built to final configuration in order for the intersection to operate. For example, there are two left turn lanes at the northbound offramp. These two left turns require the new bridge to be constructed with four lanes before being able to continue onto the bridge. Therefore, the east element is highly dependent on the overcrossing being replaced first. The west element is also dependent of the bridge because hook ramps are being proposed and would not be suitable for detouring traffic past bridge demolition closures. Unused deck widths can potentially be striped or zoned from operation until later.

Phasing Viable Alternative 3:
Alternatives 3 has, comparatively, the highest degree of phasing. The west and east elements are highly compatible with the existing bridge because they are both two lanes approaches. If the bridge is simply widened, the profiles of each element can transition smoothly between each other.

Other Design Remarks
Bridge widening alternatives provide an advantage to phasing because the vertical profiles will remain substantially the same. This provides ease in transition from one element to the next. Phasing alternatives where the design profile is higher to meet standard vertical clearance may create non-standard interim vertical profiles which may require design exception approval prior to construction.

Caltrans emphasized in project development team meetings that traffic operations and multimodal connectivity will remain deficient and the project's primary purpose will not be met until all elements of each alternative are built. Additionally, if construction activity is phased, total net capital and support costs will be higher than the estimate provided in this report.

Landscaping
All three viable alternatives will incorporate highway planting, preservation of existing vegetation, erosion control, maintenance safety features, and aesthetic treatment.

Viable Alternative 3 has the additional consideration of planting to make the central islands of the two roundabouts more conspicuous, reduce headlight glare and improve the aesthetics of the facility. Planting should also be considered in the splitter islands and along approaches. In general, the type and extent of landscaping should be appropriate for the surroundings, ensure appropriate sight distance, and accommodate maintenance force input regarding worker safety.

Highway planting and irrigation will comply with safety and maintenance requirements to address visual and biological impacts. This separate landscaping contract is to take place after the roadway construction project, and it will require a three year plant establishment period. Bubbler system irrigation control system should be "smart" (automatic control and adjustment, remote control, internet

connected, etc.) to save water and energy. The system should utilize available municipal water sources.

Removal of existing native vegetation should be coordinated with environmental specialists for minimization, and Temporary Fence (Type ESA) shall be delineated on project plans to protect said vegetation during construction.

Permanent erosion control is to be applied to disturbed areas. Materials, including compost and hydro-seed, are to be selected per location to promote long-term vegetation establishment.

Various features will be needed to provide for maintenance access and safety. Such features include maintenance vehicle pullouts (MVP), gates, contrasting surface treatment areas, steel sleeves for sign posts, slope paving under the bridge, and vegetation control under guardrails.

During the Plans, Specifications and Estimates (PS&E) stage aesthetic treatment should be applied to common concrete features including but not limited to bridge railings, retaining walls, slope paving, contrasting surface treatment areas, and miscellaneous areas in conformance to visual impact recommendations. The Landscape Architect and the Project Engineer are to collaborate and initiate consultation with the local community when required. All aesthetic treatments are to be approved by the District 5 Caltrans Landscape Architect.

Traffic Management Plan
To minimize impact to the traveling public on state highways, a Traffic Management Plan (TMP) was created to identify methods to increase driver awareness, calm speeds, and avoid days that experience unusually high volumes. Minimal delay is anticipated if the TMP is observed. See **Attachment G** for the TMP.

The TMP requires the following:

- Public Awareness Campaign
- Portable Changeable Message Signs
- Construction Area Signs
- Planned Lane Closure Web Site
- Caltrans Highway Information Network (CHIN)
- Construction Zone Enhanced Enforcement Program (COZEEP)
- Lane/Ramp Closure Charts
- Total Facility Closure
- Contingency Plan
- Special Days: Mid-State Fair
- Liquidate Damages Penalty
- Bicycle and Pedestrian Accommodations

Storm Water Best Management Practices
To develop a preliminary storm water evaluation of necessary storm water best

management practices (BMP), the most conservative alternative was chosen. Alternative 1 was determined to have the greatest amount of soil disturbance and new impervious surface, and was used to develop the storm water data report. If an alternative other than Alternative 1 is chosen, the level of impact will likely be reduced.

Temporary Construction Site BMP's
The project proposes to disturb 12.1 acres of soil area and will therefore require a Storm Water Pollution Prevention Plan (SWPPP) and coverage under the Construction General Permit. The cost of temporary construction site BMP's is estimated at 1.5% of the total construction cost. Additionally, a Storm Water Construction Annual Fee for 10 acres per year for 4 years is required.

Maintenance BMP's
During PA&ED, District Maintenance Staff should be consulted to see if Maintenance BMP's are needed. Possible practices are: drainage inlet marker, maintenance vehicle pullout, access fates and roads, and maintenance worker safety features.

Permanent BMP's
The majority of new net impervious surfaces will occur on County right of way. Permanent BMP strategies will be to avoid or minimize permanent water quality impacts. These may include slope/surface protection systems, concentrated flow conveyance systems, or preservation of existing vegetation. These measures will be identified during PA&ED.

As this project will likely create less than 1 acre of new net impervious surface area on Caltrans right of way, permanent storm water treatment BMP strategies are not required within Caltrans right of way. However, the project proposes to create or replace more than 25,000 square feet of impervious surface within County right of way, and so those areas are subject to the post construction runoff control requirements of the County. This project is subject to Performance Requirements 1 through 4 in the Regional Water Quality Control Board (RWQCB) Post Construction Resolution R3-2013-0032. Specific measures can be identified with the County during PA&ED. The County has indicated a desire to use County measures to also solve flooding issues found in the County. Specific locations are identified in the Templeton Drainage and Flood Control Study. One of many examples would be Project #6, which is a detention basin for an unnamed creek just south of Championship Lane in the project vicinity.

The number of BMP's required may be determined to be substantial during PA&ED. The cost of the BMP's may vary.

Exceptions to Design Standards
Throughout the PID development process, Caltrans and SLO County have been in discussion about what design exceptions were needed and what the probability of

approval are. Both mandatory and advisory decisions exceptions are involved with this project; hence, both the Design Coordinator and District Design Delegate participated in a meeting with Design and Project Management to discuss the probability of design exception approval. The follow risk assessment table is the result of such a meeting.

Table 3: Design Standards Risk Assessment

Design Standards Risk Assessment			
Alter-native	**Design Standard from Highway Design Manual Tables 82.1A & 82.1B**	**Probability of Design Exception Approval**	**Justification for Probability Rating**
1 & 3	**Design Exception #1:** Vertical Clearance will remain at 16.1' if the existing Main Street overcrossing bridge is being widened without raising vertical clearance. This would be perpetuating an existing deficiency. **Standard Language:** HDM 309.2(1)(a) (Mandatory) "Freeways and Expressways, All construction except overlay projects – 16 feet 6 inches shall be the minimum vertical clearance over the roadbed of the State facility (e.g., main lanes, shoulders, ramps, collector-distributor roads, speed change lanes, etc.)."	**Alternative 1: Low** **Alternative 3: Medium**	This exception allows the existing bridge to remain in place. **Alternative 1** Lower possibility of approval is due to the fact that special permit oversized vehicles will need to be routed through the local network to bypass the Main Street overcrossing.
2 & 3	**Design Exception #2:** Access rights opposite from ramp terminals would not be acquired if local roads and driveways indicated below are to connect directly across from them. This is a newly created deficiency. **Intersections:** **Alternative 2** Ramada and Northbound Ramp **Alternative 3** Weyrick Driveway and Southbound onramp Main and Theatre Roundabout	**Medium**	**Alternative 2: Ramada and ramp intersection.** Although Ramada is located directly across from the ramp terminals, the zero offset intersection replaces two closely spaced intersections to improve operations. **Alternative 3: Weyrick Driveway and southbound**

	Main and Ramada Roundabout **Standard Language:** HDM 405.10 (14) (Permissive) "The access control standards in Index 504.3(3) and 504.8 apply to roundabouts at interchange ramp intersections." (This is provided to explain the following Mandatory standard's relevance to roundabouts.) HDM 504.8 (Mandatory) "For new construction or major reconstruction, access rights shall be acquired on the opposite side of the local road from ramp terminals to preclude driveways or local roads within the ramp intersection."		**onramp.** The lumberyard driveway is not anticipated to introduce much traffic to affect the operation of the onramp during peak hours. **Roundabouts at Theatre and Ramada.** Although Theatre Drive and the Harris private road are connected to the same roundabout as the ramp terminal, the roundabout replaces two closely spaced intersections to improve operations.
3	**Design Exception #3:** The southbound onramp and Theatre Drive intersection is spaced 333' from the center of the Main and Theatre roundabout. **Standard Language:** HDM 504.3(3) (Mandatory) "The minimum distance (curb return to curb return) between ramp intersections and local road intersections shall be 400 feet."	**Medium**	The onramp intersection on Theatre Drive is proposed at the best location for existing driveway operations and ramp geometry. The nearby roundabout is designed for traffic to pass through without having to stop- thereby minimizing delays. The segment of Theatre Drive between the onramp and the roundabout should experience short queues, if any.

Design Related Studies Needed in PA&ED

During PA&ED, a number of studies will be needed to complete project approval. Design related studies and approvals include:

- Freeway maintenance agreement to identify and delineate the maintenance responsibilities of the County for segments of State Highways in areas within jurisdictions of the County.
- Revised freeway agreement as a result of the need to change the text of the original freeway agreement, its exhibit map, or its agreement limits. Currently, all three viable alternatives make some form of modification to the local road connection with State facilities that is different than what is shown in the original freeway agreement exhibit map. This may require California Transportation Commission (CTC) approval.
- Access control modification. Viable Alternatives 1 and 2 will require CTC approval. Viable Alternative 3 will not.
- Updated traffic counts and study.
- Roundabout fastest path diagrams.
- Evaluation of the need for hybrid or multilane roundabouts instead of single lane roundabouts.
- Roundabout oversized load vehicle provisions.
- Roadway profiles and sight distance.
- Intersection construction staging.
- Life cycle cost analysis.
- Materials report.
- Geotechnical design report.
- Hydraulic study.
- Updated storm water data report.
- Detailed design standards exception evaluation.
- Detailed phasing evaluation.
- Detailed truck turn movement diagrams at all intersections, including side-by-side simultaneous turning where there are dual turn lanes.
- Potential, additional alternatives study based on a different combination of conceptual elements.
- Topographic surveys.

"No Build" Alternative

The Rick Engineering traffic study and draft ICE referenced in this report analyzed the effects of a build-out scenario on existing configurations of the four intersections. All four intersections will experience a LOS of F during the future PM peak hour. Three out of four of the intersections will experience a LOS of F during the AM peak hour. Furthermore, bicyclists and pedestrians will continue to lack facilities for use even as development progresses and generates travel demand.

Rejected Alternatives

Rejected Alternative 1

Combine elements WE2 with EE1 to create a dual five-legged roundabout alternative. Both roundabouts are a five-legged single lane roundabout. On the west side, south Theatre access would be terminated with a cul-de-sac and traffic would be diverted to Championship lane by extending Main through the Harris property. The Main Street

overcrossing bridge could be widened or completely replaced. This alternative was rejected by the public due to its inclusion of roundabouts as an intersection control. Additionally, the reconstruction of North Main Street to connect to Championship Lane was met with resistance because it encroached on a private parcel and provided no apparent turnaround opportunity if a truck were to accidentally enter onto it. See **Attachment D** for a layout of this rejected alternative.

Rejected Alternative 2
Combine elements WE2 and EE5 to create a western five-legged roundabout and an eastern clover leaf loop ramps at the Ramada intersection. The west side is the same as Rejected Alternative 1. The east side northbound ramp intersection and Ramada Drive intersection will be replaced with a four-legged signalized intersection. The tight diamond ramps will be replaced with a single quadrant cloverleaf combined loop ramp. This alternative was rejected by the public due to its inclusion of roundabouts as an intersection control. See **Attachment D** for a layout of this rejected alternative.

Rejected Alternative 3
Combine elements WE4 and EE2 to create a western four-legged roundabout and eastern realignment of Ramada intersection. In addition to the west roundabout, construct a new alignment to connect the southern approach of Theatre Drive to Theatre Drive north of the new roundabout to help reduce the number of legs at the roundabout and to ensure adequate intersection spacing. Realign Ramada Drive to intersect Main Street farther to the south to provide standard intersection spacing. Widen Main Street overcrossing bridge or completely replace the bridge.
This alternative was rejected by the public due to its inclusion of roundabouts as an intersection control. The public also did not accept the new segment of Theatre drive connecting the development to the new intersection to the north because of the increased out of way travel it produces. Additionally, the eastern element required significant take on the Mandrille and Miller parcels. See **Attachment D** for a layout of this rejected alternative.

Rejected Alternative 4
Combine elements WE4 and EE3 to create a western four-legged roundabout and eastern realigned Main and Ramada intersection. The west side is the same as Rejected Alternative 3. Realign Ramada Drive and Main Street towards the east to provide standard intersection spacing. Widen Main Street overcrossing bridge or completely replace the bridge. This alternative was rejected by the public for the same reason as Rejected Alternative 3. See **Attachment D** for a layout of this rejected alternative.

8. RIGHT OF WAY

Under cooperative agreement, the County developed the conceptual right of way data sheet. See **Attachment K** for the conceptual right of way data sheet. Table 4 below summarizes the quantity right of way impact on each parcel west and east of the interchange. Alternative 1 has the greatest right of way impacts at 11.4 acres,

Alternative 2 has less right of way impacts at 6.8 acres, and Alternative 3 has the least right of way impacts at 2.8 acres.

Table 4: Right of Way Impact Areas

WEST PARCEL AREA (ACRES)				
ALTERNATIVES		**1**	**2**	**3**
040-201-023	Dusi	2.5	3.7	1.1
040-131-042	Dusi	4.7	0.1	
040-131-019	Templeton Cemetery	0.1		
040-201-045	Harris Driveway			0.1
040-201-046	Weyrick (Diamond)			0.1
Subtotal Area		7.3	3.8	1.3
EAST PARCEL AREA (ACRES)				
ALTERNATIVES		**1**	**2**	**3**
040-211-016	Mandrille	0.5	1.4	1.2
040-201-025	Weyrick		1.5	0.3
040-201-038	Sheriff		0.1	
040-211-009	GV4	3.6		
Subtotal Area		4.1	3.0	1.5
TOTAL AREA		**11.4**	**6.8**	**2.8**

Alternative 1: Four partial acquisitions are anticipated. Two of the properties are zoned as Commercial Service or Commercial Retail while one is zoned as Public Facility. The fourth ownership is zoned residential rural and currently planted in vineyard. Minor improvements and one condemnation are anticipated. Severance damages are also estimated for each property.

Alternative 2: Two partial and one full acquisition are anticipated. Two of the three properties are zoned as Commercial Service while one is zoned Residential Rural and currently planted in vineyard. Minor improvements and one condemnation are anticipated. Acquisition of uneconomic remnant assumed on full acquisitions. Severance damages are also estimated for partial acquisitions.

Alternative 3: Five partial acquisitions are anticipated. Four of the five properties are zoned as Commercial while one is zoned as Residential Rural and currently planted in vineyard. Minor improvements and two condemnation are anticipated. Severance damages are also estimated for partial acquisitions.

Appraisals and acquisitions will be performed either by consultants or County staff.

Utilities
Under cooperative agreement, utility research was conducted by the County. Caltrans

conducted a field review. The following utilities were preliminarily identified throughout the project area:

- Templeton Community Service District water line(s)
- AT&T underground and overhead telephone line(s)
- AT&T underground fiber optic line(s)
- PG&E overhead electrical line(s)
- Southern California Gas high pressure natural gas line(s)

Utility relocations are assumed to be necessary within County right of way. Utility replacement easements are not required. Utility verification by potholing will be required at a later stage.

Railroad
Railroad facilities or right of way will not be affected by this project.

9. STAKEHOLDER INVOLVEMENT

San Luis Obispo County (County) and San Luis Obispo Council of Governments (SLOCOG) were active participants in nearly all PDT meetings held for this project. Shortly after the project kick-off meeting, Caltrans and the County developed the purpose and need statement together. Caltrans and the County introduced the project to the Templeton Area Advisory Group (TAAG) during a regularly scheduled TAAG board meeting on January 19, 2017. Caltrans, the County, and SLOCOG held a Town Hall Meeting on March 13, 2017 to introduce the project and the alternatives at that time to the public. This meeting was well attended and generated much public feedback. Caltrans, the County, and SLOCOG in partnership with TAAG held a subsequent Town Hall Meeting on December 6, 2017 to present a project update to the public, which included revised alternatives that addressed previous public feedback.

Between the two Town Hall Meetings, SLOCOG endeavored in a public outreach campaign on the operations and benefits of roundabouts. Said campaign involved a SLOCOG Special Board Meeting held on the morning of September 6, 2017 where a presentation was given on the topic of “Roundabouts Presentation: Operations, Benefits, Samples”. Representatives from Caltrans, Federal Highway Administration (FHWA), and private consultants were present at this Board meeting to answer questions. That afternoon representatives from Caltrans, FHWA, the County, and SLOCOG performed a field visit to various project sites within San Luis Obispo County that consisted of roundabouts as a viable alternative. The Main Street Interchange Project was one of the sites visited. During the late afternoon of September 6, 2017, a meeting was held with San Luis Obispo County wide public officials, public works and community development employees, transportation committee members, transportation advocates, and private consultants to discuss the operations and benefits of roundabouts. Representatives from Caltrans, FHWA, the

County, and SLOCOG were present to facilitate this late afternoon meeting and answer questions.

10. ENVIRONMENTAL DETERMINATION/DOCUMENT

Preliminary Environmental Analysis Report Summary

The anticipated environmental document for the project is an Initial Study (IS) with a proposal for a Mitigated Negative Declaration (MND) for the California Environmental Quality Act (CEQA) and Categorical Exclusion for the National Environmental Protection Act (NEPA). These documents are based on the impacts to Agricultural Resources and the related, potential growth inducing impacts. All other impacts would likely be mitigatable to a level of insignificance. Caltrans will serve as the NEPA lead agency under its assumption of responsibility pursuant to 23 U.S. Code 327. Caltrans will also serve as the CEQA lead agency. The estimated time to obtain environmental approval is 24 months from the start of environmental studies. Assuming a start date of March 2019, the final environmental document completion would be anticipated by June 2021.

It is anticipated multiple environmental studies and reports will be required for this Project- including but not limited to: growth, farmland, archaeology, historic resource, historic property, Native American coordination, geological, initial site assessment, storm water, noise, and air quality. A natural environment study of minimal impact may also be required.

The consideration of agricultural resources will be the critical path for the delivery of the environmental document. Permanent impacts resulting from the alternatives include the loss of prime soils and a portion of the Dusi Vineyard, portions of which may have been in existence since approximately 1945. There are few feasible mitigation measures to address significant impacts to prime soils and established agricultural operations, none of which could be implemented on property owned by Caltrans or the County. In the event that Alternative 3 is the preferred alternative, due to its reduced impacts to agricultural resources, the appropriate CEQA document may be a Mitigated Negative Declaration, which would cost less and be completed more quickly.

It is unlikely that a 401,404, and 1602 permit would be required from the RWQCB, United States Army Corps of Engineers and California Department of Fish and Wildlife, respectively. Post-construction storm water measures will be required and may need to be implemented offsite. Construction monitoring and mitigation is expected to be standard and relatively limited for this project, except for agricultural mitigation. If it is necessary to purchase a conservation easement on agricultural property, for example, mitigation costs could exceed $400,000 for Alternative 1.

Climate Change

Climate Change considerations were evaluated, and it was determined that existing features are adequate and no opportunities were found to include Climate Change.

This project is not in a coastal zone, and it is not within the 100 or 500 year flood zone. There are no climate change or sea level rise concerns for this location.

Greenhouse Gas Emissions
Greenhouse Gas emissions analysis is being deferred to PA&ED.

Hazardous Waste
An Initial Site Assessment is necessary in PA&ED to determine the presence and possible limits of contamination throughout the project area as a result of aerially deposited lead, lead in old thermoplastic markings, and treated wood waste.

11. FUNDING

The County anticipates the majority of the funding needed for PA&ED to come from the Road Improvement Fee (RIF), which is a development impact fee. Funds for the PS&E, Right of Way and Construction have yet to be determined. The SLOCOG (San Luis Obispo Council of Governments) 2014 Regional Transportation Plan (RTP) lists this project as being on a Route of Regional Significance (RORS), which may be fundable (constrained) using a combination of highway State Transportation Improvement Program (STIP) funds, federal discretionary Regional Surface Transportation Program (RSTP) funds, and Congestion Mitigation and Air Quality (CMAQ) funds. The project development team believes nothing precludes this project from receiving federal-aid funding; therefore, it has been determined that this project is eligible for Federal-aid funding.

Capital Outlay Project Estimate

Alternative	Range of Estimate			
	Roadway & Structures	Environmental	Right-of-Way*	Total
1	$14.0 - 20.1M	$0.7-1.0M	$5.9 - 8.9M	$21 - 30M
2	$14.5 - 20.8M	$0.7-1.0M	$5.5 - 8.2M	$21 - 30M
3	$11.2 - 16.4M	$0.3-0.5M	$2.5 - 3.8M	$14 - 21M

*** Escalated and Includes Shared Utility Costs**

For the purpose of the PID to estimate PA&ED support cost, the project estimate is provided as a range by employing different methods. For roadway and right of way costs, the average cost was adjusted 20% up and down to estimate the high and low estimates, respectively. Structures estimated their low and high values by the inclusion or exclusion of extra staging, aesthetic needs, and unit cost variation. For the environmental cost estimate, costs range with the extent of environmental commitments towards biological resources and agricultural mitigation.

The level of detail available to develop these capital outlay project estimates is only

accurate to within the above ranges and is to be used for long-range planning purposes. The capital outlay project estimates should not be used to program or commit State-programmed capital outlay funds. See **Attachment M** for more information.

Capital Outlay Support Estimate
Capital outlay support estimate for PA&ED is $1,700,000 and would be funded entirely from Local Road Impact Fees. Oversight work performed by Caltrans staff would not be reimbursed and is estimated to cost approximately $200,000.

12. DELIVERY SCHEDULE

Project Milestones		Scheduled Delivery Date (Month/Day/Year)
Program Project	M015	12/31/18
Begin Environmental	M020	3/1/19
Circulated DED Externally	M120	9/1/20
PA&ED	M200	6/1/21

The anticipated funding fiscal year for construction is 2024/25.

13. RISK
Risks associated with this project can affect scope, schedule and cost. There are twenty-four active risks identified in the Risk Register. Ten of the twenty-four risks have a probability or impact factor at 'high' or above. They are summarized below.

Storm Water

- Off-site mitigation requested by the County took place during the later stages of the PSR-PDS development so details are still premature. Further details may significantly alter the project scope and cost.

Design

- Alternatives 1 and 2 may require California Transportation Commission approval for access control modification and new/modified connection to the existing Freeway Agreement.
- Variation of bid prices over time may lead to a substantial increase of the project estimate

Project Management

- Lack of available funding for will place project success at risk.
- Alternatives may be controversial- thereby requiring more stakeholder involvement.

Environmental

- If blue line streams affected are jurisdictional either in the north or south end of the project limit, more permits may be required.
- Significant permanent impacts that cannot be mitigated below threshold will require an Environmental Impact Report, which will affect project schedule and support costs.
- Comments for environmental document or permits may reveal difficulty in public acceptance of the project.
- Potential future project scope changes may require additional permits or additional unplanned site reviews.

Right of Way

- Some project alternatives may require the acquisition and/or easement of privately held property.

These and all other risks associated with this project are documented in the Risk Register and can be found in **Attachment L.**

14. EXTERNAL AGENCY COORDINATION

Federal Highway Administration (FHWA)

This project has not been identified as a "Project of Division Interest" nor a "Project of Corporate Interest." If this project is approved for federal-aid project funds, FHWA will need to obligate funds and approve federal-aid project agreement, modifications, and project closures.

California Department of Fish and Wildlife, Regional Water Quality Control Board, and United States Army Corps of Engineers

There is a blue line stream located toward the northern end of the project. If that line is jurisdictional to any of the three above agencies and the project impacts the blue line, permits may be required from the respective jurisdictions.

United States Fish and Wildlife Services and National Marine Fisheries Service

Consultation with the two agencies listed above is not likely needed.

15. PROJECT REVIEWS

Caltrans Design Team Field Review		Date	August 23, 2016
Project Sponsor	Colt Esenwein	Date	June 18, 2018
SLOCOG	John Dinunzio	Date	April 23, 2018
Project Manager	Paul Valadao	Date	April 23, 2018
District Division Chief of Planning	Aileen Loe	Date	June 18, 2018
District Safety Review	Waived	Date	
Design Peer Review	Waived	Date	

Constructability Review Circulation _____ Date April 6, 2018
District Review Circulation _____ Date April 6, 2018
Design Office Chief Review David Fapp Date May 22, 2018

16. PROJECT PERSONNEL

Name, Title	**Phone #**
Joshua Roberts, Transp. Planning Manager, SLO Co. Public Works	805-781-1406
Genaro Diaz, Project Manager, SLO County Public Works	805-781-5279
Cori Marsalek, Project Manager, SLO County Public Works	805-781-4995
Keith Miller, Environmental, SLO County Public Works	805-781-5714
Kate Ballantyne, Environmental, SLO County Public Works	805-788-2765
Phil Acosta, Right of Way, SLO County Public Works	805-781-5252
Richard Murphy, Programming, SLOCOG	805-781-5754
John Dinunzio, Programming, SLOCOG	805-781-5764
Paul Valadao, Project Manager, Caltrans	805-549-3016
David Beard, Design Manager, Caltrans	805-549-3438
Jackson Ho, Project Engineer, Caltrans	805-549-3137
Michael Downs, Structures Technical Liaison, Caltrans	916-227-9365
Bing Yu, Traffic Operations, Caltrans	805-549-3664
Marshall Garcia, Right of Way Chief, Caltrans	805-549-3471
Jimmy Ochoa, Advance Planning, Caltrans	805-549-0209
Cindy Utter, Transportation Planning, Caltrans	805-549-3648
Melissa Streder, Transportation Planning, Caltrans	805-549-3800
Matt Fowler, Environmental Planning (Oversight), Caltrans	805-549-4603
Pete Riegelhuth, Storm Water Coordinator, Caltrans	805-549-3375
Jim Mills, Hydraulics, Caltrans	805-549-3679
Scott Dowlan, Landscape, Caltrans	805-542-4750

17. ATTACHMENTS

A. Location map (1)
B. Project Study Area (1)
C. Conceptual Elements (5)
D. Project Alternatives Layouts (10)
E. Typical Cross Sections (1)
F. Transportation Planning Scoping Information Sheet (7)
G. Traffic Management Plan (1)
H. Structures Conceptual Planning Study (5)
I. Preliminary Environmental Analysis Report (20)
J. Storm Water Data Report-signed cover sheet (1)
K. Conceptual Right of Way Data Sheets (10)
L. Risk Register (3)
M. Capital Outlay Project Estimate (9)
N. As-Built (11)
O. Final Distribution List (2)

ATTACHMENT A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SLO	101	52.4		

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON AND ADJACENT TO

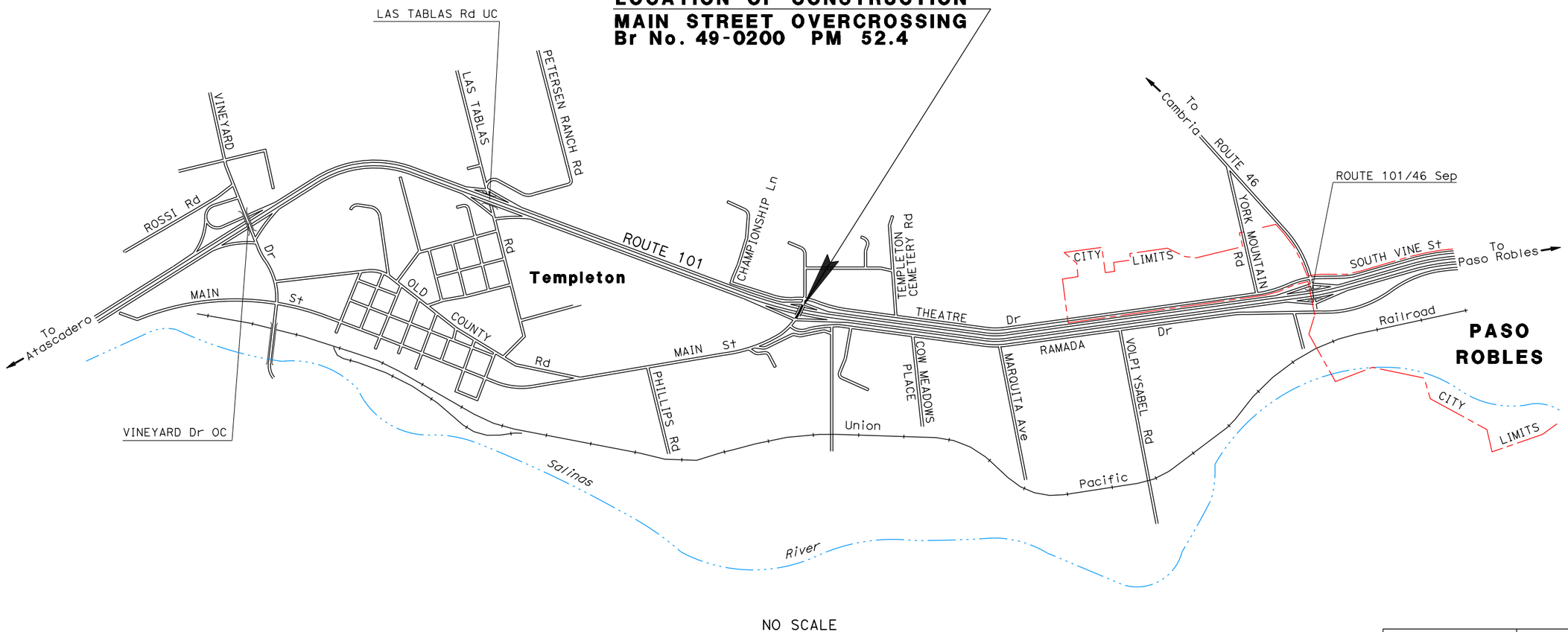
STATE HIGHWAY

IN SAN LUIS OBISPO COUNTY
IN TEMPLETON
AT ROUTE 101/MAIN STREET INTERCHANGE

LOCATION MAP

PRELIMINARY PLANS
Subject To Revision

LOCATION OF CONSTRUCTION
MAIN STREET OVERCROSSING
Br No. 49-0200 PM 52.4



NO SCALE

PROJECT MANAGER	PAUL VALADAO
DESIGN MANAGER	DAVID BEARD

CONTRACT No.	05-0M460K
PROJECT ID	0500020023

LAST REVISION
DATE PLOTTED => 01-MAY-2018
TIME PLOTTED => 11:29

ATTACHMENT B

PROJECT STUDY AREA

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SLO	101	52.4		

REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

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THEATRE DRIVE
RAMADA DRIVE
US101
MAIN STREET
MAIN STREET OVERCROSSING
US101
MAIN STREET
THEATRE DRIVE
CHAMPIONSHIP LANE

SCALE: 1' = 400'

PRELIMINARY PLANS
Subject To Revision

REVISED BY	DATE REVISED
JACKSON HO	

CALCULATED-DESIGNED BY
CHECKED BY

FUNCTIONAL SUPERVISOR: DAVID BEARD

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION: DATE PLOTTED => 22-MAR-2018
03-22-18 TIME PLOTTED => 15:41

BORDER LAST REVISED 7/2/2010

USERNAME => s131692
DGN FILE => 05-0M460 Project Study Area.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1447

PROJECT NUMBER & PHASE 0500020023

ATTACHMENT C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SLO	101	52.4		

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REMOVAL

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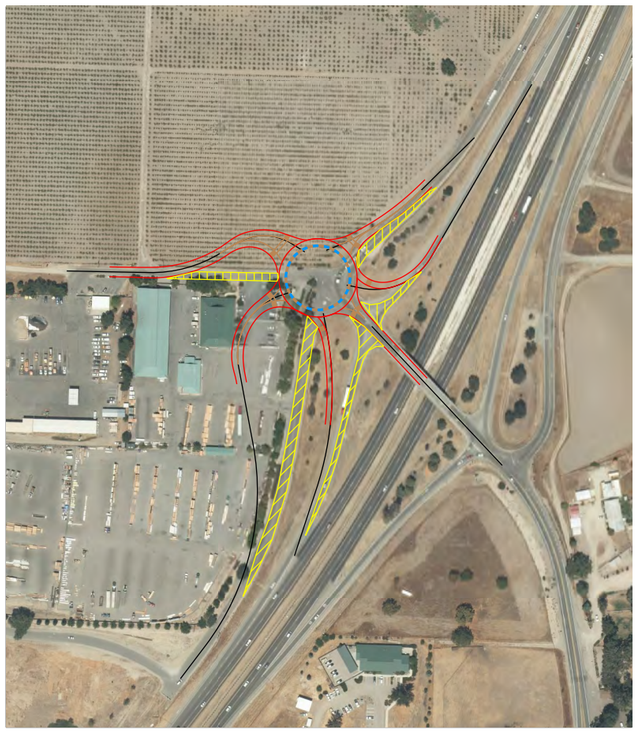

DISMISSED BY PDT DUE TO LARGE ICD
AND COMPLEXITY OF ROUNDABOUT

West Element 2

PART OF REJECTED ALTERNATIVE 1

West Element 3

DISMISSED BY PDT DUE TO
OPERATIONAL FAILURE ON MAIN STREET
OVERCROSSING AT SOUTHBOUND RAMPS

PRELIMINARY PLANS
Subject To Revision

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CHECKED BY		DATE REVISED	
FUNCTIONAL SUPERVISOR	DAVID BEARD		
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN		

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TIME PLOTTED => 15:44

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SLO	101	52.4		

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REMOVAL

WEST ELEMENTS

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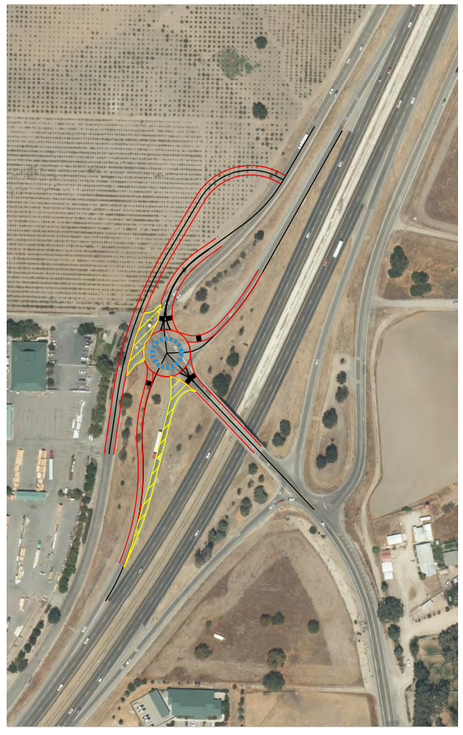

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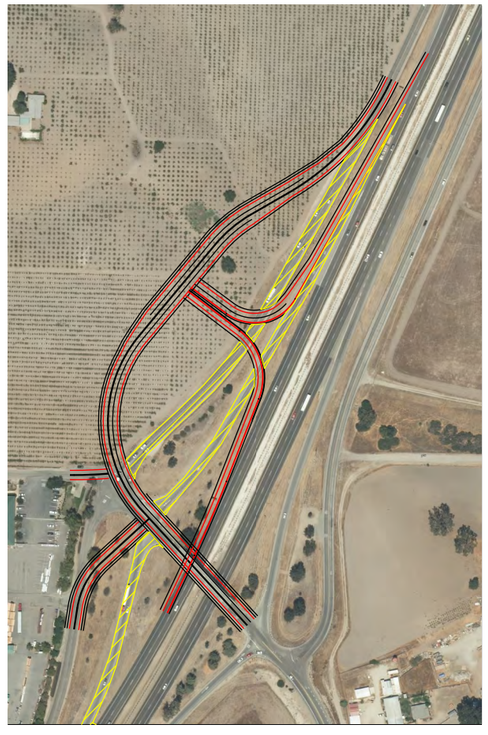
AND REJECTED ALTERNATIVE 4

West Element 5A



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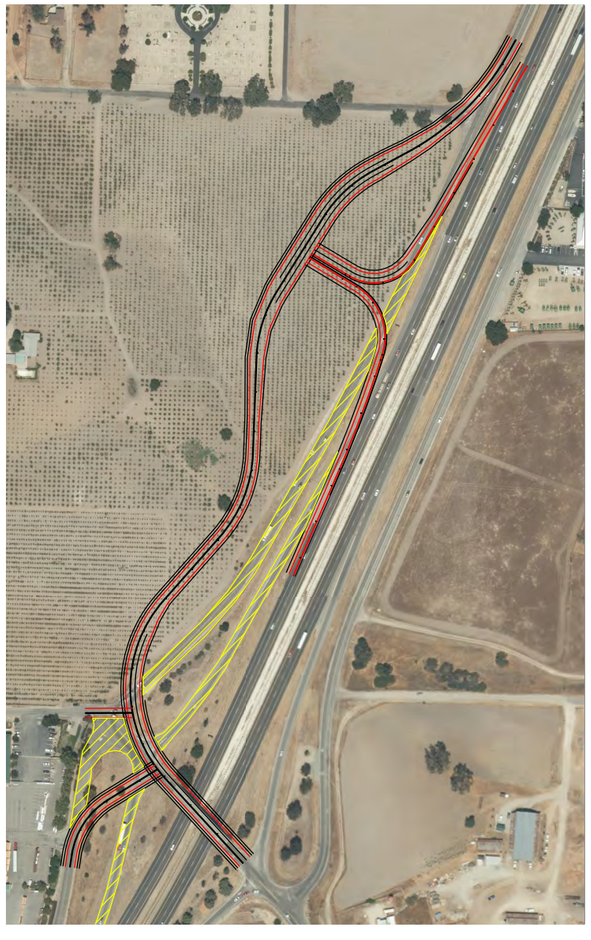

PART OF ALTERNATIVE 1

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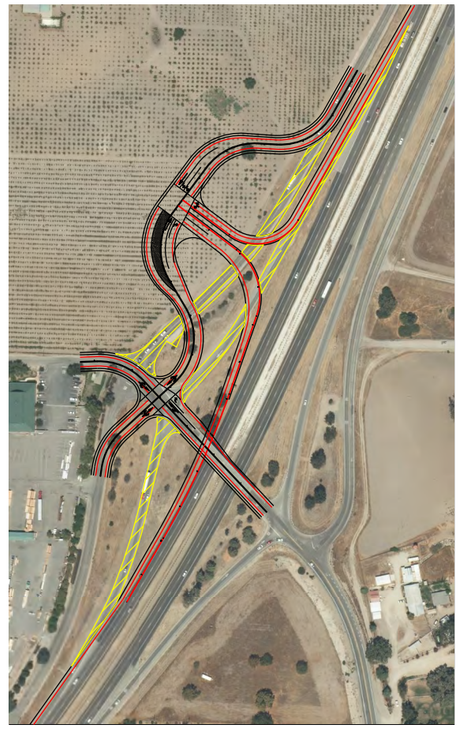

DISMISSED BY PDT DUE TO
POOR OPERATIONAL PERFORMANCE
AT MAIN AND THEATRE SIGNALIZED
INTERSECTION

PRELIMINARY PLANS
Subject To Revision

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FUNCTIONAL SUPERVISOR	DAVID BEARD		
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN		

LAST REVISION DATE PLOTTED => 04-APR-2018
TIME PLOTTED => 15:45

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SLO	101	52.4		

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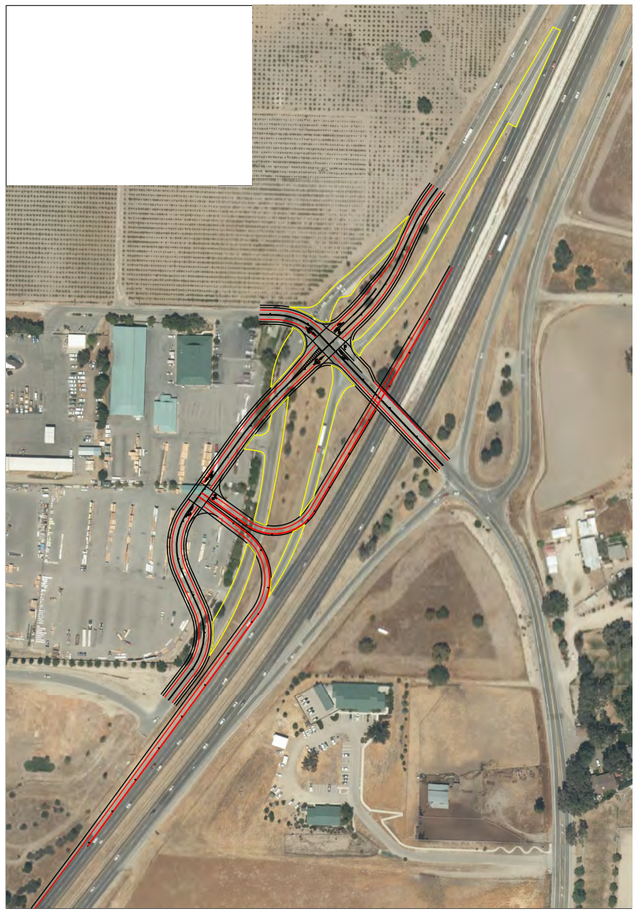
REMOVAL

WEST ELEMENTS

West Element 6A



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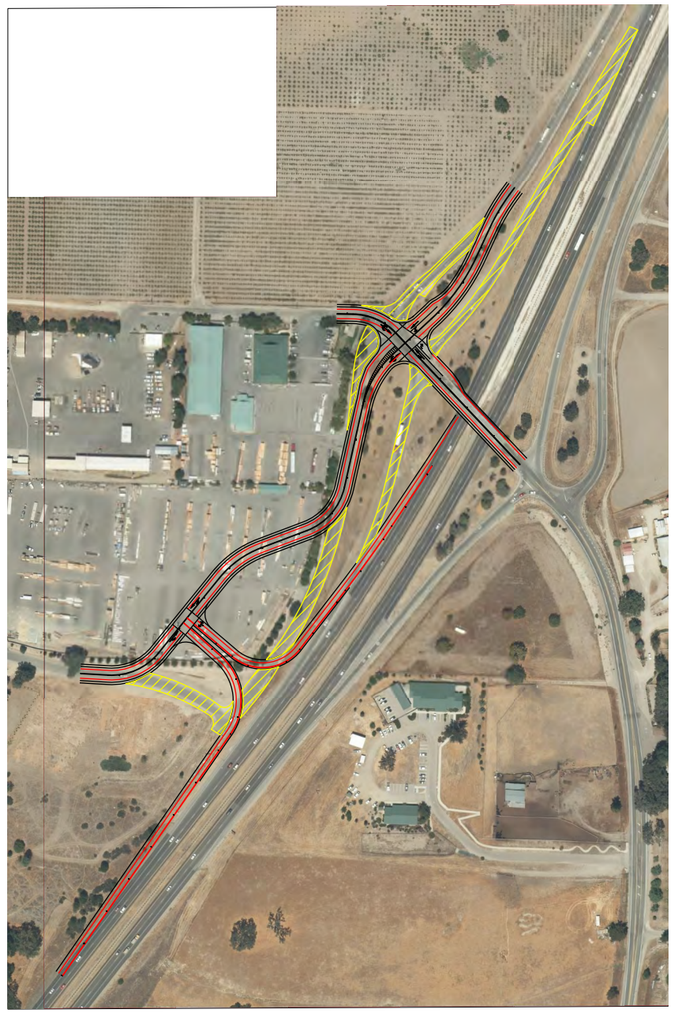

DISMISSED DUE TO R/W IMPACT

West Element 7

PART OF ALTERNATIVE 3

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Subject To Revision

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SLO	101	52.4		

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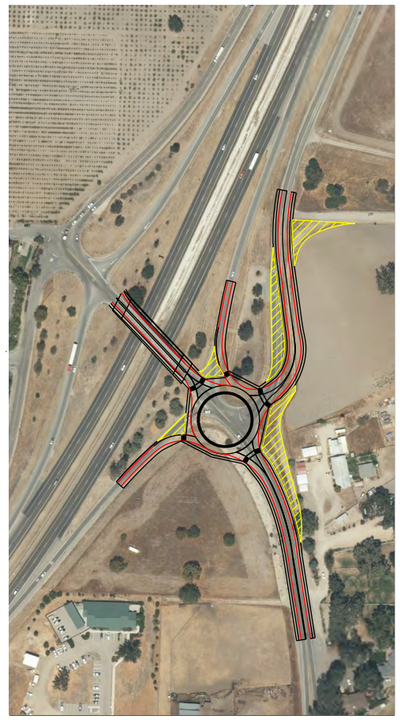
REMOVAL

EAST ELEMENTS

East Element 1



PART OF ALTERNATIVE 3

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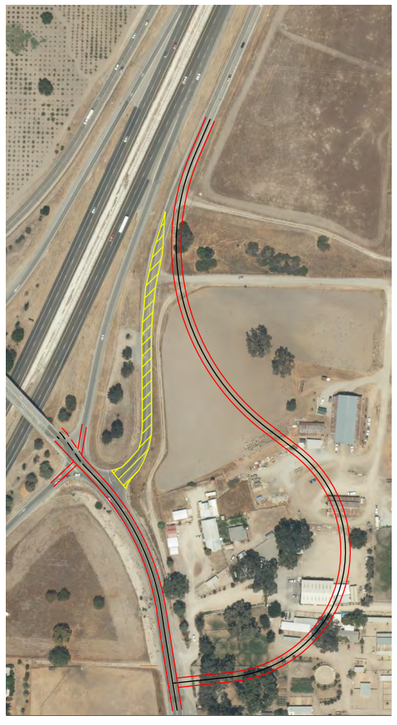

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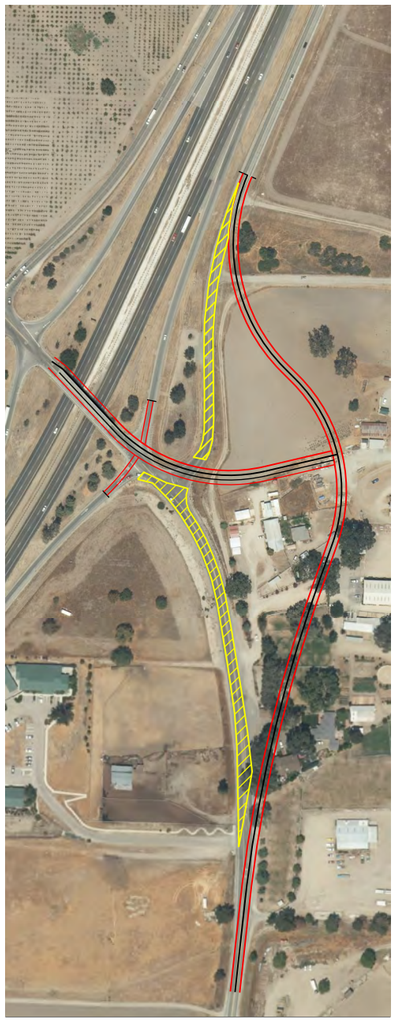

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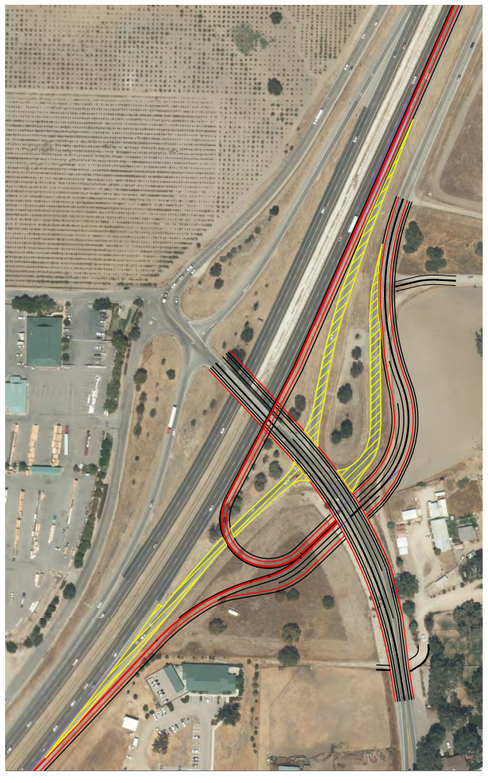
East Element 5



PART OF ALTERNATIVE 2

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TIME PLOTTED => 15:25

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USERNAME => s131692
DGN FILE => 05-0M460 East Elements List.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1447

PROJECT NUMBER & PHASE 0500020023

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SLO	101	52.4		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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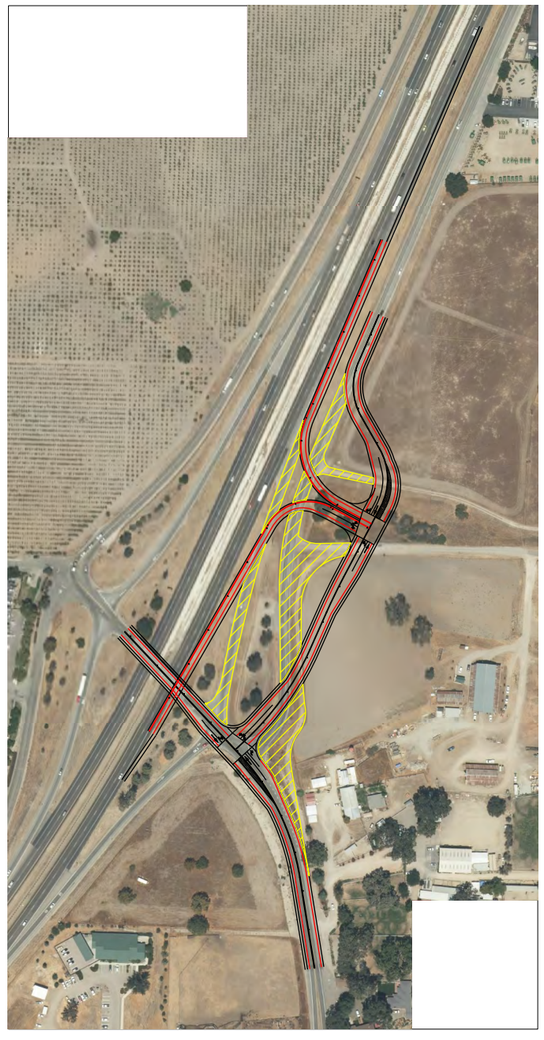
REMOVAL

EAST ELEMENTS

East Element 6A



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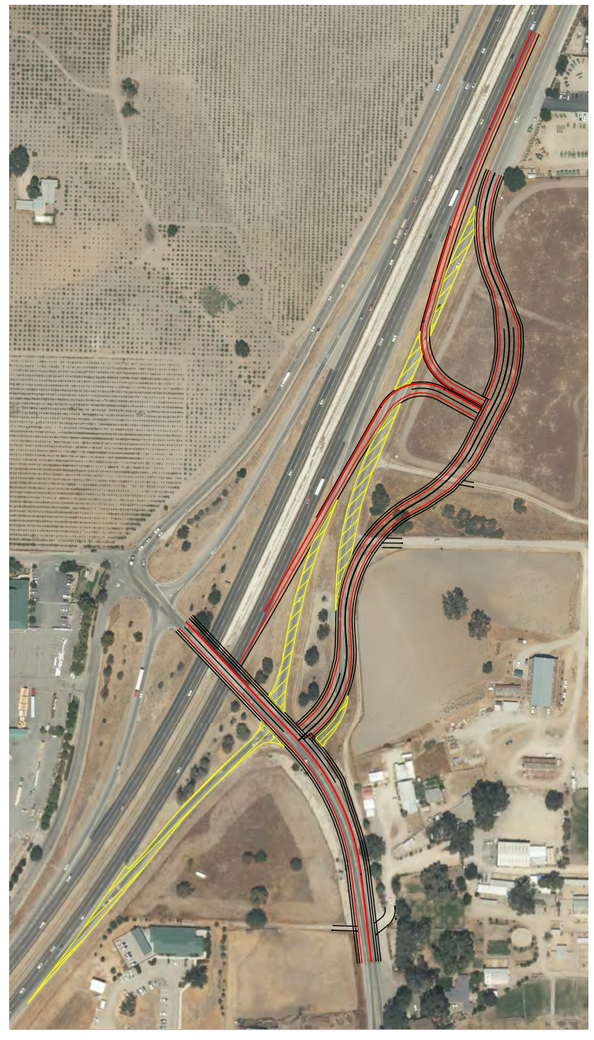
EE6A CLEAR IS SIMILAR BUT CAN AVOID MANDRILLE FOR THE MOST PART.

East Element 6A Clear



PART OF ALTERNATIVE 1

PRELIMINARY PLANS
Subject To Revision

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY

CHECKED BY

FUNCTIONAL SUPERVISOR: DAVID BEARD

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

LAST REVISION DATE PLOTTED => 04-APR-2018
TIME PLOTTED => 15:31

ATTACHMENT D

NOTES

1. Replace with higher bridge

ESTIMATED RIGHT OF WAY IMPACT

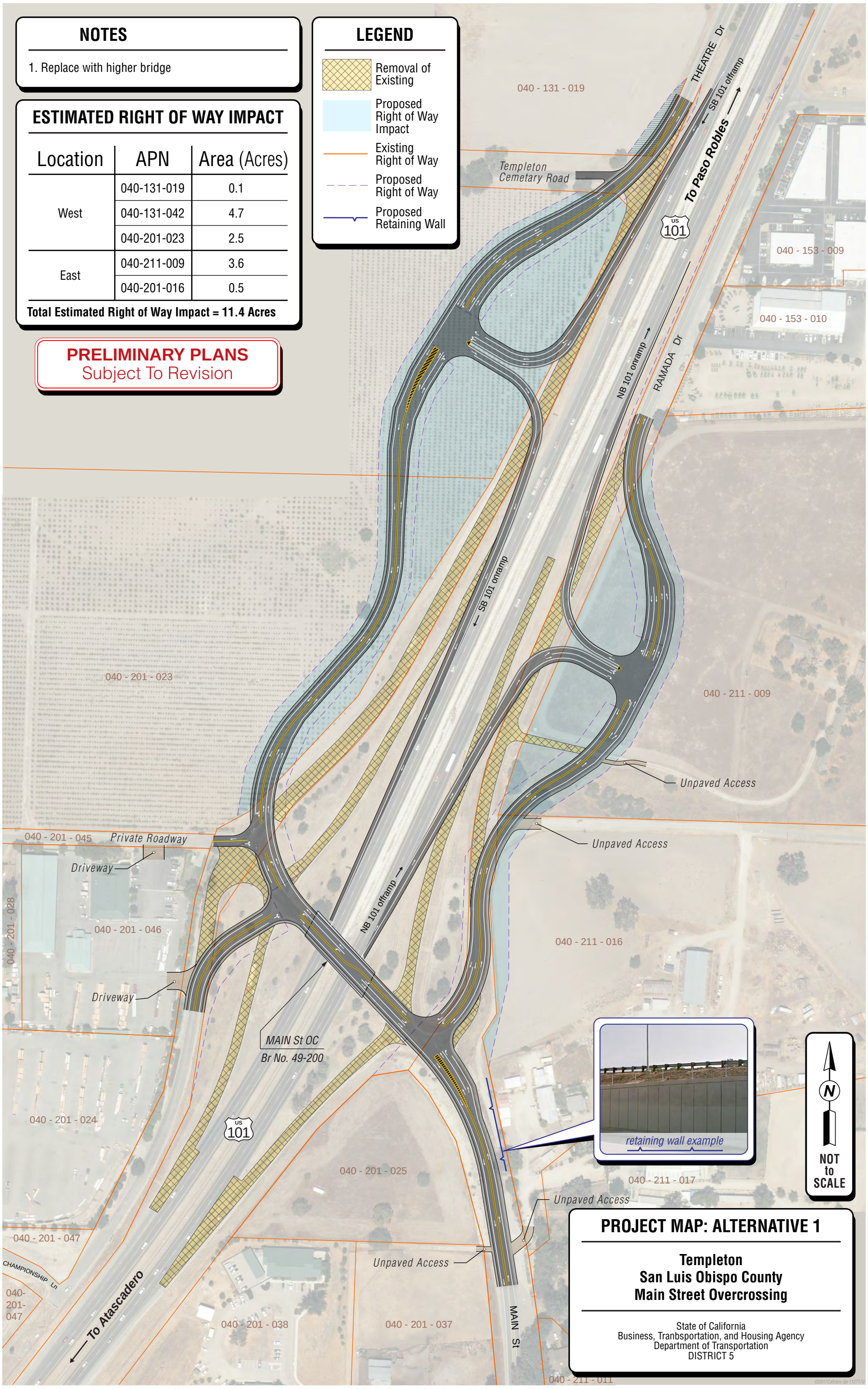
Location	APN	Area (Acres)
West	040-131-019	0.1
	040-131-042	4.7
	040-201-023	2.5
East	040-211-009	3.6
	040-201-016	0.5

Total Estimated Right of Way Impact = 11.4 Acres

PRELIMINARY PLANS
Subject To Revision

LEGEND

- Removal of Existing
- Proposed Right of Way Impact
- Existing Right of Way
- Proposed Right of Way
- Proposed Retaining Wall



NOT to SCALE

PROJECT MAP: ALTERNATIVE 1

Templeton
San Luis Obispo County
Main Street Overcrossing

State of California
Business, Tranbsportation, and Housing Agency
Department of Transportation
DISTRICT 5

NOTES:

1. DESIGN EXCEPTIONS:
   -VERTICAL CLEARANCE 16.1′ < 16.5′ (MANDATORY), IF BRIDGE SOFFIT IS TO REMAIN THE SAME. CURRENTLY, THE PLAN IS TO REPLACE THE BRIDGE AND RAISE THE SOFFIT.
2. BOTH HOOK RAMP INTERSECTIONS WARRANT SIGNALS.
3. BRIDGE DOES NOT REQUIRE LENGTHENING NOR REPLACEMENT.

LEGEND:

REMOVAL OF EXISTING

PROPOSED Ret WALL

CURVE DATA

No. ⊕	R	Δ	T	L
1	588′	34°55′18"	185.00′	358.48′
2	250′	51°23′46"	120.31′	224.26′
3	340′	63°42′51"	211.28′	378.09′
4	340′	32°12′47"	98.18′	191.16′
5	340′	51°33′18"	164.20′	305.93′
6	340′	47°34′12"	149.85′	282.29′
7	120′	89°16′17"	118.48′	186.97′
8	150′	77°16′21"	119.90′	202.30′
9	3000′	07°53′58"	207.13′	413.61′
10	328′	67°45′02"	220.20′	387.85′
11	340′	39°21′14"	121.58′	233.53′
12	340′	29°58′33"	91.03′	177.88′
13	340′	29°25′41"	89.29′	174.63′
14	643′	32°43′15"	188.76′	367.21′
15	3000′	05°40′33"	148.71′	297.18′
16	150′	76°38′09"	118.54′	200.63′
17	120′	90°35′07"	121.23′	189.72′

PRELIMINARY PLANS
Subject To Revision

Templeton
TEMPLETON CEMETARY RD
To Paso Robles
RAMADA Dr
"MAIN TO THEATRE" LINE
"SB OFFRAMP" LINE
"SB ONRAMP" LINE
THEATRE Dr
"RAMADA" LINE
"NB ONRAMP" LINE
ROUTE 101
"MAIN TO THEATRE" LINE
"NB OFFRAMP" LINE
UNPAVED ACCESS
PRIVATE ROADWAY
UNPAVED ACCESS
"THEATRE SOUTH" LINE
"RAMADA" LINE
MAIN St OC
Br No. 49-200
221′ RETAINING WALL
Approx 6′ HEIGHT
THEATRE Dr
"MAIN" LINE
UNPAVED ACCESS
UNPAVED ACCESS
CHAMPIONSHIP Ln
To Atascadero
MAIN St

STATE OF CALIFORNIA
BUSINESS, TRANSPORTATION AND HOUSING AGENCY
DEPARTMENT OF TRANSPORTATION
DISTRICT 5

PROJECT MAP
IN SAN LUIS OBISPO COUNTY
IN TEMPLETON
AT MAIN STREET OVERCROSSING

ALTERNATIVE 1
ROADWAY

COUNTY	ROUTE	POST MILES TOTAL PROJECT	SCALE	SHEET
SLO	101	52.4	1"=200′	1

LAST REVISION 10-05-17
DATE PLOTTED => 20-DEC-2017
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USERNAME => s131692
DGN FILE => 05-0M460 Alternative 1 Roadway 2017-10-05.dgn

UNIT 1447

PROJECT NUMBER & PHASE 0500020023K

NOTES

1. Replace with higher and longer bridge

ESTIMATED RIGHT OF WAY IMPACT

Location	APN	Area (Acres)
West	040-201-023	3.7
	040-131-042	0.1
East	040-211-016	1.4
	040-201-025	1.5
	040-201-038	0.1

Total Estimated Right of Way Impact = 6.8 Acres

PRELIMINARY PLANS
Subject To Revision

LEGEND

- Removal of Existing
- Proposed Right of Way Impact
- Existing Right of Way
- Proposed Right of Way
- Proposed Retaining Wall

040 - 131 - 042
040 - 153 - 010
THEATRE Dr
SB 101 offramp
To Paso Robles
US 101
NB 101 onramp
040 - 201 - 023
040 - 211 - 009
RAMADA Dr
040 - 201 - 045
Private Roadway
Driveway
Unpaved Access
040 - 201 - 028
040 - 201 - 046
040 - 211 - 016
Driveway
THEATRE Dr
MAIN St OC
Br No. 49-200
040 - 201 - 024
retaining wall example
040 - 201 - 025
Unpaved Access
CHAMPIONSHIP Ln
040 - 201 - 047
SB 101 onramp
Unpaved Access
040 - 211 - 017
040 - 201 - 047
US 101
MAIN St
040 - 201 - 038
040 - 201 - 037
040 - 211 - 011
NB 101 offramp
To Atascadero
040 - 201 - 033

N

NOT to SCALE

PROJECT MAP: ALTERNATIVE 2

Templeton
San Luis Obispo County
Main Street Overcrossing

State of California
Business, Tranbsportation, and Housing Agency
Department of Transportation
DISTRICT 5

NOTES:

1. DESIGN EXCEPTIONS:
   -ACQUIRE ACCESS CONTROL OPPOSITE TO RAMP TERMINALS (MANDATORY)
2. REQUIRES LENGTHENING OF BRIDGE SPANS DUE TO PROPOSED ON-RAMPS.
3. REQUIRES COMPLETE BRIDGE REPLACEMENT DUE TO COMPLEXITY OF STAGING WIDENING AND LENGTHENING WHILE CONSIDERING THE AGE OF THE BRIDGE.

CURVE DATA

No. ⊕	R	Δ	T	L
1	1100′	33°38′49"	332.72′	646.21′
2	550′	29°51′59"	146.68′	286.70′
3	200′	26°54′37"	47.85′	93.93′
4	120′	161°25′47"	733.99′	338.10′
5	250′	66°18′45"	163.32′	289.34′
6	643′	40°04′05"	234.47′	449.66′
7	3000′	03°55′48"	102.92′	205.77′
8	150′	74°05′14"	113.21′	193.96′
9	120′	96°59′02"	135.60′	203.12′
10	340′	15°06′48"	45.10′	89.68′
11	340′	20°14′16"	60.68′	120.09′
12	643′	33°24′44"	192.98′	374.97′
13	200′	38°37′22"	70.08′	134.82′

LEGEND:

REMOVAL OF EXISTING

PROPOSED Ret WALL

PRELIMINARY PLANS
Subject To Revision

Templeton

To Paso Robles

THEATRE Dr

RAMADA Dr

ROUTE 101

"SB OFFRAMP" LINE

"MAIN TO THEATRE" LINE

"SB ONRAMP" LINE

PRIVATE ROADWAY

UNPAVED ACCESS

"RAMADA" LINE

"THEATRE SOUTH" LINE

MAIN St OC
Br No. 49-200

420′ RET WALL
Approx 6′ HEIGHT

"NBONRAMP" LINE

"MAIN" LINE

UNPAVED ACCESS

UNPAVED ACCESS

"NBOFFRAMP" LINE

MAIN St

CHAMPIONSHIP Ln

THEATRE Dr

To Atascadero

STATE OF CALIFORNIA
BUSINESS, TRANSPORTATION AND HOUSING AGENCY
DEPARTMENT OF TRANSPORTATION
DISTRICT 5

PROJECT MAP
IN SAN LUIS OBISPO COUNTY
IN TEMPLETON
AT MAIN STREET OVERCROSSING

ALTERNATIVE 2
ROADWAY

COUNTY	ROUTE	POST MILES TOTAL PROJECT	SCALE	SHEET
SLO	101	52.4	1"=200′	1

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UNIT 1447

PROJECT NUMBER & PHASE 0500020023K

NOTES

1. Widen the existing bridge
2. Roundabout Inscribed Circle Diameter = 175’

ESTIMATED RIGHT OF WAY IMPACT

Location	APN	Area (Acres)
West	040-201-023	1.1
	040-201-045	0.1
	040-201-046	0.1
East	040-211-016	1.2
	040-211-025	0.3

Total Estimated Right of Way Impact = 2.8 Acres

LEGEND

- Removal of Existing
- Proposed Right of Way Impact
- Existing Right of Way
- Proposed Right of Way
- Proposed Retaining Wall

PRELIMINARY PLANS
Subject To Revision

040 - 131 - 042
040 - 153 - 010
040 - 211 - 009
040 - 211 - 016
040 - 211 - 017
040 - 201 - 023
040 - 201 - 045
040 - 201 - 028
040 - 201 - 046
040 - 201 - 024
040 - 201 - 025
040 - 201 - 047
040 - 201 - 038
040 - 201 - 037
040 - 211 - 011
040 - 201 - 033
To Paso Robles
US 101
THEATRE Dr
RAMADA Dr
SB 101 offramp
NB 101 onramp
NB 101 offramp
SB 101 onramp
MAIN St OC
Br No. 49-200
Private Roadway
Driveway
Driveway
Unpaved Access
Unpaved Access
Unpaved Access
MAIN St
CHAMPIONSHIP Ln
To Atascadero
NOT to SCALE

PROJECT MAP: ALTERNATIVE 3

Templeton
San Luis Obispo County
Main Street Overcrossing

State of California
Business, Tranbsportation, and Housing Agency
Department of Transportation
DISTRICT 5

NOTES:

1. DESIGN EXCEPTIONS:
   -ACQUIRE ACCESS CONTROL OPPOSITE TO RAMP TERMINALS (MANDATORY)
   -VERTICAL CLEARANCE 16.1′ < 16.5′ (MANDATORY), IF BRIDGE SOFFIT IS TO REMAIN THE SAME.
   -Intersection spacing at 333′ < 400′ (MANDATORY)
2. ROUNDABOUTS ICD = 175′
3. BRIDGE DOES NOT REQUIRE LENGTHENING NOR REPLACEMENT.

Templeton

LEGEND:

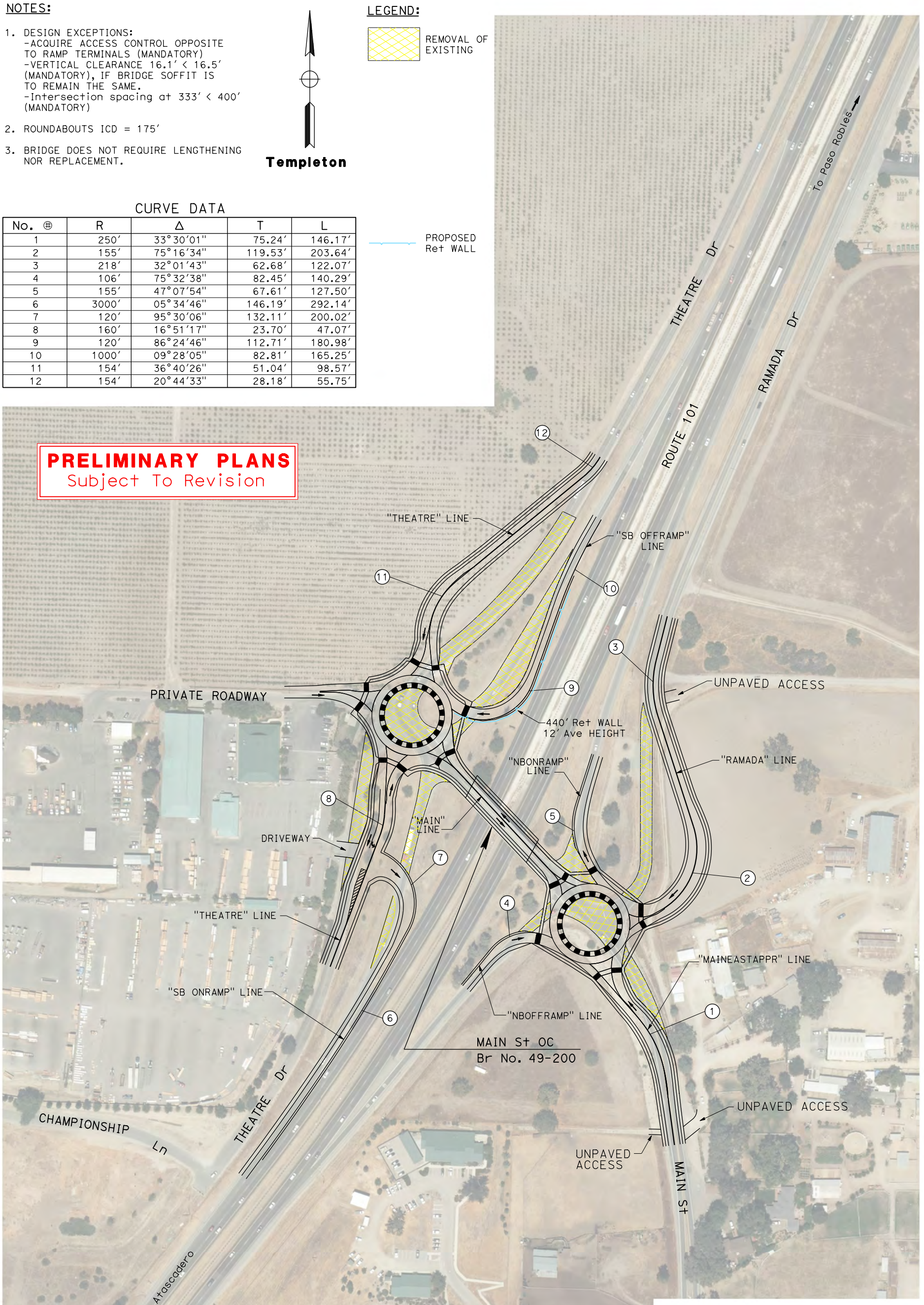
REMOVAL OF EXISTING

PROPOSED Ret WALL

CURVE DATA

No. ⊕	R	Δ	T	L
1	250′	33°30′01"	75.24′	146.17′
2	155′	75°16′34"	119.53′	203.64′
3	218′	32°01′43"	62.68′	122.07′
4	106′	75°32′38"	82.45′	140.29′
5	155′	47°07′54"	67.61′	127.50′
6	3000′	05°34′46"	146.19′	292.14′
7	120′	95°30′06"	132.11′	200.02′
8	160′	16°51′17"	23.70′	47.07′
9	120′	86°24′46"	112.71′	180.98′
10	1000′	09°28′05"	82.81′	165.25′
11	154′	36°40′26"	51.04′	98.57′
12	154′	20°44′33"	28.18′	55.75′

PRELIMINARY PLANS
Subject To Revision



STATE OF CALIFORNIA
BUSINESS, TRANSPORTATION AND HOUSING AGENCY
DEPARTMENT OF TRANSPORTATION
DISTRICT 5

PROJECT MAP
IN SAN LUIS OBISPO COUNTY
IN TEMPLETON
AT MAIN STREET OVERCROSSING

ALTERNATIVE 3
ROADWAY

COUNTY	ROUTE	POST MILES TOTAL PROJECT	SCALE	SHEET
SLO	101	52.4	1"=200′	1

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DGN FILE => 05-0M460 Alternative 3 Roadway 2017-10-10.dgn

UNIT 1447

PROJECT NUMBER & PHASE 0500020023K

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SLO	101	52.4		

REGISTERED CIVIL ENGINEER ____ DATE ____

PLANS APPROVAL DATE ____

REGISTERED PROFESSIONAL ENGINEER No. ____ Exp. ____ CIVIL STATE OF CALIFORNIA

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REMOVE

EXTEND MAIN STREET TO CHAMPIONSHIP LANE

SINGLE LANE ROUNDABOUT (175' ICD)

MAIN STREET

040-201-023 DUSI PARCEL

THEATRE DRIVE

RAMADA DRIVE

US101

040-211-009 GV4 PARCEL

WIDEN OR REPLACE BRIDGE 2 LANES

040-211-016 MANDRILLE PARCEL

MAIN STREET OVERCROSSING

SINGLE LANE HYBRID ROUNDABOUT (175' ICD)

ACCESS

040-201-028 CALTRANS MAINTENANCE PARCEL

040-201-046 WEYRICK PARCEL (DIAMOND PACIFIC)

CUL-DE-SAC

040-201-024 WEYRICK PARCEL

NEED TO VERIFY ACCESS HERE

CHAMPIONSHIP LANE

040-201-047

040-201-025 WEYRICK

040-201-038 SHERIFF

040-201-037

040-211-017 MILLER PARCEL

040-211-011

REJECTED

ALTERNATIVE 1: WE2 & EE1

PRELIMINARY PLANS
Subject To Revision

January 26, 2017

REVISED BY	DATE REVISED
JACKSON HO	

CALCULATED-DESIGNED BY

CHECKED BY

FUNCTIONAL SUPERVISOR: DAVID BEARD

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

DESIGN

Caltrans®

LAST REVISION | DATE PLOTTED => 15-FEB-2017 | TIME PLOTTED => 12:08

BORDER LAST REVISED 7/2/2010 | USERNAME => s131692 | DGN FILE => 05-0M460 Alternative 1.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 1447 | PROJECT NUMBER & PHASE 0500020023

REMOVE

EXTEND MAIN STREET TO CHAMPIONSHIP LANE

SINGLE LANE ROUNDABOUT (175' ICD)

MAIN STREET

040-201-023
DUSI PARCEL

040-211-009
GV4 PARCEL

040-211-016
MANDRILLE PARCEL

040-211-017
MILLER PARCEL

040-211-011

040-201-028
CALTRANS MAINTENANCE PARCEL

040-201-046
WEYRICK PARCEL (DIAMOND PACIFIC)

040-201-024
WEYRICK PARCEL

040-201-025
WEYRICK

040-201-047

040-201-038
SHERIFF

040-201-037

ACCESS

ACCESS

ACCESS

ACCESS

ACCESS

CUL-DE-SAC

NEED TO VERIFY ACCESS HERE

CHAMPIONSHIP LANE

THEATRE DRIVE

THEATRE DRIVE

US101

US101

MAIN STREET OVERCROSSING

RAMADA DRIVE

MAIN STREET

REPLACE BRIDGE
WIDEN TO 4 LANES
LENGTHEN SPAN

SHIFT NB OFFRAMP EXIT SOUTHWARD

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SLO	101	52.4		

REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

PLANS APPROVAL DATE

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REJECTED

ALTERNATIVE 2: WE2 & EE5

PRELIMINARY PLANS
Subject To Revision

JANUARY 26, 2017

LAST REVISION: DATE PLOTTED => 15-FEB-2017
TIME PLOTTED => 12:09

REVISED BY	DATE REVISED
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USERNAME => s131692
DGN FILE => 05-0M460 Alternative 2.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1447

PROJECT NUMBER & PHASE 0500020023

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SLO	101	52.4		

REGISTERED CIVIL ENGINEER _____ DATE _____

PLANS APPROVAL DATE _____

REGISTERED PROFESSIONAL ENGINEER No. _____ Exp. _____ CIVIL STATE OF CALIFORNIA

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REMOVE

SINGLE LANE ROUNDABOUT (120' ICD)

THEATRE DRIVE

RAMADA DRIVE

US101

MAIN STREET OVERCROSSING

WIDEN OR REPLACE BRIDGE 3 LANES

ACCESS

ACCESS

ACCESS

ACCESS

ACCESS

ACCESS

CHAMPIONSHIP LANE

THEATRE DRIVE

US101

MAIN STREET

REJECTED

ALTERNATIVE 3: WE4 & EE2

PRELIMINARY PLANS
Subject To Revision

JANUARY 26, 2017

LAST REVISION | DATE PLOTTED => 16-FEB-2017
TIME PLOTTED => 09:44

REVISED BY	DATE REVISED
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Caltrans

BORDER LAST REVISED 7/2/2010

USERNAME => s131692
DGN FILE => 05-0M460 Alternative 3.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1447

PROJECT NUMBER & PHASE 0500020023

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SLO	101	52.4		

REGISTERED CIVIL ENGINEER _____ DATE _____

PLANS APPROVAL DATE _____

REGISTERED PROFESSIONAL ENGINEER No. _____ Exp. _____ CIVIL STATE OF CALIFORNIA

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REMOVE

SINGLE LANE ROUNDABOUT (120' ICD)

THEATRE DRIVE

RAMADA DRIVE

US101

WIDEN OR REPLACE BRIDGE 3 LANES

MAIN STREET OVERCROSSING

MAIN STREET

ACCESS

ACCESS

ACCESS

ACCESS

ACCESS

ACCESS

CHAMPIONSHIP LANE

THEATRE DRIVE

MAIN STREET

REJECTED

ALTERNATIVE 4: WE4 & EE3

PRELIMINARY PLANS
Subject To Revision

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USERNAME => s131692
DGN FILE => 05-0M460 Alternative 4.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1447

PROJECT NUMBER & PHASE 0500020023

ATTACHMENT E

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SLO	101	52.2/52.9		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. Exp. CIVIL — STATE OF CALIFORNIA

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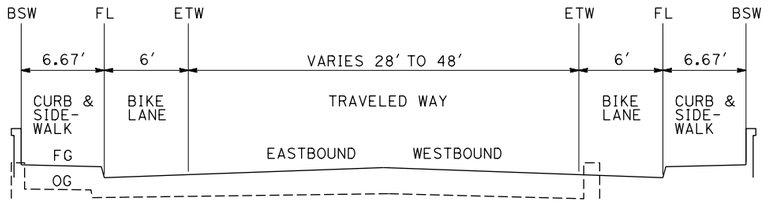
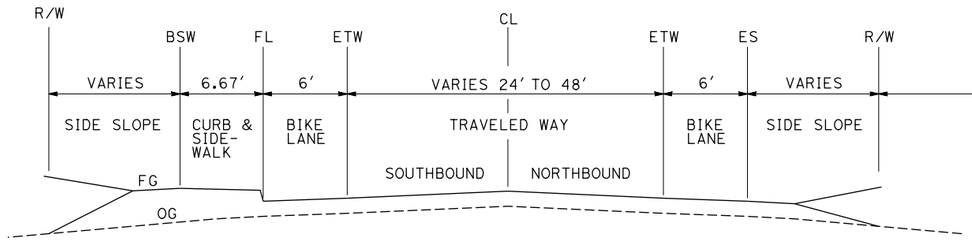
LEGEND

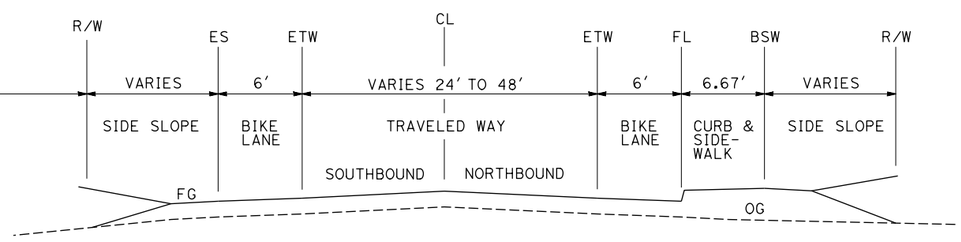
BSW - BACK OF SIDEWALK
CL - CENTERLINE
ES - EDGE OF SHOULDER
ETW - EDGE OF TRAVELED WAY
FG - FINISHED GRADE
FL - FLOWLINE
OG - ORGINAL GROUND
R/W - RIGHT OF WAY
SHLDR - SHOULDER



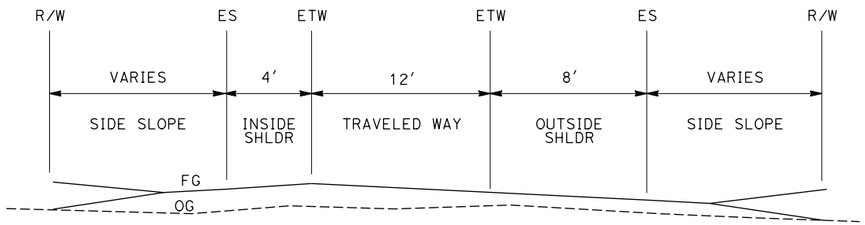
MAIN STREET OVERCROSSING



THEATRE DRIVE



RAMADA DRIVE



RAMPS

TYPICAL CROSS SECTIONS

PRELIMINARY PLANS
Subject To Revision

LAST REVISION | DATE PLOTTED => 26-JUN-2018
TIME PLOTTED => 14:58

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ATTACHMENT F

Transportation Planning Scoping Information Sheet

ROUTE SEGMENT AND PROJECT INFORMATION		
Co/Route/P.M.	**Project ID**	**Project Description**
SLO/101/52.4	0M460K	Interchange Reconfiguration

ROUTE DESIGNATIONS			
Freeway & Expressway	Yes	**Scenic Highway**	Eligible
National Highway System	Yes	**Truck Designation**	National Network STAA
Strategic Highway Network	Non-Interstate STRAHNET	**Interregional Road System**	Yes
Federal Functional Classification	Freeway or Expressway	**Other**	Purple Heart Trail

AADT		V/C				Speeds			
Base Year 2010	Horizon Year 2035	Base Year 2010		Horizon Year 2035		Base Year 2010		Horizon Year 2035	
32,000-63,000	47,000-100,000	NB	0.96	NB	1.26	NB	57-65	NB	57-64
		SB	0.73	SB	1.16	SB	63-68	SB	56-65

Is this a Major Truck Route? ☒ Yes ☐ No

Truck Volumes: 3,100-5,300 (BY) 3,600-8,100 (HY) AADT

Please describe how the project will impact modal and intermodal facilities: US 101 serves as a primary goods movement route. The ultimate design will need to facilitate the needs of large vehicles entering and exiting the highway.

Please identify if the project is consistent with the following documents:

☒ Transportation Concept Report (TCR)

☒ District System Management Plan (DSMP)

☒ Corridor System Management Plan (CSMP)

☒ Interregional Transportation Strategic Plan (ITSP)

☒ California Freight Mobility Plan (CFMP)

LAND USE

Describe the land uses along the segment. Identify major sites, destinations and trip generators within or proximate to the corridor. According to the 2013 Templeton Community Plan Land Use surrounding the interchange is largely rural and designated Residential Rural, Commercial Service, Public Facility, and Commercial Retail. A Caltrans maintenance facility located directly west of US 101 and a commercial/agricultural facility located east of the interchange.

Is the project located on a corridor that accommodates or bisect recreational trails (e.g. hiking and equestrian)?

☐ Yes (Describe any proposed improvements)

☒ No

Please provide the below LD-IGR information (if available) for any proposed local projects that may impact, directly or indirectly, the project. Please list LD-IGR projects that may directly or indirectly impact that proposed Caltrans project or that the proposed Caltrans project may impact.

None.

Transportation Planning Scoping Information Sheet

SMART MOBILITY FRAMEWORK PLACE TYPES			
Identify the SMF Place Type(s):			
☐ Urban Center	☐ Close-In Center	☐ Suburban Center	☒ Rural Settlement/Ag Land
☐ Urban Core	☐ Close-In Corridor	☐ Suburban Corridor	☐ Rural Towns
	☐ Close-In Neighborhood	☐ Suburban Dedicated Use Area	☐ Protected Lands
	☐ Compact Community	☐ Neighborhood	☐ Special Use Areas

Existing Pedestrian, Bicycling, and Transit Conditions Section

PEDESTRIAN CONDITIONS	Needs/Opportunities with Project
Describe existing pedestrian operations or accommodations along the road and crossing the road (e.g., sidewalks or lack of, crosswalks, curb ramps, shoulder conditions, etc.). Pedestrians are prohibited on US 101 but the existing bridge crossing the Freeway supports pedestrian travel with a raised sidewalk located on the south side of the structure (see photo attached with pedestrian).	The Draft PSR indicates that on each alternative sidewalk would be included on each side of the structure and that this would be done in coordination with the County. Caltrans Planning supports this strategy as items such as sidewalk width and configuration alternatives will be important to discuss and coordinate with the County through the project development process.
Does the highway segment function as a "Main Street"? This interchange serves as the northern most node or gateway to "Main Street" which does serve as the main street for the community of Templeton and leads to the downtown.	
Is there a Pedestrian Plan or a comprehensive planning study for the corridor? San Luis Obispo County is currently in the process of updating the Templeton Circulation Plan. The 2013 Draft Templeton Community Plan does not include recommendations related to the US 101/Main Street Interchange.	
Contact information for pedestrian or disabled advisory advocates. N/A	
If in the coastal zone, what is the relationship of the project site to the California Coastal Trail? N/A	

Transportation Planning Scoping Information Sheet

BICYCLING CONDITIONS	Needs/Opportunities with Project
Describe existing bicycle operations. Bicycles are prohibited on US 101 around the interchange. Main Street leading to the interchange is designated a Class II Facility (indicated by a solid orange line on attached map). Across the interchange the route is designated Class III and connects into a Class III facility on the west side of the interchange at Theatre Drive (indicated by a solid red line). The 2016 San Luis Obispo County Bikeways Plan identifies planned Class II facility on Ramada Drive and Theatre Drive parallel routes around the interchange and also identify a portion of the route within the interchange as planned Class II (see dashed orange line on attached map).	The Draft PSR indicates that on each alternative bike lanes would be included on each side of the structure and that this would be done in coordination with the County. Caltrans Planning supports this proposal as it appears consistent with the San Luis Obispo County Bikeways Plan. Continued coordination with the County and potentially the bicycle community will be important for this project as bike lane features (lane width, buffer or no buffer, etc.) are considered.
Are there physical or perceived impediments for bicyclists? (e.g., such as narrow shoulders, curbs, gutters, drainage inlets) The existing facility has little to no shoulder.	
Is there a Bicycle Master Plan or a comprehensive planning study within the corridor? 2016 San Luis Obispo County Bikeways Plan	
Contact information for local bicycle advisory committee or advocacy group. Bike SLO County – Robert Davis (Chair) slobike@yahoo.com	

TRANSIT CONDITIONS	Needs/Opportunities with Project
Are there existing transit accommodations? (e.g., such as bus stops or active transit line) Circulatory path for RTA Route 9 through Templeton through Theatre Drive and Main Streets intersection to South bound ramp.	Based on existing planning studies, there are no evident transit or park & ride lot improvements proposed with potential implications for this project. Continued coordination with the County and SLOCOG is encouraged to verify no other outstanding transit/park and ride lot needs should be considered as part of this project.
Where is the nearest Park & Ride Lot? Who owns/maintains? The nearest park-and-ride lot is to the south of the interchange at Las Tablas. This is owned and operated by Caltrans.	
Describe transit facility needs identified in short-and long-range transit plans and RTP. Describe how these future plans relate to the corridor. The 2016 SLORTA Short Range Transit Plan identifies potential future alterations to the RTA 9 route and a desire for an additional Morro Bay to Templeton Route in the future. No specific recommendations surrounding the interchange are identified. The SLOCOG US 101 Corridor Mobility Master Plan recommends increasing peak hour bus service frequency on Route 9. The SLOCOG 2013 Park & Ride Lot Study does not indicate any plans for a future park & ride lot at this location.	

Transportation Planning Scoping Information Sheet

Contact information for local transit provider. N/A	

LOCAL NETWORK	Needs/Opportunities with Project
MPO/RTPA and Contact Name: San Luis Obispo Council of Governments	This project is identified as a fundable project number NTH-HWYS-024 in the 2014 SLOCOG RTP-SCS. The SLOCOG 2014 US 101 Corridor Mobility Master Plan analyzed four focus segments of US 101 in San Luis Obispo County. The project is not located in one of those segments but located just north of segment 3 which extends between the Santa Barbara Road interchange and Vineyard Drive Interchange.
Local County/City and Contact Name: County of San Luis Obispo Unincorporated Templeton	
Title and weblink to most current Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS) SLOCOG 2014 RTP/SCS http://www.slocog.org/programs/regional-planning/2014-rtpscs	
Are there existing pedestrian accommodations on intersecting local roadways? (see pedestrian section comments)	
Are there existing bicycle facilities on intersecting local roadways? (see bicycle section comments)	
Are there existing transit accommodations on intersecting local roadways? (see transit section comments)	

CLIMATE CHANGE	Needs/Opportunities with Project
Is the corridor segment susceptible to climate change factors such as increased flooding or sea level rise? The project area is not within the 100 or 500 year flood zone.	N/A
Describe presence of nearby sensitive habitat areas such as wetlands, native or sensitive species habitats, wildlife corridors, fish passages. Check with Caltrans Environmental.	

AIR QUALITY MANAGEMENT		
Name of Air Quality Management District (AQMD) San Luis Obispo Air Pollution Control District *Please answer the following questions if the project is located in a Federal non-attainment or attainment-maintenance area.*		
Regionally significant? (Per 40 Code of Federal Regulations (CFR) 93.101)	☒ Yes	☐ No
Exempt from conformity (Per 40 CFR 93.126 and 93.128)	☐ Yes	☒ No
Exempt from regional analysis (Per 40 CFR 93.127)	☐ Yes	☒ No
Not exempt from conformity (must meet all requirements)	☒ Yes	☐ No

TRIBAL GOVERNMENT COORDINATION	
Is the proposed project within or near an Indian Reservation or Rancheria?	☐ Yes (Please provide name/names) ☒ No

SEGMENT MAP

Transportation Planning Scoping Information Sheet

Project Development Team (PDT) Information		
Title	Name	Phone Number
Project Manager	Paul Valadao	805-549-3016
Project Engineer	Jackson Ho	805-549-3137
Transportation Planning PDT Representative	Melissa Streder	805-549-3800

Transportation Planning Stakeholder Information		
Title	Name	Phone Number
Regional Planner	Cindy Utter	805-549-3648
System Planner	Cindy Utter	805-549-3648
Local Development Intergovernmental Review (LD-IGR) Planner	Melissa Streder	805-549-3800
Community Planner	Cindy Utter	805-549-3648
Goods Movement Planner	Kelly McClendon	805-549-3510
Transit Planner	Jennifer Calate	805-549-3099
Bicycle and Pedestrian Coordinator	Melissa Streder	805-549-3800
Park and Ride Coordinator	Melissa Streder	805-549-3800
Native American Liaison	Hana Mengsteab (acting)	805-549-3103
Other Coordinators		

Reviewed by:

Melissa Streder 2/23/2017

District Planning representative (Date)

Jimmy Ochoa 2/23/2017

District SHOPP Program/Advisor representative (Date)

Attachment A

- **BikeScore, WalkScore, TransitScore[1]:** These scores assess the conditions for multi-modal access based on location. Reviewing the methodology[2] for these Scores, a number of the quantitative metrics below are utilized to assess a location's rating.
- **Mode Share[3][4]:** The project could utilize the Census, which tracks commute mode share, or National Household Travel Survey, which tracks all trips, to assess the level of multi-modal trips in the City in which the project is located.
- **Volume Count:**
    - **Bicyclists and Pedestrians:** This could utilize best practices to perform a bicycle and pedestrian count at a selected location along the project corridor.[5]
        - Alternatively, Caltrans can request that bicycles and pedestrians are counted in addition to automobile AADT.
    - **Transit Riders:** The Project can obtain count data from the local transit provider. Data can include bus stop and/or transit route daily/monthly/yearly trips.
- **Bicycle Infrastructure Miles:** The Project can estimate the number of bicycle infrastructure miles implemented within the City or project area.
- **Bikeway Classes (I, II, III, IV):** Identify the bikeway classes that are implemented within the City or project area.
- **Bicycle Connectivity/Gap Closure:** This could analyze the number of bicycle routes that will be connected by implementing a bicycle route through the project, thereby closing gaps in the bicycle network.
- **Intersection Density:** This can be calculated by dividing the number of miles of the project corridor by the number of intersections.
- **List Key Destinations:** Key destinations can include hospitals, parks, schools, libraries, shops, and residential areas.
- **Number of Key Destinations within a walkable distance:** This can sum up the identified Key Destinations listed above that are within ¼ mile, a 5 minute walkshed, or ½ mile.
- **Crosswalks Per Mile:** This metric can be calculated by dividing the number of crosswalks by the number of project miles.
- **Crossing Distance:** This can be calculated by measuring pedestrian crossing distances at crosswalks. The inclusion of this metric should be considered if curb bulbouts are proposed.
- **Number of Transit Routes/Bus Stops Serving the Project Area**: Review the local transit provider's website or Google Maps to assess bus stop locations and/or transit routes utilizing the corridor.
- **Transit type:** Transit types could include bus, bus rapid transit (BRT), light rail transit (LRT), etc.
- **Transit Vehicles/Hour:** This can be calculated by summing up the transit vehicle trips per hour of all of the transit routes serving the area.

[1] www.walkscore.com
[2] https://www.walkscore.com/methodology.shtml
[3] https://www.census.gov/
[4] http://nhts.ornl.gov/
[5] http://www.bikepeddocumentation.org/

ATTACHMENT G

DISTRICT 5
TRANSPORTATION MANAGEMENT PLAN DATA SHEET/CHECKLIST

District / EA / EFIS: 05/0M460K
Project Engineer: Jackson Ho
Date Prepared: 2/16/2017

Co.-Rte-PM: SLO-101-52.4
Description: Main Street Overcrossing
Working Days: 145 days

Check each box and reference your attachments to the item(s) number(s) shown on the list.

	Required	Recommended	Not required	COMMENTS
1.0 Public Information				
1.1 Public Awareness Campaign	x			Include $10,000
1.2 Other strategies				
2.0 Motorist Information Strategies				
2.1 Changeable Message Signs - Portable	x			Estimate $200/day per unit
2.2 Construction Area Signs	x			
2.3 ~~Highway Advisory Radio (fixed and mobile)~~				
2.4 Planned Lane Closure Web Site	x			Construction to provide information to TMC
2.5 Caltrans Highway Information Network (CHIN)	x			Construction to provide information to TMC
3.0 Incident Management				
3.1 COZEEP (during k-rail moving & work in live traffic)	x			For fully closures and k-rail placement
				Estimate $250/hour for nightwork.
3.2 Freeway Service Patrol			x	
4.0 Traffic Management Strategies				
4.1 Lane/Ramp Closures Charts	x			To be provided during PS&E. Nightwork only.
4.2 Total Facility Closure/ Number of days?	x			2 nights
4.3 Coordination with adjacent construction				
4.4 Contingency Plan	x			Standard SSP
4.4.1 Material/Equipment Standby			x	Contruction/Contractor to provide
4.4.2 Emergency Detour Plan			x	Contruction/Contractor to provide
4.4.3 Emergency Notification Plan			x	Contruction/Contractor to provide
4.5 Speed Limit Reduction Request			x	
4.6 Special Days:	x			Mid-State Fair
4.7 Other items:				
Liquidated Damages Penalty	x			To be determined.
4.8 Bicycle and Pedestrian Accommodations*	x			

**Planning for all road users must be included in this process. Bicyclists and Pedestrians shall not be led into direct conflicts with mainline traffic, work site vehicles, or equipment moving through or around the TTC zone. Contact Dario Senor w/ questions.*

5.0 Anticipated Delays				
5.1 Lane Closure Review Committee (for anticipated delays over 30 minutes)			x	
5.2 Planned freeway closures			x	

5.3 Minimal delay anticipated - no further action required

[x] yes [ ] no If no, explain additional measures on attached sheet.

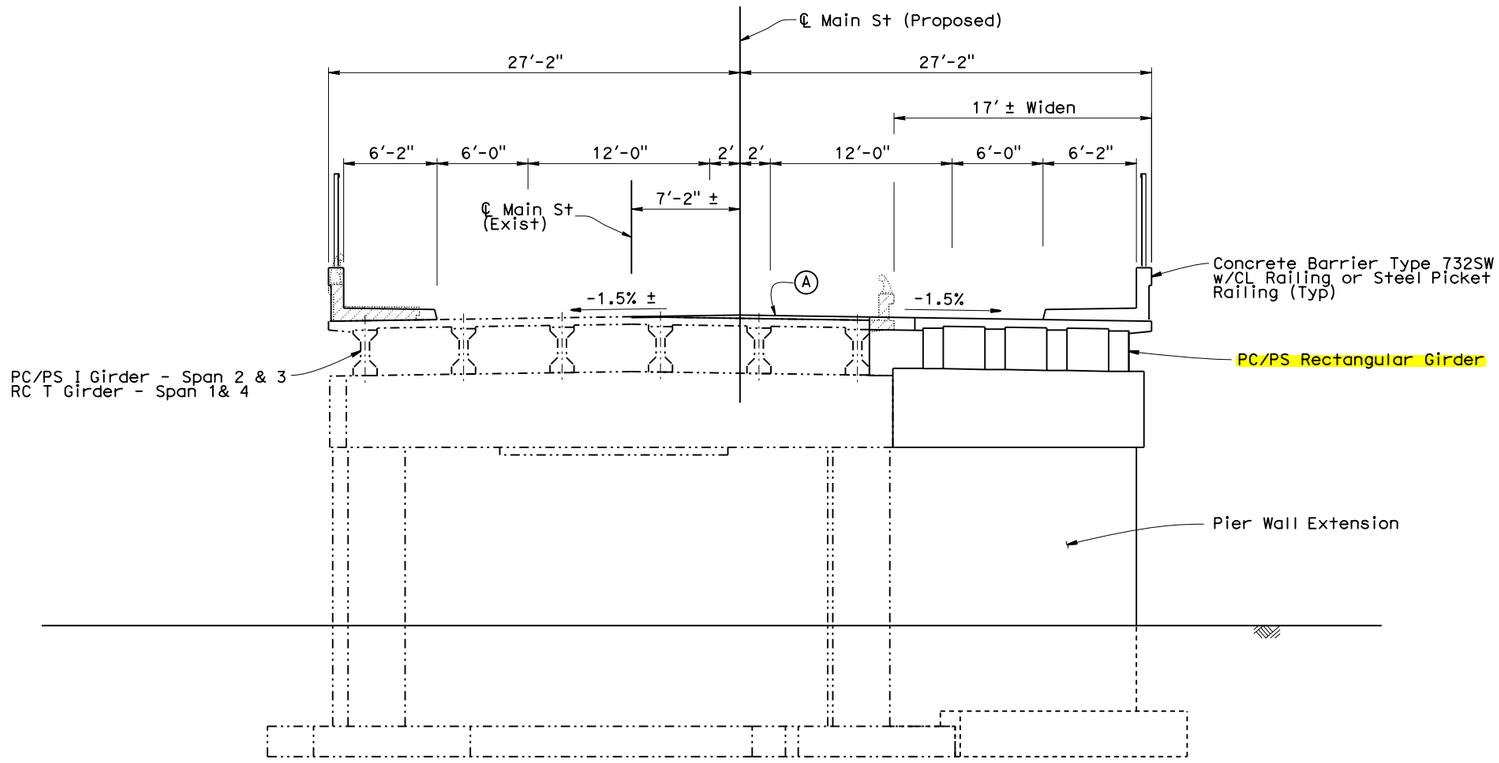
6.0 Demand Management & Alternate Route Strategies			x	
6.1				
6.2				

Shayne Sandeman
District 5 TMP Coordinator

ATTACHMENT H

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - DIVISION OF STRUCTURES

DIST	COUNTY	ROUTE	POST MILE
05	SLO	101	52.4



TYPICAL SECTION

1" = 5'

Notes:

1. Stage construction will be required.
2. Intermittent lane closures will be required on Route 101 and Main Street
3. Directional closures of Route 101 will be necessary for precast girder erection operations. Night work is expected.
4. Driven pile foundations assumed at each abutment.
5. Spread footing foundations assumed at each bent.

(A) Bridge Deck Overlay

ALTERNATIVE A

INCOMPLETE PLAN FOR DESIGN STUDY PRINTED
DATE: 29-JUL-2016
Office of Structure Design
STATE OF CALIFORNIA

Legend:

———— Indicates New Construction

-·-·-·- Indicates Existing Structure

▨ Indicates Bridge Removal

CONCEPTUAL ONLY

DESIGNED BY MD	DATE 7/2016	STRUCTURE DESIGN BRANCH —	PLANNING STUDY
DRAWN BY MD	DATE 7/2016		MAIN STREET OVERCROSSING
CHECKED BY X	DATE X		UNIT: 3585 / BRIDGE No. 49-0200
APPROVED X	DATE X		SCALE: As Noted / PROJECT No. & PHASE: 0500020023

FILE => 05-0M460_Concepts_07202016.dgn

CONTRACT No.: 05-0M460K

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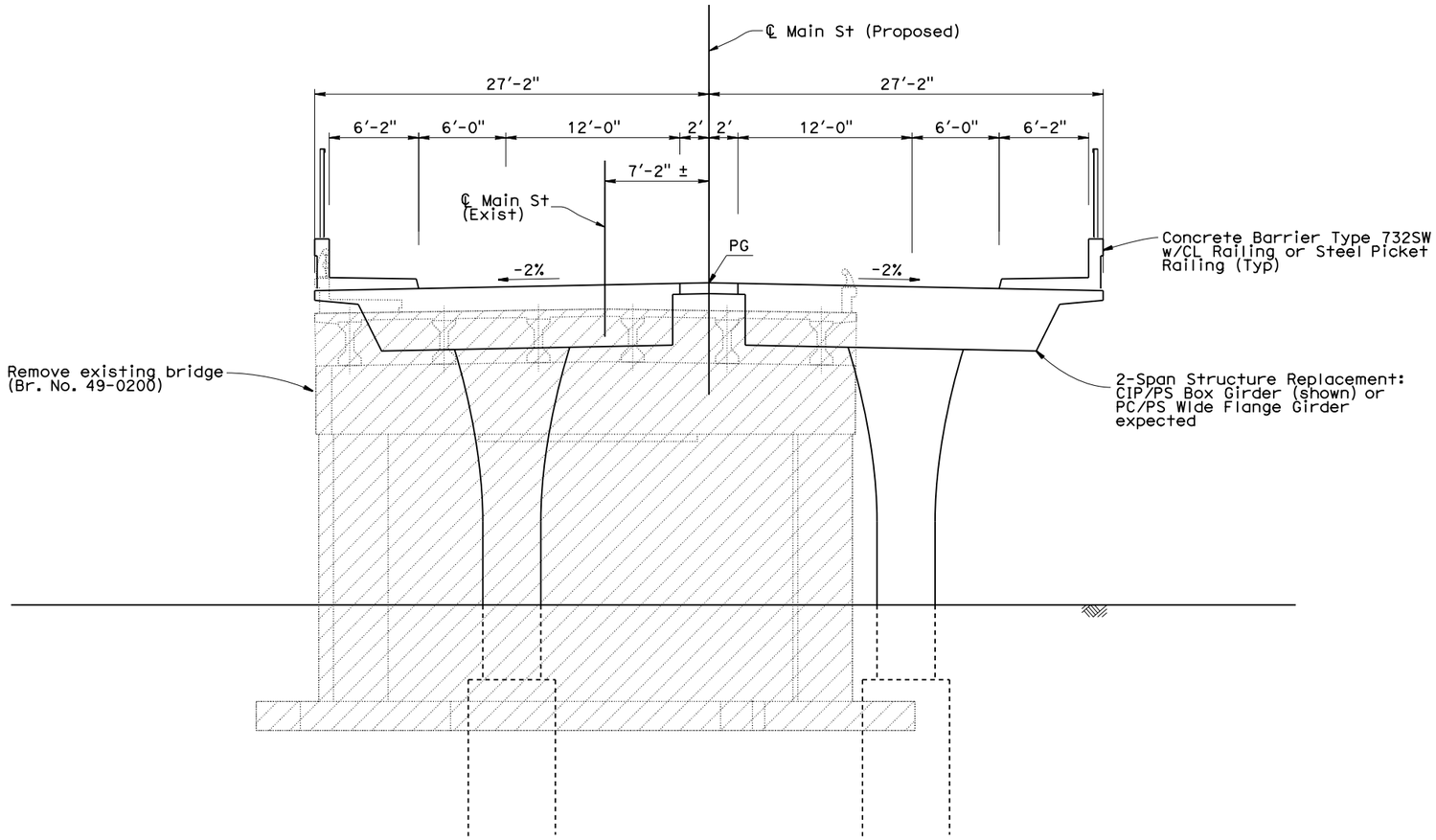
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - DIVISION OF STRUCTURES

DIST	COUNTY	ROUTE	POST MILE
05	SLO	101	52.4



TYPICAL SECTION

1" = 5'

ALTERNATIVE B

Notes:

1. Bridge replacement construction is assumed to be completed by either,
   (A) Single stage with Main Street vehicular and pedestrian traffic detoured from site or
   (B) Two stages (Typical Section shown) with one-way traffic control on Main Street
2. Shoring of the existing bridge will be required during staged removal.
3. Intermittent lane closures will be required on Route 101 and Main Street.
4. Directional closures of Route 101 will be necessary for bridge removal and falsework erection/removal or precast girder erection operations. Night work is expected.
5. Driven pile foundations assumed at each abutment.
6. Large diameter CIDH piles (shown) or driven piles foundations assumed at Bent 2.

INCOMPLETE PLAN FOR DESIGN STUDY PRINTED
DATE: 05-AUG-2016
Office of Structure Design
STATE OF CALIFORNIA

Legend:

———— Indicates New Construction

–·–·–·– Indicates Existing Structure

▨ Indicates Bridge Removal

CONCEPTUAL ONLY

DESIGNED BY MD	DATE 7/2016	STRUCTURE DESIGN BRANCH —	PLANNING STUDY
DRAWN BY MD	DATE 7/2016		MAIN STREET OVERCROSSING
CHECKED BY X	DATE X		UNIT: 3585 / BRIDGE No. 49-0200
APPROVED X	DATE X		SCALE: As Noted / PROJECT No. & PHASE: 0500020023

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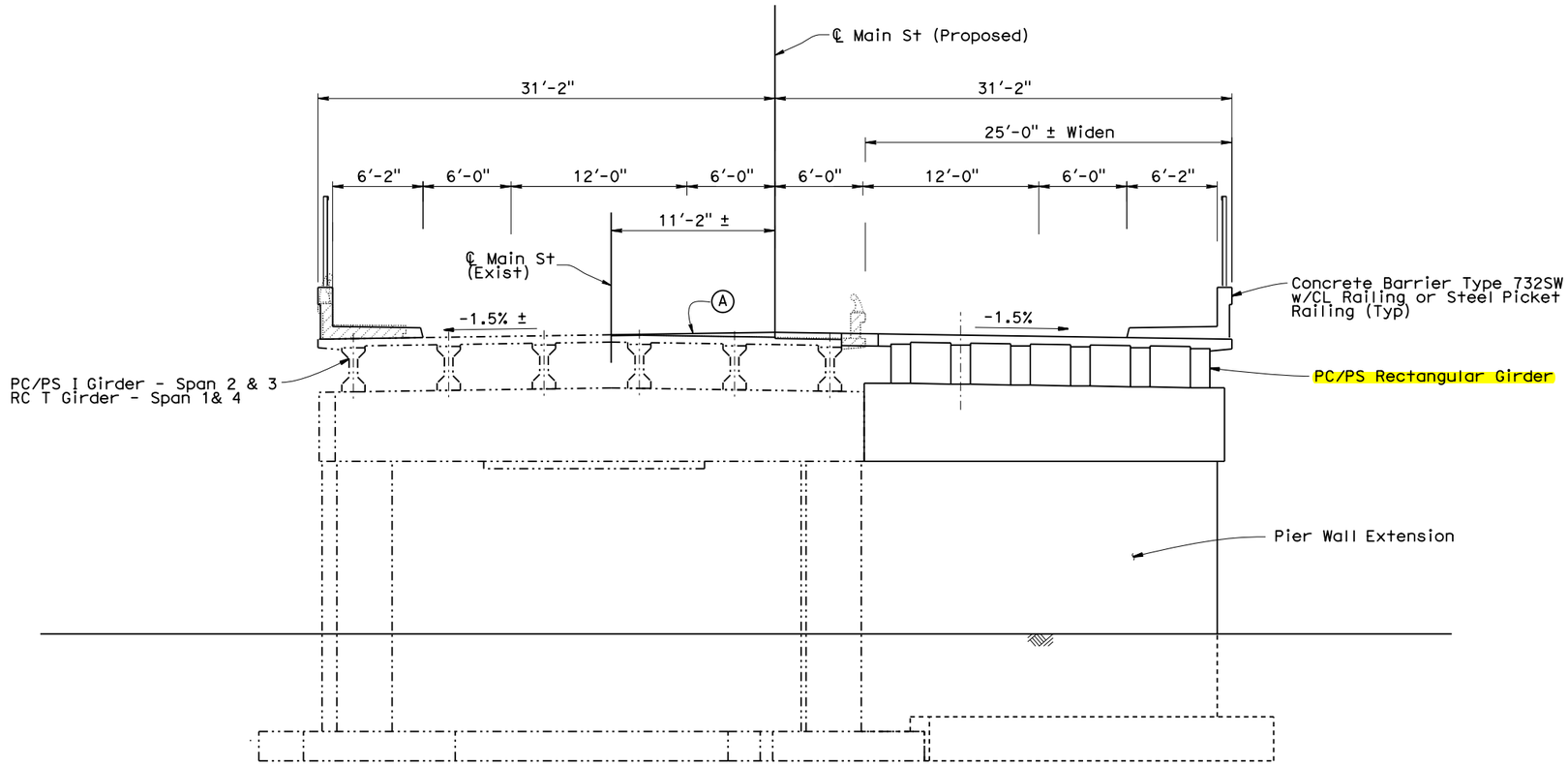
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - DIVISION OF STRUCTURES

DIST	COUNTY	ROUTE	POST MILE
05	SLO	101	52.4



TYPICAL SECTION

1" = 5'

Notes:

1. Stage construction will be required.
2. Intermittent lane closures will be required on Route 101 and Main Street
3. Directional closures of Route 101 will be necessary for precast girder erection operations. Night work is expected.
4. Driven pile foundations assumed at each abutment.
5. Spread footing foundations assumed at each bent.

(A) Bridge Deck Overlay

ALTERNATIVE C

INCOMPLETE PLAN FOR DESIGN STUDY PRINTED
DATE: 29-JUL-2016
Office of Structure Design
STATE OF CALIFORNIA

Legend:

———— Indicates New Construction
-·-·-·- Indicates Existing Structure
▨ Indicates Bridge Removal

CONCEPTUAL ONLY

DESIGNED BY MD	DATE 7/2016	STRUCTURE DESIGN BRANCH —	PLANNING STUDY
DRAWN BY MD	DATE 7/2016		MAIN STREET OVERCROSSING
CHECKED BY X	DATE X		UNIT: 3585 / BRIDGE No. 49-0200
APPROVED X	DATE X		SCALE: As Noted / PROJECT No. & PHASE: 0500020023

CONTRACT No.: 05-0M460K

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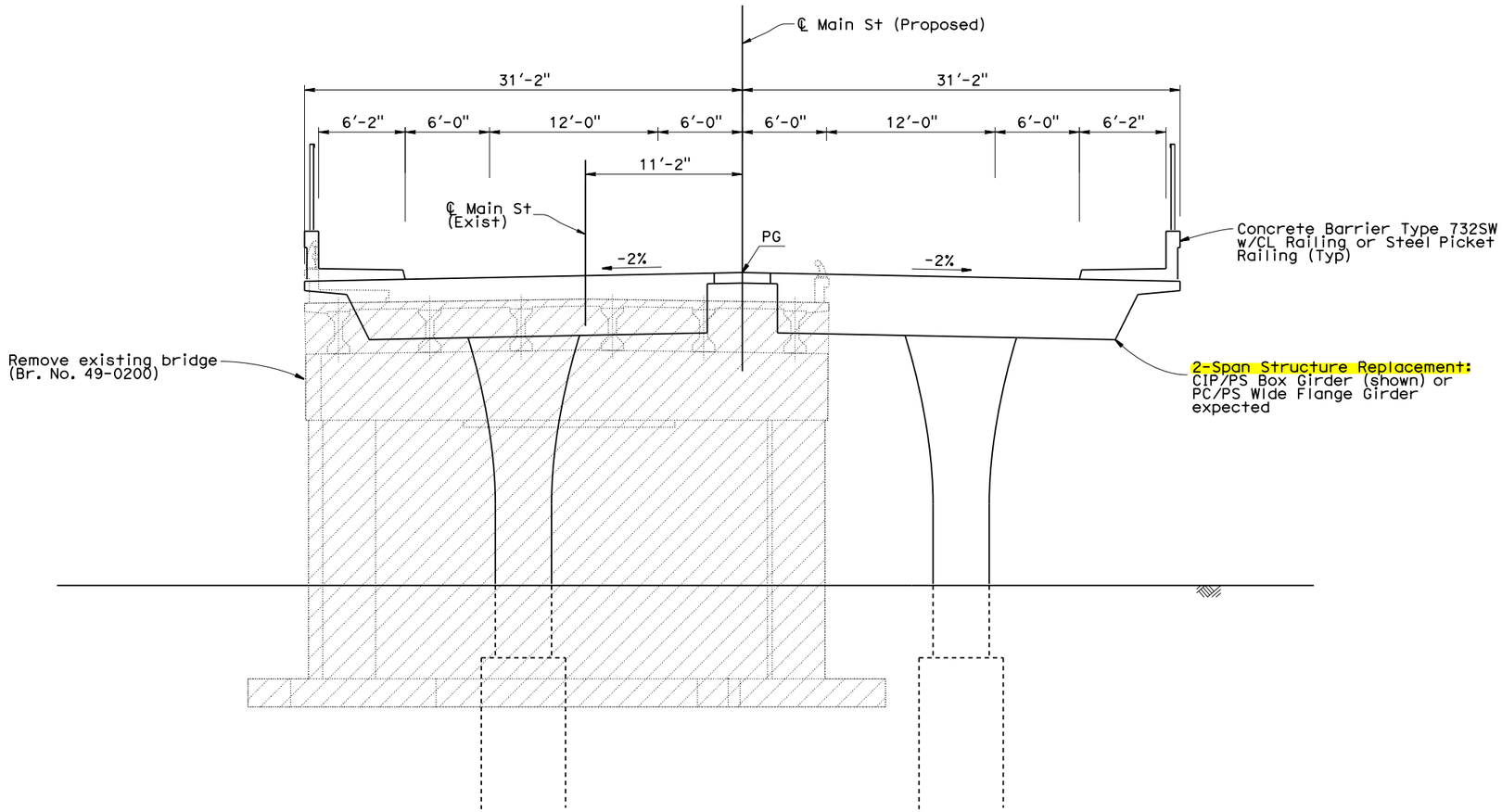
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - DIVISION OF STRUCTURES

DIST	COUNTY	ROUTE	POST MILE
05	SLO	101	52.4



Notes:

1. Stage construction will be necessary.
2. A temporary pedestrian walkway will be mounted on the existing structure during the first stage and on the new structure during the second stage.
3. Shoring of the existing bridge may be required during staged removal.
4. Intermittent lane closures will be required on Route 101 and Main Street.
5. Directional closures of Route 101 will be necessary for bridge removal and falsework erection/removal or precast girder erection operations. Night work is expected.
6. Driven pile foundations assumed at each abutment.
7. Large diameter CIDH piles (shown) or driven piles foundations assumed at Bent 2.

TYPICAL SECTION

1" = 5'

ALTERNATIVE D

INCOMPLETE PLAN FOR DESIGN STUDY PRINTED
DATE: 29-JUL-2016
Office of Structure Design
STATE OF CALIFORNIA

Legend:

——— Indicates New Construction

–·–·–·– Indicates Existing Structure

▨ Indicates Bridge Removal

CONCEPTUAL ONLY

DESIGNED BY MD	DATE 7/2016	STRUCTURE DESIGN BRANCH —	PLANNING STUDY
DRAWN BY MD	DATE 7/2016		MAIN STREET OVERCROSSING
CHECKED BY X	DATE X		UNIT: 3585 / BRIDGE No. 49-0200
APPROVED X	DATE X		SCALE: As Noted / PROJECT No. & PHASE: 0500020023

CONTRACT No.: 05-0M460K

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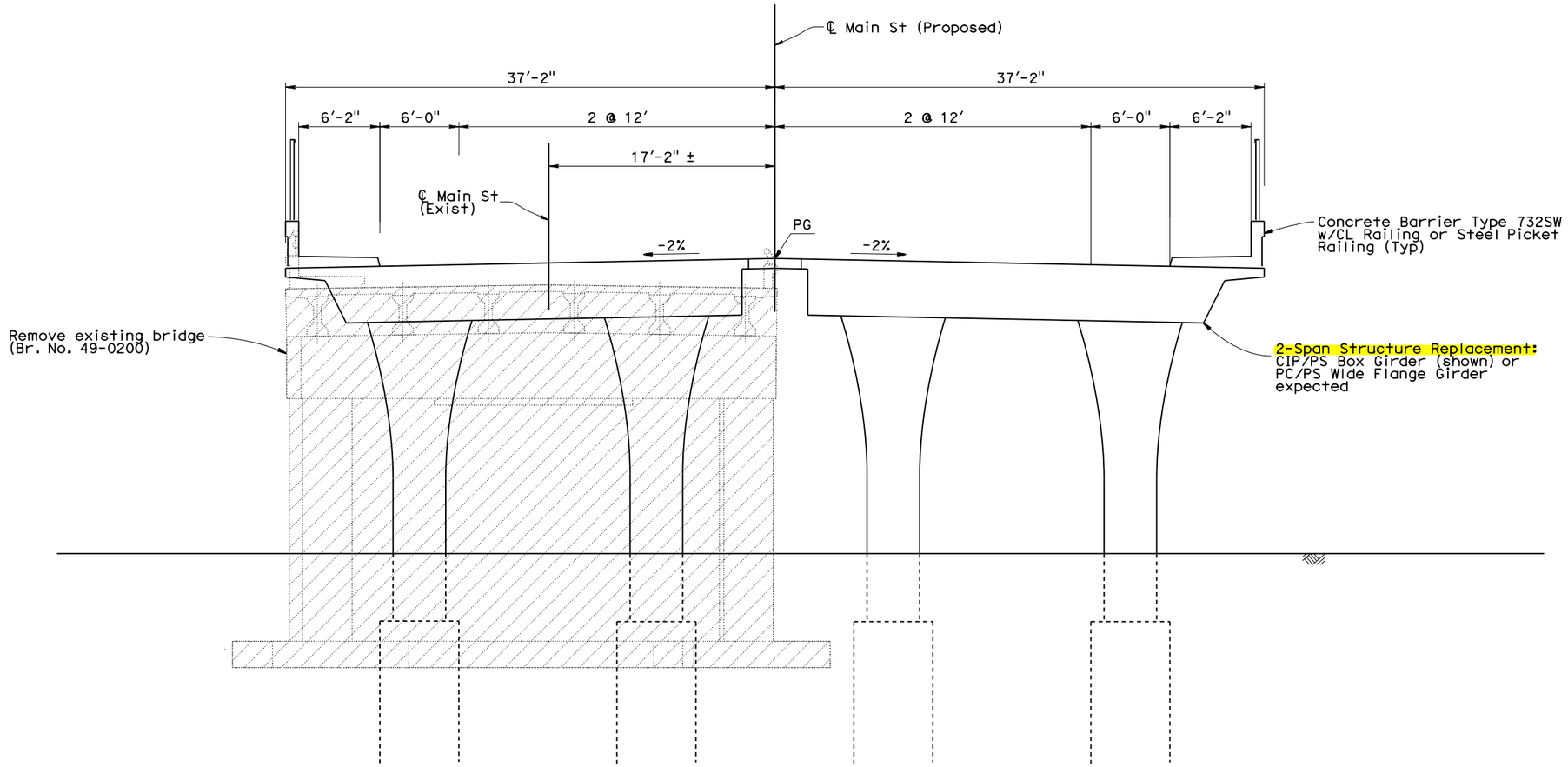
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - DIVISION OF STRUCTURES

DIST	COUNTY	ROUTE	POST MILE
05	SLO	101	52.4



TYPICAL SECTION

1" = 5'

Notes:

1. Stage construction will be required
2. Intermittent lane closures will be required on Route 101 and Main Street.
3. Directional closures of Route 101 will be necessary for bridge removal and falsework erection/removal or precast girder erection operations. Night work is expected.
4. Driven pile foundations assumed at each abutment.
5. Large digmeter CIDH piles (shown) or driven piles foundations assumed at Bent 2.

ALTERNATIVE E & F

INCOMPLETE PLAN FOR DESIGN STUDY PRINTED

DATE: 29-JUL-2016

Office of Structure Design

STATE OF CALIFORNIA

Legend:

———— Indicates New Construction

–·–·–·– Indicates Existing Structure

▨ Indicates Bridge Removal

CONCEPTUAL ONLY

DESIGNED BY MD	DATE 7/2016	STRUCTURE DESIGN BRANCH —	PLANNING STUDY
DRAWN BY MD	DATE 7/2016		MAIN STREET OVERCROSSING
CHECKED BY X	DATE X		UNIT: 3585 / BRIDGE No. 49-0200
APPROVED X	DATE X		SCALE: As Noted / PROJECT No. & PHASE: 0500020023

USERNAME => s121298 DATE PLOTTED => 29-JUL-2016 TIME PLOTTED => 10:17

FILE => 05-0M460_Concepts_07202016.dgn

CONTRACT No.: 05-0M460K

ATTACHMENT I

PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT

1. Project Information

District 05	County San Luis Obispo	Route 101	PM 52.4	EA 05-0M460
Project Title: Route 101 / Main Street Interchange Reconfiguration				
Project Manager Paul Valadao			Phone # 805-549-3175	
Project Engineer Jackson Ho			Phone # 805-549-3137	
Environmental Office Chief/Manager Matt Fowler			Phone # 805-542-4603	
PEAR Preparer Keith Miller			Phone # 805-781-5714	

2. Project Description

Purpose and Need

The existing US 101 / Main Street Interchange is a tight diamond interchange with frontage roads, Ramada Drive to the east and Theatre Drive to the west, intersecting about 40-50 feet from the ramp intersections. The bridge, built in 1966, is 30-feet wide and 194-feet long with vertical clearance of 18-feet on the southbound side and 16-feet on the northbound side. Nearby frontage roads of Ramada Drive (on the east) and Theater Drive (on the west) create the need for left turns from Main Street. Left turns from Main Street to Ramada Drive create queues that ultimately block the ramps. Analysis of the exiting traffic conditions at this interchange indicates that delays for the US 101 north and southbound off-ramps are within the LOS D-E range during the PM peak hour while the remaining 4 intersections are within acceptable limits during the AM and PM peak hours (LOS C or better at the ramp intersections, and LOS D or better at the frontage road intersections).

As northern San Luis Obispo County continues to see growth, the LOS at this intersection will continue to diminish. Traffic volumes at this interchange are also affected by congestion at US 101 /State Route 46 West Interchange (PM 54.11) located just 1.67 miles to the North. Many drivers use the Main Street Interchange to Theater Drive and Ramada Drive to access local residential and commercial uses on the west and east side of US 101.These conditions will likely cause a more rapid deterioration in LOS than would be regularly expected. As the ramps back up toward mainline US 101, high speed rear end accidents and freeway congestion will be more likely.

The purpose of the proposed project is to provide congestion relief and multi-modal connectivity.

Description of work

The proposed project includes improving the US 101/Main Street interchange northbound and southbound ramp intersections to address forecast traffic operational deficiencies and improve

multimodal access. In addition to the proposed roadway improvements, the project will likely require utility relocations and modifying existing drainage facilities within the project area.

Alternatives
During project development, numerous project alternatives were developed and the most promising were introduced to the public in 2017. Based on feedback received as well as further review and coordination among the Project Design Team (PDT), three feasible alternatives are currently proposed. The three alternatives are described below.

Alternative 1 – Hookramps and Bridge Replacement

Alternative 1 involves the most significant realignments, including two new hookramps located north of the existing interchange. All existing on and off-ramps would be removed and replaced with new hookramps that connect to Ramada Drive and Theatre Avenue approximately 1,000 and 1,300 feet north of the existing interchange, respectively. Theatre and Ramada Drive would be realigned in the areas adjacent to the new hookramps. Traffic signals would be necessary at the hookramp intersections. Traffic signals would also be necessary at the overpass intersection. The overpass would need to be widened. An approximately 250-foot-long retaining wall is proposed on the east side of Main Street to minimize right-of-way acquisition and grading impacts on the adjacent parcel.

Alternative 2 – Hookramps and Bridge Replacement

Alternative 2 introduces new hookramps, and locates the new off-ramps underneath the exisitng overpass. The new hookramp at Theatre Drive would be located approximately 600 feet north of the existing interchange. Traffic signals would be necessary at the hookramp intersections. Traffic signals would also be necessary at the overpass intersection. Theatre Drive and Ramada Drive would need be realigned, although Ramada Drive less so compared to Alternative 1. The overpass would need to be completely replaced to accommodate the new hookramp off-ramps. An approximately 500-foot-long retaining wall is proposed on the east side of Main Street to minimize right-of-way acquisition and grading impacts on the adjacent parcel.

Alternative 3 – Roundabouts and Bridge Widening

Alternative 3 includes two five-legged roundabouts as well as realignments of Theatre Drive and Ramada Drive. The alignments of the northbound and southbound onramps would remain similar to the current alignments. The existing bridge would need to be widened to accommodate the project, including proposed bicycle and pedestrian improvements. The Theatre Drive and Ramada Drive realignments would be necessary so that they can be safely accommodated in the roundabout.

3. Anticipated Environmental Approval

Check the anticipated environmental determination or document for the proposed project in the table below.

CEQA		NEPA	
Environmental Determination			
Statutory Exemption	☐		
Categorical Exemption	☐	Categorical Exclusion	☒
Environmental Document			
Initial Study or Focused Initial Study with proposed Negative Declaration		Routine Environmental Assessment with proposed Finding of No	

(ND) or Mitigated ND	☒	Significant Impact Complex Environmental Assessment with proposed Finding of No Significant Impact	☐ ☐
Environmental Impact Report	☐	Environmental Impact Statement	☐
CEQA Lead Agency (if determined):		Caltrans	
Estimated length of time (months) to obtain environmental approval:		24 months	
Estimated person hours to complete identified tasks:		XX	

4. Special Environmental Considerations

The key environmental issue for these alternatives is the loss of prime agricultural soils on the east side and the existing vineyard on the western side of the project. Permanent impacts to the Dusi Vineyard resulting from right-of-way acquisition for Alternatives 1 and 2, for example, are approximately 7.3 and 3.8 acres, respectively. Temporary construction easements would also be necessary in order to construct these alternatives.Alternative 3 would result in a loss of approximately 1.1 acres, plus additional acreage (probably less than 1 additional acre) for construction.

5. Anticipated Environmental Commitments

Permanent impacts resulting from these alternatives include the loss of prime soils and portions of an established vineyard. Mitigation measures, if necessary, could include purchasing a conservation easement, or providing some alternate agricultural preservation or enhancement in the area.

6. Permits and Approvals

Based on a preliminary reconnaissance survey, the blue line stream on the northern end of the project limits is not jurisdictional, and there were no other potential wetland features observed. If impacts to the blue line stream located on the northern edges of project areas can be avoided, or if the areas are no longer considered jurisdictional, then no permits will be required for these alternatives. If the areas are jurisdictional, and impacts are necessary, then it may be necessary to obtain permits from the CDFW, RWQCB, and USACE. It is unlikely that consultation with the USFWS or NMFS will be required for these alternatives in either case. If necessary, the permit process would take approximately 6 six months from approval of the CEQA and NEPA documents.

7. Level of Effort: Risks and Assumptions

Assumptions

The assumptions in this PEAR include:

- The project will avoid or minimally disturb blue-line streams located within the northern and southernmost boundaries of the project limits.
- No prehistoric resources will be discovered during surface surveys.
- No historic structures will be discovered during preparation of the HRER, and approximately 20 structures may need to be evaluated.
- Air quality and greenhouse gas assessments will be focused on construction activities and be mitigable with standard measures.
- All project impacts can be mitigated to a less than significant level and an IS/MND will be the appropriate CEQA document.

Risks

The risks identified include:

- Alternatives 1 and 2 include development in areas well outside of the disturbed right-of-way and may contain unknown subsurface cultural resources, historic resources/structures, and/or hazardous materials.
- Use of portions of the parcel south of Championship Lane for offsite post-construction stormwater mitigation would likely require obtaining permits from the USACE, RWQCB, and the CDFW and possibly result in more substantial biological resources analyses. This applies to each alternative.
- Potential staging areas have not been well-defined for any of the alternatives. If located outside of the existing study areas, staging areas may require studies not considered in this analysis.

8. PEAR Technical Summaries

8.1 Land Use:

Land use categories within the project area include Commercial Service, Public Facilities, Residential Rural, and Commercial Retail. Land uses include a Caltrans facility, a large lumber yard, commercial home furnishing stores, scattered storage and other buildings, agriculture, and possibly a few single-family residences. The northwestern corner of the project area includes an active approximately 100-acre vineyard.

8.2 Growth:

All three alternatives are proposed to accommodate the buildout of the local community as shown in the local General Plan. The project is intended to address potential future deficiencies at the interchange. With each of the proposed alternatives, congestion should be reduced and opportunites for bicycle travel enhanced.

Alternatives 1 and 2 would place new highway on and off-ramps within parcels that have been developed with vineyards or are generally undeveloped (east). The parcel to the east is in the "multiple land use" category and parcels to the north and south have been developed with a mixture of commercial uses. The General Plan anticipates growth on this parcel in the future and the new on and off-ramps may induce growth on the parcel to some extent.

The potential for growth inducement is higher on the west side of Highway 101. The new on and off-ramps would be located in the Dusi Vineyard. This is a well-established vineyard within the Rural Residential land use category. If new highway ramps are located within the Dusi Vineyard parcel, it may make the entire 100 acre parcel more attractive for development. This issue should be further considered in the environmental documents prepared for the project.

8.3 Farmlands/Timberlands:

There are no timberlands in the project area or vicinity. There are no parcels under agricultural contract in the project area or adjacent to the project.

Alternative 1 would result in a minimum of approximately 8 acres of permanent impacts to the Dusi Vineyards, which is considered prime agricultural land. An additional approximately 4 acres of potentially prime soils on the west side of Highway 101 would also be permanently impacted by the project.

Alternative 2 would result in approximately 4 acres of permanent impacts to the Dusi Vineyards. An additional approximately 1 acre of potentially prime soils on the west side of Highway 101 would also be permanently impacted by the project.

Alternative 3 would result in approximately 1.1 acres of permanent impacts to the Dusi Vineyard and approximately 1.2 acres to the unimproved parcel to the east of Highway 101. As the design of Alterative 3 is refined, a more focused assessment of the impacts would be conducted.

Farmland impacts should be further evaluated in regards to the conversion of prime soils, existing vineyards and infrastructure, and the loss/impact to potential agricultural operations on the eastern side of the project area, and impacts to any Williamson Act properties. Mitigation measures, if necessary, could include purchasing a conservation easement, or providing some alternate agricultural preservation or enhancement in the area.

Form AD-1006 will need to be completed in coordination with the NRCS for each viable alternative.

8.4 Community Impacts:
The community of Templeton is an unincorporated community between the Cities of Atascadero and Paso Robles. It is described in the Templeton Community Plan in this way:

"Historically an agricultural service and residential community, Templeton has become an important regional medical center but continues to rely heavily on employment in other nearby communities. It is foreseen to incorporate as a city once that an adequate stream of public revenue occurs to provide a fiscal foundation. Templeton's economy is intertwined with and, in many ways, inseparable from the economy of the larger North County region." Templeton does not have a disproportionate number of low income or minority residents. Issues associated with environmental justice are not relevant.

No alternative would result in affects to the population, neighborhoods or community character.

8.5 Visual/Aesthetics:
The project area is in the northernmost area of the community of Templeton, which is semi-rural with gently rolling hills in all directions. The existing interchange area is bordered on the west by a vineyard and a large lumber yard, and on the east by low-intensity agricultural uses, the Sherriff's station, and by agriculturally-oriented commercial services. Vegetated areas are grasslands with scattered oak trees. Ornamental landscaping has been planted at the lumber yard and sheriff's station, among other locations.

There are few residences in the area. Based on aerial photos, there are approximately four residences each located approximately 0.25 mile from the project area. Public views of the interchange are generally limited to those travelling on US 101, Main Street, and Ramada Drive.

All three alternatives would result in expansion of the paved area at the existing interchanges. All three alternatives would likely result in the removal of some or all of the oak trees scattered throughout the interchanges.

Grading will be required for all three alternatives; however, given the extent of the grading required for Alternatives 1 and 2, topographic cut and fill slopes may be particularly noticeable. Views of the Dusi Vineyard from the north and southbound Highway 101 travel lanes may be substantially impacted.

These issues should be further considered in the IS/MND, and a Visual Impact Analysis will be prepared.

8.6 Cultural Resources:
This project will be conducted under the auspices of the January 2014 *First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (hereafter, the PA).

A review of the County database of cultural resources records indicates that there are no known cultural resources sites within the project area. A review of the California Department of

Transportation Historic Bridge Inventory revealed that the existing Main Street overcrossing bridge was constructed in 1966 and is a Category 5 Bridge, indicating that it has been determined ineligible for listing in the National Register of Historic Places. This determination will need to be verified in the current study.

A records search at the Central Coast Information Center, part of the California Historical Resources Information System, and a field survey (Phase I) of all the proposed Area of Potential Effects (APE) will be required prior to completing the CEQA and NEPA review. Final project maps that depict the total project limits, construction easements, and specific construction activities (e.g. excavations, borrow sources, and equipment storage areas) are required prior to the initiation of the Phase I archaeological study. This includes all proposed right of way acquisition, staging areas, borrow sources, utilities relocation, and temporary easements. Unrecorded sites within the APE will be identified and mapped. Previously unrecorded sites will be documented on the appropriate forms.

Based on field inventories and additional archival research, the appropriate cultural resource document will be prepared. As proposed, documentation will include an Archaeological Survey Report documenting the studies undertaken.

A Historical Resources Evaluation Report (HRER) is required to evaluate existing built environment resources identified in the APE and to make determinations of eligibility for listing in the National Register. An HRER may be particularly necessary due to the potentially historic Dusi Vineyard and the structures located on the southwestern portion of the project area. The status of the Main Street overcrossing as a Category 5 Bridge will also be revalidated in the HRER.

A Historic Property Survey Report (HPSR) is required to summarize all of the technical documents. If any cultural resources are identified in the APE and an eligibility determination is made, the HPSR will be submitted to the State Historic Preservation Officer (SHPO) for review. These documents can be summarized in the CEQA and NEPA environmental documents. Any subsequent changes in project scope may require additional archaeological or historical review.

Native American consultation with members of the Salinan and Chumash representatives will be initiated as project plans are refined through the County's established AB52 process and will be documented in the HPSR.

8.7 Hydrology and Floodplain:

The proposed alternatives are not located within the 100-year flood plain. Based on USGS maps a blue line stream historically flowed from the northwest to the southeast across the northern portion of the project area, Alternatives 1 and 2 have the potential to cross the remnants of that feature, although it appears that impacts would either be avoided or minimal in scope. If a blue-line stream will be affected, a Location Hydraulic Study may be necessary.

8.8 Water Quality and Storm Water Runoff:

A Stormwater Pollution Prevention Plan and coverage under the Construction General Permit is required by the SWRCB for construction projects with greater than one acre of soil disturbance. Temporary construction impacts can be mitigated by using Best Management Practices (BMPs). Impacts to surface and ground water quality are not expected to result from this project.

BMPs, as mitigation, would be required to reduce any potential impacts to water quality during construction of the proposed project. Caltrans has indicated that this project is covered under the new Caltrans NPDES Permit (Order 2012-0011 DWQ).

The Draft Templeton Drainage and Flood Control Study has identified the creek and floodplain in the southeastern portion of the project site as a potential detention basin to ease flooding downstream along Toad Creek. If the project requires offsite improvements to mitigate post-construction stormwater requirements of the RWQCB, that area may be the location of this mitigation.

8.9 Geology, Soils, Seismic and Topography:
Based on the County geology database, the area is in an area of low landslide potential, and there are no serpentine soils in the vicinity. A geotechnical investigation will be required at the site to determine engineering properties of local soil and rock, including depth of soil profile, hydraulic conductivity, and relative density. Due to the lack of topographic changes and cut and fill required, no significant geologic impacts are anticipated for any of the alternatives. The environmental document for the project should summarize the results of the geotechnical studies.

8.10 Paleontology:
Paleontological reports have been prepared for projects near the interchange, and they note that both the Monterey formation and the Paso Robles formation are potentially sensitive for paleontological resources. The project site is located on older alluvial deposits, but the sensitive geologic formations may be encountered at or near the surface.

The project is located primarily in areas that have been previously disturbed by construction of the interchange. Exceptions include the new Alternative 1 and 2 hookramps. Potential impacts to paleontological resources should be considered in the CEQA and NEPA environmental documents. As the preferred project is further refined, it may be necessary to perform a field survey and/or prepare a technical memo to discuss paleontological resources.

8.11 Hazardous Waste/Materials:
A review of the state Geotracker database indicates that there are no known hazardous materials sites within the project area. Soils adjacent to roads sometimes contain elevated levels of lead from past use of leaded gasoline. This aerially deposited lead (ADL) may be an issue since soil may be excavated and placed elsewhere in the project limits and/or disposed of outside of the highway right of way. If yellow stripe or thermoplastic is going to be removed it will need to be managed differently depending on its age and the way it will be removed. Some of the yellow traffic stripe in this segment of US 101 may be newer yellow stripe that does not contain lead, and some may have hazardous lead. Hazardous traffic stripe will need to be handled and disposed as a hazardous waste per regulations and specifications. Treated wood waste (TWW) includes posts for metal beam guard railing, the beam barrier, piles, or roadside signs. This project will require TWW to be removed and disposed of in accordance with regulations and specifications.

An Initial Site Assessment (ISA) is necessary to determine the presence and possible limits of contamination throughout the project area.

8.12 Air Quality:
Mitigation would be required for any of the proposed alternatives to reduce emissions during construction of the proposed project. Standard mitigation measures from the San Luis Obispo

Air Pollution Control District would be applied to reduce emissions associated with construction of the build alternatives. In the long term, the project is expected to reduce congestion thereby reducing emissions. An air quality technical report should be prepared to quantify potential project emissions and recommend appropriate mitigation measures. Due to the earthwork required for each, Alternatives 1 and 2 would likely result in higher overall emissions levels than Alternative 3.

8.13 Noise and Vibration:
The project may be considered a Type I project due to the horizontal alteration of Ramada and Theatre Drive. Non-commercial, sensitive receptors are relatively limited in the area, although single-family residences do exist on the northwestern and southeastern edges of the project area. These residences would be more likely to be affected by Alternatives 1 and 2. A noise study will likely need to be performed for all three alternatives.

8.14 Energy and Climate Change:
Energy use, along with greenhouse gas emissions would be considered in the air quality technical report.

8.15 Biological Environment:
All three alternatives are located within a predominately developed area. The project is located predominately within the maintained rights-of-way, on agricultural properties, and within the agricultural/ commercial developments. Based on aerial photos and a preliminary reconnaissance survey, no portions of the project area are undisturbed.

A historic blue line stream crossed the northern project area, in the proximity to where the hookramp intersections are proposed for Alternative 2. All three alternatives would intersect the historic alignment of the stream. These stream is currently culverted where it crosses under US 101 and Ramada Drive. The stream is also shown on the National Wetlands Inventory maps. However, during a reconnaissance survey, it did not appear that the remains of the blue-line stream were jurisdictional. There is no critical habitat within the project area or vicinity.

A search of the California Natural Diversity Database shows that there are three records within the 0.5 mile of the project area. A dead American badger (*taxidea taxus*) was identified on the side of Highway 101 in 2003. A 1913 occurrence of Mesa horkelia (*horkelia cuneata var. puberula*) is located generally to the south of the project area. A 2016 occurrence of western spadefoot toad (*spea hammondii*) was documented to the east of the project site within ephemeral pools within the railroad right-of-way. Habitat for these or any other special-status species is unlikely to occur within the project area due to the high level of urban development and active agricultural operations.

There are scattered valley oak trees that would be impacted or removed to various degrees by each of the alternatives. Nesting bird surveys and revegetation would be required of the project. Offsite stormwater mitigation, if required, would potentially occur within a drainage on the southwest portion of the project area. This area appears to provide the highest value habitat within the project area. The project may not require the preparation of a Natural Environment Study, but if necessary, a Natural Environment Study – Minimal Impacts report would likely suffice. Impacts to biological resources could be avoided, minimized, or mitigated with standard measures.

8.16 Cumulative Impacts:

The project is not expected to contribute to cumulative impacts to resources except for potentially agricultural resources. The conversion of agricultural properties and soils to other land uses occurs throughout the county as communities to continue to develop. All four project alternatives will contribute to this cumulative loss of agricultural resources which occurs county and state wide.

8.17 Context Sensitive Solutions:

As this is an existing interchange with limited aesthetic and cultural value, there is potential for the project to better reflect the community social, economic, and environmental context of the community. The Templeton Area Advisory Group (TAAG) has been made aware of the project and is supportive of the proposed improvements. TAAG will be updated periodically throughout project development process.

9. Summary Statement for PSR or PSR-PDS

The anticipated environmental document for the project is an Initial Study/ Mitigated Negative Declaration. This document level has been selected based on the potential impacts to Agricultural Resources and the related, potential growth inducing impacts. . Caltrans will serve as the NEPA lead agency under its assumption of responsibility pursuant to 23 U.S. Code 327. Caltrans will also be the CEQA lead agency. The estimated time to obtain environmental approval is 27 months from the start of environmental studies. Assuming a start date of March, 2019, the final environmental document would be anticipated by June 2021.

It is anticipated multiple environmental studies and reports will be required for this project including (but not limited to): a farmland study, archaeology survey report, historic resource evaluation report, historic property survey report, initial site assessment, noise study, and air quality study. A natural environment study will also be required.

It is unlikely that a 401,404, and 1600 permit would be required from the RWQCB, USACE and CDFW respectively. Post-construction storm water measures will be required and may need to be implemented offsite. Construction monitoring and mitigation is expected to be standard and relatively limited for this project, except for agricultural mitigation. If it is necessary to purchase a conservation easement on agricultural property, for example, mitigation costs could exceed $400,000 for Alternative 1.

10. Disclaimer

This Preliminary Environmental Analysis Report (PEAR) provides information to support programming of the proposed project. It is not an environmental determination or document. Preliminary analysis, determinations, and estimates of mitigation costs are based on the project description provided in the Project Study Report (PSR). The estimates and conclusions in the PEAR are approximate and are based on cursory analyses of probable effects. A reevaluation of the PEAR will be needed for changes in project scope or alternatives, or in environmental laws, regulations, or guidelines.

11. List of Preparers

PEAR Preparer (Name and Title) Keith Miller, Environmental Resource Specialist	Date: 05/03/18

12. Review and Approval

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

Environmental Branch Chief

Date: 5/23/18

Project Manager

Date: 5/22/2018

REQUIRED ATTACHMENTS:

Attachment A: PEAR Environmental Studies Checklist
Attachment B: PEAR Environmental Commitments Cost Estimate (Standard PSR)

Attachment A: PEAR Environmental Studies Checklist

Rev. 11/08

Environmental Studies for PA&ED Checklist					
	Not anticipated	Memo to file	Report required	Risk* L M H	Comments
Land Use	☒	☐	☐	**L**	
Growth	☐	☐	☒	**H**	To be discussed in EIR. New hookramps possibly growth-inducing on Dusi Vineyard
Farmlands/Timberlands	☐	☐	☒	**H**	Loss of prime soils and impacts to comm. ag operation
Community Impacts	☒	☐	☐	**L**	
Community Character and Cohesion	☒	☐	☐	**L**	
Relocations	☒	☐	☐	**L**	
Environmental Justice	☒	☐	☐	**L**	
Utilities/Emergency Services	☒	☐	☐	**L**	
Visual/Aesthetics	☐	☐	☒	**L**	Loss/Change of views to the west due to new hookramp.
Cultural Resources:	☐	☐	☐		
Archaeological Survey Report	☐	☐	☒	**L**	
Historic Resources Evaluation Report	☐	☐	☒	**M**	Dusi Vineyard and scattered structures
Historic Property Survey Report	☐	☐	☒	**L**	
Historic Resource Compliance Report	☒	☐	☐	**L**	
Section 106 / PRC 5024 & 5024.5	☒	☐	☐	**L**	
Native American Coordination	☐	☐	☒	**L**	AB 52
Finding of Effect	☒	☐	☐	**L**	
Data Recovery Plan	☒	☐	☐	**L**	
Memorandum of Agreement	☒	☐	☐	**L**	
Other:	☐	☐	☐	**L**	
Hydrology and Floodplain	☒	☐	☐	**L**	No alternatives in 100-year floodplain
Water Quality and Stormwater Runoff	☐	☐	☒	**L**	SWPPP; offsite post-construction requirements unknown
Geology, Soils, Seismic and Topography	☐	☐	☒	**L**	No known unusual circumstances
Paleontology	☐	☒	☐	**L**	Local formations have higher sensitivity, but most areas disturbed
PER	☒	☐	☐	**L**	
PMP	☒	☐	☐	**L**	
Hazardous Waste/Materials:	☐	☐	☐	**L**	
ISA (Additional)	☐	☐	☒	**L**	
PSI	☒	☐	☐	**L**	

Environmental Studies for PA&ED Checklist					
	Not anticipated	Memo to file	Report required	Risk* L M H	Comments
Other:	☐	☐	☐	L	
Air Quality	☐	☐	☒	L	For construction emissions
Noise and Vibration	☐	☐	☒	L	
Energy and Climate Change	☐	☐	☒	L	Likely included with Air Quality report
Biological Environment	☐	☐	☐		
Natural Environment Study	☐	☐	☒	L	Minimal impact
Section 7:	☒	☐	☐	L	
Formal	☒	☐	☐	L	
Informal	☒	☐	☐	L	
No effect	☒	☐	☐	L	
Section 10	☒	☐	☐	L	
USFWS Consultation	☒	☐	☐	L	
NMFS Consultation	☒	☐	☐	L	
Species of Concern (CNPS, USFS, BLM, S, F)	☒	☐	☐	L	
Wetlands & Other Waters/Delineation	☐	☒	☐	L	Unlikely – incorporate into NES, as necessary
404(b)(1) Alternatives Analysis	☒	☐	☐	L	
Invasive Species	☐	☒	☐	L	Incorporate into NES
Wild & Scenic River Consistency	☒	☐	☐	L	
Coastal Management Plan	☒	☐	☐	L	
HMMP	☐	☐	☒	L	If permits required, simple HMMP may be required
DFG Consistency Determination	☒	☐	☐	L	
2081	☒	☐	☐	L	
Other:	☒	☐	☐	L	
Cumulative Impacts	☒	☐	☐	L	
Context Sensitive Solutions	☒	☐	☐	L	
Section 4(f) Evaluation	☒	☐	☐	L	
Permits:					
401 Certification Coordination	☒	☐	☒	L	
404 Permit Coordination, IP, NWP, or LOP	☒	☐	☒	L	
1602 Agreement Coordination	☒	☐	☒	L	
Local Coastal Development Permit Coordination	☒	☐	☐	L	
State Coastal Development Permit Coordination	☒	☐	☐	L	
NPDES Coordination	☐	☐	☒	L	SWPPP
US Coast Guard (Section 10)	☒	☐	☐	L	
TRPA	☒	☐	☐	L	
BCDC	☒	☐	☐	L	

Attachment B: PEAR Environmental Commitments Cost Estimate

Standard PSR Only

(Prepare a separate form for each viable alternative described in the Project Study Report)

PART 1 PROJECT INFORMATION *rev. 11/08*

District-County-Route-Post Mile 5-SLO-101-52.44	EA: 05-0M460
Project Description: Improve Main Street at Highway 101 Interchange in Templeton, CA	
Form completed by (Name/District Office): Keith Miller – County of SLO	
Project Manager: Paul Valadao	Phone Number: 805-549-3175
Date: 03/19/18	

PART 2a PERMITS AND AGREEMENTS

	Permits and Agreements ($$)
☐ Fish and Game 1602 Agreement	n/a
☐ Coastal Development Permit	n/a
☐ State Lands Agreement	n/a
☐ Section 401 Water Quality Certification	n/a
☐ Section 404 Permit – Nationwide (U.S. Army Corps)	n/a
☐ Section 404 Permit – Individual (U.S. Army Corps)	n/a
☐ Section 10 Navigable Waters Permit (U.S. Army Corps)	n/a
☐ Section 9 Permit (U.S. Coast Guard)	n/a
☒ CEQA Document (County of SLO)	$200,000
☐ Other:	n/a
Total (enter zeros if no cost)	**$200,000**

PART 2b TECHNICAL STUDIES

	Approx Cost	Comments
Farmlands/Timberlands	10,000	Loss of prime soils and impacts to comm. ag operation
Visual/Aesthetics	12,000	Loss of vineyard views
Archaeological Survey Report	14,500	
Historic Resources Evaluation Report	17,500	20 structures assumed
Historic Property Survey Report	5,000	
Native American Coordination	2,000	AB 52
Water Quality and Stormwater Runoff	--	SWPPP required
Geology, Soils, Seismic and Topography	20,000	Typical report necessary for engineering
Paleontology	7,500	
Hazardous Waste/Materials/ISA	12,000	Phase I report – no testing
Air Quality/GHG	12,000	For construction emissions
Natural Environment Study	17,500	Minimal impact
Noise Study	14,500	Limited sensitive receptors
Total	**144,500**	

PART 3. ENVIRONMENTAL COMMITMENTS FOR PERMANENT IMPACTS

To complete the following information:

- Report costs in $1,000s.
- Include all costs to complete the commitment:
  - O.K. to break down by phase: Design, ROW, Construction, and/or provide Sub-Total.
  - Capital outlay and staff support. Refer to Estimated Resources by WBS Code. For example, if you estimated 80 hours for biological monitoring (WBS 235.35 Long Term Mitigation Monitoring), convert those hours to a dollar amount for this entry. For current conversion rates from PY to dollars, see the Project Manager.
  - Cost of right of way or easements.
  - If compensatory mitigation is anticipated (for wetlands, for example), insert a range for purchasing credits in a mitigation bank.
  - Long-term monitoring and reporting
  - Any follow-up maintenance
  - Use current costs; the Project Manager will add an appropriate escalation factor.
  - This is an estimating tool, so a range is not only acceptable, but advisable.

Environmental Commitments Alternative (1-3)					
	Estimated Cost in $1,000's				Notes
	Phases				
	Design	ROW	Construction	Sub-Total	
Noise abatement or mitigation	0	0	0	0	
Special landscaping	0	0	0	0	
Archaeological resources	0	0	0	0	
Biological resources	0	0	5-10	5-10	Revegetation and monitoring
Historical resources	0	0	0	0	
Scenic resources	0	0	0	0	
Wetland/riparian resources	0	0	0	0	
Agricultural mitigation			50-500	50-500	
Total (enter zeros if no cost)			**55-510**	**55-510**	

NOTES

1. DESIGN EXCEPTIONS:
   -VERTICAL CLEARANCE 16.1' < 16.5' (MANDATORY), IF BRIDGE SOFFIT IS TO REMAIN THE SAME. CURRENTLY, THE PLAN IS TO REPLACE THE BRIDGE AND RAISE THE SOFFIT.
2. BOTH HOOK RAMP INTERSECTIONS WARRANT SIGNALS.
3. BRIDGE DOES NOT REQUIRE LENGTHENING NOR REPLACEMENT

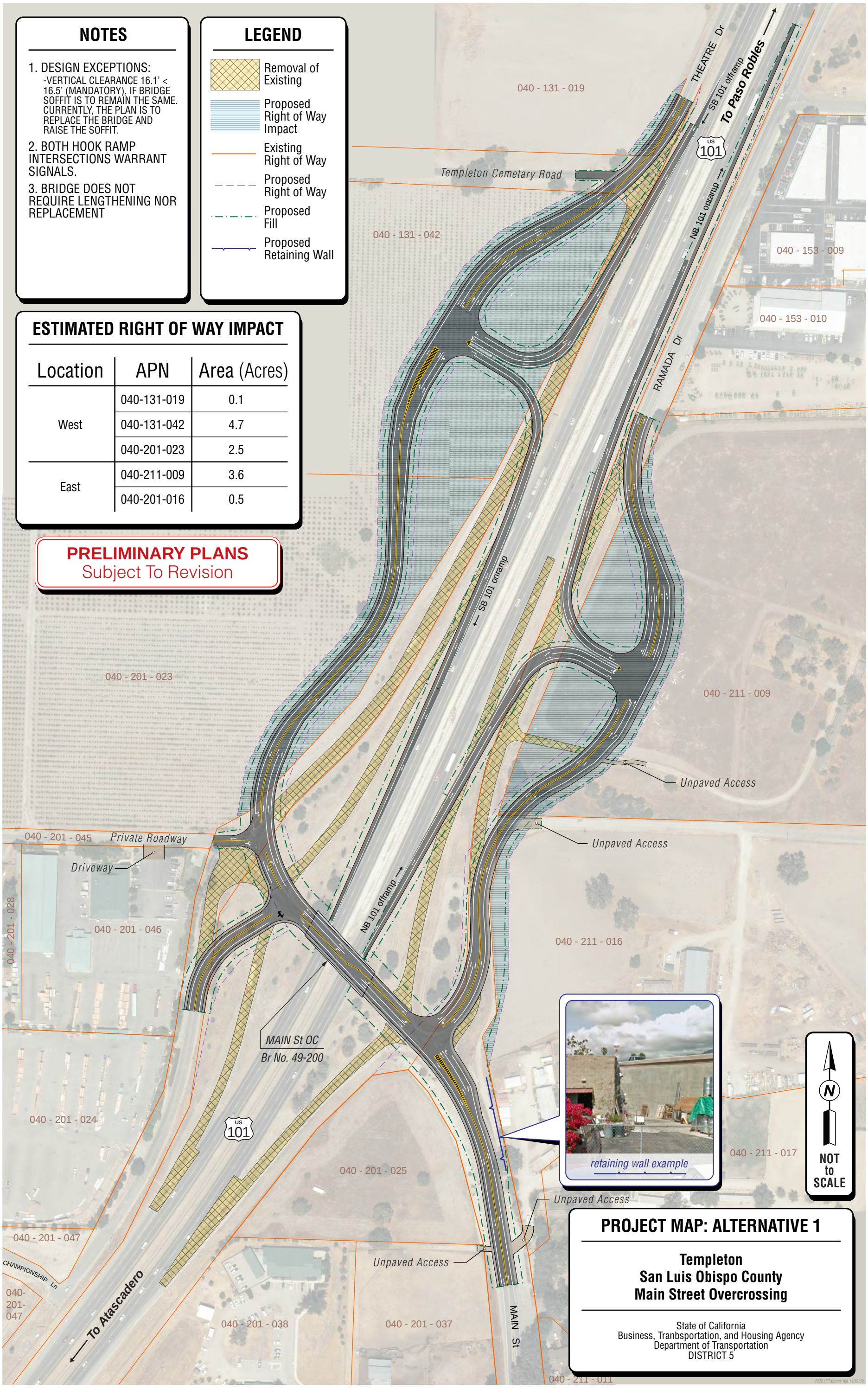
LEGEND

- Removal of Existing
- Proposed Right of Way Impact
- Existing Right of Way
- Proposed Right of Way
- Proposed Fill
- Proposed Retaining Wall

ESTIMATED RIGHT OF WAY IMPACT

Location	APN	Area (Acres)
West	040-131-019	0.1
	040-131-042	4.7
	040-201-023	2.5
East	040-211-009	3.6
	040-201-016	0.5

PRELIMINARY PLANS
Subject To Revision



NOT to SCALE

PROJECT MAP: ALTERNATIVE 1

Templeton
San Luis Obispo County
Main Street Overcrossing

State of California
Business, Tranbsportation, and Housing Agency
Department of Transportation
DISTRICT 5

NOTES

1. DESIGN EXCEPTIONS:
   -ACQUIRE ACCESS CONTROL OPPOSITE TO RAMP TERMINALS (MANDATORY)
2. BREQUIRES LENGTHENING OF BRIDGE SPANS DUE TO PROPOSED ON-RAMPS.
3. REQUIRES COMPLETE BRIDGE REPLACEMENT DUE TO COMPLEXITY OF STAGING WIDENING AND LENGTHENING WHILE CONSIDERING THE AGE OF THE BRIDGE.

LEGEND

- Removal of Existing
- Proposed Right of Way Impact
- Existing Right of Way
- Proposed Right of Way
- Proposed Fill
- Proposed Retaining Wall

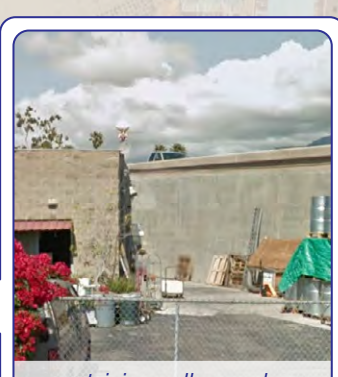
ESTIMATED RIGHT OF WAY IMPACT

Location	APN	Area (Acres)
West	040-201-023	3.7
	040-131-042	0.1
East	040-211-016	1.4
	040-201-025	1.5
	040-201-038	0.1

PRELIMINARY PLANS
Subject To Revision

040 - 131 - 042
040 - 153 - 010
040 - 201 - 023
040 - 211 - 009
040 - 201 - 045
040 - 201 - 028
040 - 201 - 046
040 - 211 - 016
040 - 201 - 024
040 - 201 - 025
040 - 201 - 047
040 - 211 - 017
040 - 201 - 038
040 - 201 - 037
040 - 211 - 011
040 - 201 - 033

THEATRE Dr
SB 101 offramp
NB 101 onramp
To Paso Robles
US 101
RAMADA Dr
Private Roadway
Driveway
Unpaved Access
MAIN St OC
Br No. 49-200
THEATRE Dr
CHAMPIONSHIP Ln
SB 101 onramp
NB 101 offramp
To Atascadero
Unpaved Access
Unpaved Access
MAIN St


retaining wall example

NOT to SCALE

PROJECT MAP: ALTERNATIVE 2

Templeton
San Luis Obispo County
Main Street Overcrossing

State of California
Business, Tranbsportation, and Housing Agency
Department of Transportation
DISTRICT 5

NOTES

1. DESIGN EXCEPTIONS:
   -VERTICAL CLEARANCE UNDER BRIDGE IS 16.1' < 16.5' (MANDATORY)
   -INTERSECTION SPACING AT 333' < 400' (MANDATORY)
2. ROUNDABOUTS ICD (definition?) = 175'
3. BRIDGE REQUIRES WIDENING

ESTIMATED RIGHT OF WAY IMPACT

Location	APN	Area (Acres)
West	040-201-023	1.1
	040-201-045	0.1
	040-201-046	0.1
East	040-211-016	1.2
	040-211-025	0.3

LEGEND

- Removal of Existing
- Proposed Right of Way Impact
- Existing Right of Way
- Proposed Right of Way
- Proposed Fill
- Proposed Retaining Wall

PRELIMINARY PLANS
Subject To Revision

040 - 131 - 042
To Paso Robles
040 - 153 - 010
US 101
THEATRE Dr
SB 101 offramp
RAMADA Dr
040 - 211 - 009
040 - 201 - 023
040 - 201 - 045
Private Roadway
Driveway
Unpaved Access
NB 101 onramp
MAIN St OC
Br No. 49-200
040 - 201 - 028
040 - 201 - 046
Driveway
040 - 211 - 016
040 - 201 - 024
THEATRE Dr
NB 101 offramp
040 - 201 - 025
040 - 211 - 017
Unpaved Access
CHAMPIONSHIP Ln
040 - 201 - 047
Unpaved Access
MAIN St
SB 101 onramp
040 - 201 - 047
040 - 201 - 038
040 - 201 - 037
040 - 211 - 011
US 101
To Atascadero
040 - 201 - 033

N
NOT to SCALE

PROJECT MAP: ALTERNATIVE 3

Templeton
San Luis Obispo County
Main Street Overcrossing

State of California
Business, Tranbsportation, and Housing Agency
Department of Transportation
DISTRICT 5

ATTACHMENT J

Dist-County-Route: 05-SLO-101
Post Mile Limits: 52.44/52.44
Type of Work: Reconfigure Interchange @ Rte 101/Main St
Project ID (EA): 05-0002-0023-K (05-0M460K)
Program Identification: 400.100 Oversight

Phase: ☒ PID ☐ PA/ED ☐ PS&E

Regional Water Quality Control Board(s): Central Coast, Region 3

Total Disturbed Soil Area: 12.06 ac

Post Construction Treatment Area: NIS in CT ROW= 0.27 ac. NIS in County ROW = 3.0 ac.

Alternative Compliance (acres) N/A

Estimated Const. Start Date: May 2023

Est Const. Completion Date: January 2025

Is the Project covered under the Construction General Permit? Yes ☒ No ☐

Risk Level: RL 1 ☐ RL 2 ☒ RL 3 ☐ WPCP ☐ Other: ____

Does Project require a Rapid Stability Assessment? Yes ☐ No ☒

Is the Project within a TMDL area where Caltrans is a named stakeholder? Yes ☐ No ☒

TMDL Compliance Units (acres) N/A

Notification of ADL reuse (if yes, provide date): Yes ☐ Date:_____ No ☒

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

Jackson S. Ho, Registered Project Engineer — 5-10-18 Date

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

Paul Valadao, Project Manager — 5-11-18 *Date*

Jay Karl, Designated Maintenance Representative — 05/16/2018 *Date*

Scott Dowlan, Designated Landscape Architect Representative — 5/11/18 *Date*

(Stamp Required for PS&E only)

FOR *James Espinosa, Regional SW Coordinator or Designee* — 5/18/2018 *Date*

ATTACHMENT K

COUNTY OF SAN LUIS OBISPO - DEPARTMENT OF PUBLIC WORKS

RIGHT OF WAY DATA SHEET

To: Joshua Roberts
Transportation Division Manager

Date: 11/2/2017

Attention: Genaro Diaz, Project Manager

Subject: Right of Way Estimate Alternative 1

Project WBS Number and Description: WBS 300150.01 Main St Templeton Alt 1 11-2-2017

1. Right of Way Cost Estimate: Estimate Maps prepared by: Jackson Ho, Caltrans, October 26, 2017

Total Acquisition Cost Acquisition, incl. Ex. Lands, Dmgs, Escrow, Gdwill (escalated)	$ 2,586,500
Clearance/Demolition (Parcel improvement removal)	$
Relocation Assistance	$
Total Estimated Cost (escalated)	$ 2,586,500
Other Misc. Project Costs (*Staff/Consultant Costs):	$ 56,000
Utility Relocation (To be estimated by others)	$
Construction Contract Work *(Parcel reconstruction costs to be included in project)*	$
Estimated RW Begin Date (Proj Apprvl, Maps, Env Clear, Funding):	2021
Estimated RW & Utility Relocation Lead Time (months):	18 months
Proposed Right of Way Certification Date:	2023

No. Parcels:	4
Non-Complex:	
Standard:	3
Complex/Contentious:	1
Total parcels:	4

No. Utility Relocations: TBD
Utilities Impacted (Name/Type): TBD
(To be determined by others)

Number Anticipated Condemnations: 1

Description of required right of way (zoning, use, remnants, major improvements, sensitive parcels, etc.):
Four partial acquisitions anticipated. Two of three properties are zoned Commercial Retail. One property is zoned Public Facility/Commercial Service. The fourth ownership is zoned residential rural and currently planted in vineyard. Minor improvements (fences, crops). Severance damages estimated for each property.

Major items of construction contract work: Drive approaches to be conformed
Utility replacement easements required: None estimated. Relocation within County ROW assumed.
Environmental concerns impacting replacement easements: N/A
Railroad facilities or rights of way affected: None

Hazardous waste and/or material anticipated: None

RAP displacements required: None
No. of single family _____ No. of business/nonprofit _____
No. of multi-family _____ No. of farms _____
Draft/Final Relocation Impact Statement/Study dated _____. It is anticipated that sufficient replacement housing (will/will not) be available without Last Resort Housing.

Material Borrow and/or Disposal Sites to be acquired by RW: None
Potential relinquishments and/or abandonments associated with project: Unknown.
Right of Way schedule and lead time concerns or assumptions: _____

Right of Way work to be done by staff or consultant: *Either Staff or Consultant.

RW Evaluation Prepared By: _____
Name Date

Utility Evaluation Prepared By: (To be completed by others)
Name Date

Approved:

By: _____
PHIL ACOSTA
Right of Way Agent

Main St Hwy 101 Hook Ramps Templeton
WBS 300150.01 Alt 1

11/2/2017

APN	Owner	Address	Zoning	Use	Total AC	Req'd SF	Unit Val. SF	Land Cost	Improvements	Damages	Parcel Cost	Comments
040-201-023	Dusi	Theatre Dr, Temp	CS/RR	Ag	52.5	108900	$2.25	$245,025	$20,000	$5,000	$270,025	1,100 lf fence, vines, irrig, relo Sign
040-131-042	Dusi	Theatre Dr, Temp	CS/RR	Ag	10.02	204732	$2.25	$460,647	$12,000	$5,000	$477,647	650 lf fence, vines, irrig, relo Sign
040-131-019	Templeton Cemetery	Theatre Dr, Temp	CS/RR		5	4356	$5.00	$21,780	$5,000	$5,000	$31,780	403 lf ag fence
040-211-016	Mandrille	507 N Main St, Temp	CR/AG		23.58	21780	$7.00	$152,460	$2,000	$5,000	$159,460	Minor Fence, possible irrigation
040-201-025	GV4	Main St, Temp	CR		41.6	156816	$7.00	$1,097,712	$25,000	$5,000	$1,127,712	1,000 lf ag fence, possible irrigation
										Subtotal	$2,066,624	
							Title and Escrow				$8,000.00	
										Subtotal	$2,074,624	
							Total ROW Escalated 3.2%/yr x 7 yrs				$2,586,409	

UTILITY ESTIMATE (NOT INCLUDED IN RW DATA SHEET)										
Utility Co.				$/	County %	Cost				
Templeton CSD (Theater Dr & Ramada Dr)	U.G. wtr & valves	3400	$100	100%	$340,000					Relocate 10" to 12" waterlines
AT&T Telephone (Theater Dr, N of Main St)	UG & OH Tel (lf)	2556	$200	50%	$255,600					U.G. service line
PG&E (Main St Ext W of 101)	Oh'd Poles (ea)	4	$50,000	100%	$200,000					Overhead power 4 poles
So Cal Gas (Theater Dr N of Main St)	UG HP Nat Gas	3000	$675	50%	$1,012,500					U.G. High Pressure Nat Gas
So Cal Gas (Ramada Dr N of Main St)	UG HP Nat Gas	1600	$675	50%	$540,000					U.G. High Pressure Nat Gas
AT&T Fiber & Wire (Ramada Dr N of Main)	UG Fiber & Wire (lf)	5200	$350	50%	$910,000					U.G. Fiberoptic & Wire lines (multiple)
							Total Utility Relo Cost		$3,258,100	
						Contingency 25%			$814,525	
								Subtotal	$4,072,625	
						Total Utility Relo Escalated 3.2%/yr x 7 yrs			$5,077,294	Excluding any replacement easements

COUNTY OF SAN LUIS OBISPO - DEPARTMENT OF PUBLIC WORKS

RIGHT OF WAY DATA SHEET

To: Joshua Roberts
Transportation Division Manager

Date: 03/29/2018 (Revised)

Attention: Genaro Diaz, Project Manager

Subject: Right of Way Estimate Alternative 2

Project WBS Number and Description: WBS 300150.01 Main St Templeton Alt 2 11-2-2017

1. Right of Way Cost Estimate: Estimate Maps prepared by: Jackson Ho, Caltrans, October 26, 2016

Total Acquisition Cost Acquisition, incl. Ex. Lands, Dmgs, Escrow, Gdwill (escalated) $ 3,925,000

Clearance/Demolition (Parcel improvement removal) $ _____

Relocation Assistance $ _____

Total Estimated Cost (escalated) $ 3,925,000

Other Misc. Project Costs (*Staff/Consultant Costs): $ 61,500

Utility Relocation (To be estimated by others) $ _____

Construction Contract Work *(Parcel reconstruction costs to be included in project)* $ _____

Estimated RW Begin Date (Proj Apprvl, Maps, Env Clear, Funding): 2021

Estimated RW & Utility Relocation Lead Time (months): 18 months

Proposed Right of Way Certification Date: 2023

No. Parcels: 3
Non-Complex: _____
Standard: 2
Complex/Contentious: 1
Total parcels: 3

No. Utility Relocations: TBD
Utilities Impacted (Name/Type): TBD
(To be determined by others)

Number Anticipated Condemnations: 1

Description of required right of way (zoning, use, remnants, major improvements, sensitive parcels, etc.):
Two partial acquisitions and one full acquisition anticipated. Two of the three properties are zoned Commercial Retail. One property is zoned Residential Rural and currently planted in vineyard. Minor improvements (fences, crops). Acquisition of uneconomic remnant assumed on full acquisition. Severance damages estimated for partial acquisitions.

Major items of construction contract work: Drive approaches to be conformed
Utility replacement easements required: None estimated. Relocation within County ROW assumed.
Environmental concerns impacting replacement easements: N/A

Railroad facilities or rights of way affected: None
Hazardous waste and/or material anticipated: None

RAP displacements required: None
No. of single family _____ No. of business/nonprofit _____
No. of multi-family _____ No. of farms _____
Draft/Final Relocation Impact Statement/Study dated _____. It is anticipated that sufficient replacement housing (will/will not) be available without Last Resort Housing.

Material Borrow and/or Disposal Sites to be acquired by RW: None
Potential relinquishments and/or abandonments associated with project: Unknown.
Right of Way schedule and lead time concerns or assumptions: _____

Right of Way work to be done by staff or consultant: *Either Staff or Consultant.

RW Evaluation Prepared By: _____
Name Date

Utility Evaluation Prepared By: (To be completed by others)
Name Date

Approved:

By: _____
PHIL ACOSTA
Right of Way Agent

Main St Hwy 101 Hook Ramp Combo Templeton 3/29/2018
WBS 300150.01 Alt 2

APN	Owner	Address	Zoning	Use	Total AC	Req'd SF	Unit Val. SF	Land Cost	Improvements	Damages	Parcel Cost	Comments
040-201-023	Dusi	Theatre Dr, Temp	CS/RR	Ag	52.5	161172	$2.25	$362,637	$20,000	$5,000	$387,637	1,100 lf fence, vines, irrig, relo Sign
040-131-042	Dusi	Theatre Dr, Temp	CS/RR	Ag	10.02	4356	$2.25	$9,801	$10,000	$5,000	$24,801	650 lf fence, vines, irrig, relo Sign
040-211-016	Mandrille	507 N Main St, Temp	CR/AG		23.58	60984	$7.00	$426,888	$3,500	$5,000	$435,388	Minor Fence
040-201-025	Weyrick	Main ST, Temp	CR		3.4	148104	$15.00	$2,221,560		$5,000	$2,226,560	Assume full acq - Unec Remnant 1.9 ac
040-201-038	Sheriff	Main ST, Temp	CR		5	4356	$15.00	$65,340		$2,500	$67,840	County - fence to be reconstructed
										Subtotal	$3,142,226	
							Title and Escrow				$6,000.00	
										Subtotal	$3,148,226	
							Total ROW Escalated 3.2%/yr x 7 yrs				$3,924,856	

UTILITY ESTIMATE (NOT INCLUDED IN RW DATA SHEET)									
Utility Co.		lf or #poles	$/	County %	Cost				
Templeton CSD (Main St Ext W of 101)	U.G. water & valves	2000	100	100%	$200,000				Relocate 10" to 12" waterlines
AT&T Telephone (Theater Dr N of Main St)	UG Tel (lf)	0	$200	50%	$0				No Relo assumed
PG&E (Main St Ext W of 101)	Oh'd Poles (ea)	4	$50,000	100%	$200,000				Overhead power 4 poles
AT&T Telephone (Ramada Dr Ext W of 101)	UG & OH (lf)	2,000	$250	100%	$500,000				UG Fiber & Std + Cable on PG&E poles
So Cal Gas (Theater Dr)	UG HP Nat Gas	2500	$675	50%	$843,750				U.G. High Pressure Nat Gas
So Cal Gas (Ramada D)	UG HP Nat Gas	800	$675	50%	$270,000				U.G. High Pressure Nat Gas
						Total Utility Relo Cost		$2,013,750	
					Contingency 25%			$503,438	
							Subtotal	$2,517,188	
					Total Utility Relo Escalated 3.2%/yr x 7 yrs			$3,138,148	

COUNTY OF SAN LUIS OBISPO - DEPARTMENT OF PUBLIC WORKS

RIGHT OF WAY DATA SHEET

To: Joshua Roberts
Transportation Division Manager

Date: 03/29/2018 (Revised)

Attention: Genaro Diaz, Project Manager

Subject: Right of Way Estimate Alternative 3

Project WBS Number and Description: WBS 300150.01 Main St Templeton Alt 3 11-2-2017

1. Right of Way Cost Estimate: Estimate Maps prepared by: Jackson Ho, Caltrans, October 26, 2016

Total Acquisition Cost Acquisition, incl. Ex. Lands, Dmgs, Escrow, Gdwill (escalated) $ 1,062,000

Clearance/Demolition (Parcel improvement removal) $ _____

Relocation Assistance $ _____

Total Estimated Cost (escalated) $ 1,062,000

Other Misc. Project Costs (*Staff/Consultant Costs): $ 82,500

Utility Relocation (To be estimated by others) $ _____

Construction Contract Work *(Parcel reconstruction costs to be included in project)* $ _____

Estimated RW Begin Date (Proj Apprvl, Maps, Env Clear, Funding): 2021

Estimated RW & Utility Relocation Lead Time (months): 18 months

Proposed Right of Way Certification Date: 2023

No. Parcels: 5
Non-Complex: _____
Standard: 3
Complex/Contentious: 2
Total parcels: 5

No. Utility Relocations: TBD
Utilities Impacted (Name/Type): TBD
(To be determined by others)

Number Anticipated Condemnations: 2

Description of required right of way (zoning, use, remnants, major improvements, sensitive parcels, etc.):
Five partial acquisitions anticipated. Four of the five properties are zoned Commercial. One property is zoned Residential Rural and currently planted in vineyard. Minor improvements (fences, crops). Severance damages estimated for partial acquisitions.

Major items of construction contract work: Drive approaches to be conformed
Utility replacement easements required: None estimated. Relocation within County ROW assumed.
Environmental concerns impacting replacement easements: N/A
Railroad facilities or rights of way affected: None

COUNTY OF SAN LUIS OBISPO - DEPARTMENT OF PUBLIC WORKS

RIGHT OF WAY DATA SHEET

To: Joshua Roberts
Transportation Division Manager

Date: 03/29/2018 (Revised)

Attention: Genaro Diaz, Project Manager

Subject: Right of Way Estimate Alternative 3

Project WBS Number and Description: WBS 300150.01 Main St Templeton Alt 3 11-2-2017

1. Right of Way Cost Estimate: Estimate Maps prepared by: Jackson Ho, Caltrans, October 26, 2016

Total Acquisition Cost Acquisition, incl. Ex. Lands, Dmgs, Escrow, Gdwill (escalated) $ 1,062,000

Clearance/Demolition (Parcel improvement removal) $ _____

Relocation Assistance $ _____

Total Estimated Cost (escalated) $ 1,096,000

Other Misc. Project Costs (*Staff/Consultant Costs): $ 82,500

Utility Relocation (To be estimated by others) $ _____

Construction Contract Work *(Parcel reconstruction costs to be included in project)* $ _____

Estimated RW Begin Date (Proj Apprvl, Maps, Env Clear, Funding): 2021

Estimated RW & Utility Relocation Lead Time (months): 18 months

Proposed Right of Way Certification Date: 2023

No. Parcels: 5
Non-Complex: _____
Standard: 3
Complex/Contentious: 2
Total parcels: 5

No. Utility Relocations: TBD
Utilities Impacted (Name/Type): TBD
(To be determined by others)

Number Anticipated Condemnations: 2

Description of required right of way (zoning, use, remnants, major improvements, sensitive parcels, etc.):
Five partial acquisitions anticipated. Four of the five properties are zoned Commercial. One property is zoned Residential Rural and currently planted in vineyard. Minor improvements (fences, crops). Severance damages estimated for partial acquisitions.

Major items of construction contract work: Drive approaches to be conformed
Utility replacement easements required: None estimated. Relocation within County ROW assumed.
Environmental concerns impacting replacement easements: N/A
Railroad facilities or rights of way affected: None

Hazardous waste and/or material anticipated: None

RAP displacements required: None
No. of single family _____ No. of business/nonprofit _____
No. of multi-family _____ No. of farms _____
Draft/Final Relocation Impact Statement/Study dated _____. It is anticipated that sufficient replacement housing (will/will not) be available without Last Resort Housing.

Material Borrow and/or Disposal Sites to be acquired by RW: None
Potential relinquishments and/or abandonments associated with project: Unknown.
Right of Way schedule and lead time concerns or assumptions: _____

Right of Way work to be done by staff or consultant: *Either Staff or Consultant.

RW Evaluation Prepared By: _____
Name Date

Utility Evaluation Prepared By: (To be completed by others)
Name Date

Approved:

By: _____
PHIL ACOSTA
Right of Way Agent

Main St Hwy 101 Roundabouts Templeton 3/29/2018
WBS 300150.01 Alt 3

APN	Owner	Address	Zoning	Use	Total AC	Req'd SF	Unit Val. SF	Land Cost	Improvements	Damages	Parcel Cost	Comments
040-201-023	Dusi	Theatre Dr, Temp	CS/RR	Ag	52.5	47916	$2.25	$107,811	$20,000	$5,000	$132,811	1,100 lf fence, vines, irrig, relo Sign
040-201-045	Harris	690 N Main St, Temp	CS/RR		15.72	4356	$7.00	$30,492	$10,000	$5,000	$45,492	Harris Driveway, paving, etc
040-201-046	Weyrick-Diamond Pacific	624 N Main ST, Temp	CS		3.97	4356	$15.00	$65,340	$15,000	$5,000	$85,340	Misc Imps
040-211-016	Mandrille	507 N Main St, Temp	CR/AG		23.58	52272	$7.00	$365,904	$5,000	$5,000	$375,904	Minor fence
040-201-025	Weyrick	Main ST, Temp	CR		3.4	13068	$15.00	$196,020	$5,000	$5,000	$206,020	Fence
										Subtotal	$845,567	
							Title and Escrow				$6,000	
										Subtotal	$851,567	
							Total ROW Escalated 3.2%/yr x 7 yrs				$1,061,639	

UTILITY ESTIMATE (NOT INCLUDED IN RW DATA SHEET)

Utility Co.					$/	County %	Cost					
Templeton CSD (Theater Dr & Ramada Dr)		U.G. wtr & valves		1380	$100	100%	$138,000					Relocate 10" to 12" waterlines
AT&T Telephone (Theater Dr, N of Main St)		UG & OH Tel (lf)		0	$200	50%	$0					No relo assumed
PG&E (Main St Ext W of 101)		Oh'd Poles (ea)		5	$50,000	100%	$250,000					Overhead power 5 poles
So Cal Gas (Theater Dr N of Main St)		UG HP Nat Gas		1,550	$675	50%	$523,125					U.G. High Pressure Nat Gas
So Cal Gas (Ramada Dr N of Main St)		UG HP Nat Gas		600	$675	50%	$202,500					U.G. High Pressure Nat Gas
AT&T Fiber & Wire (Ramada Dr N of Main)		UG Fiber & Wire (lf)		1750	$350	50%	$306,250					U.G. Fiberoptic & Wire lines (multiple)
									Total Utility Relo Cost		$1,419,875	
							Contingency 25%				$354,969	
										Subtotal	$1,774,844	
							Total Utility Relo Escalated 3.2%/yr x 7 yrs				$2,212,677	

ATTACHMENT L

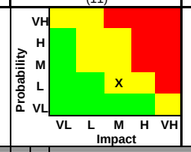
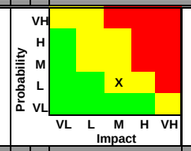
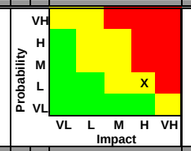
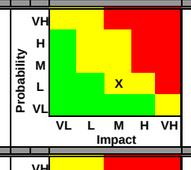
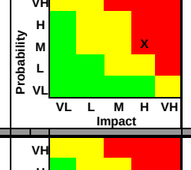
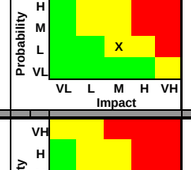
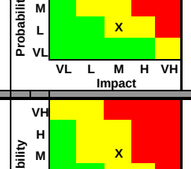
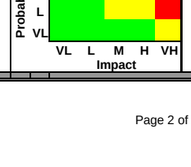
Dist - E.A	Co-Rte-PM	Project Name	Project Manager	Telephone Number	Date	Version/Draft
05-0M460	SLO-101-52.4	US 101/Main Street Interchange Project	Paul Valadao	(805) 549-3016	2/15/2017	PID (PSR-PDS)

PROJECT RISK MANAGEMENT PLAN

	Identification						Qualitative Analysis				OPTIONAL Quantitative Analysis			Risk Response Plan		Monitoring and Control	
Priority	Status	ID #	Date Identified Project Phase	Functional Assignment	Threat/Opportunity Event	Risk Trigger	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)	(18)
	Retired	1	2/15/2017 PID	Caltrans Design	Alternatives 1 and 2 would require CTC approval for a new connection and modified connections to the existing Freeway Agreement (FA) . (Note: Alternative 3 would not). There is a potential that CTC would not approve such an action.	After Design proposes a new and modified connections to the existing FA to the CTC, CTC would respond by not approving.	Schedule Cost	Low	High	X: VH, L	30%		$4,000,000	Mitigation	Prepare in advance the proposal for new and modified connections the existing Freeway Agreement with close coordination with Headquarters (HQ) Design. Use this close coordination HQ Design as early outreach to the CTC for advance review of said proposal.	David Beard	
	Active	2	2/15/2017 PID	Caltrans Environmental	Blue line stream with the jurisdiction of the "Waters of the U.S." is affected either in the north or south end of the proposed project limits. If so, this would require permits.	Informed by Caltrans Environmental or County of San Luis Obispo Environmental.	Schedule Cost	Low	High	X: VH, L	30%		$10,000 6 Months	Avoidance	Develop a scope/design that avoids jurisdictional waters.	Matt Fowler	
	Active	3	2/15/2017 PID	Caltrans Environmental	Significant permanent impacts that cannot be mitigated below the CEQA ND threshold would require an EIR, which will affect project schedule and support costs.	Informed by Caltrans Environmental or County of San Luis Obispo Environmental.	Schedule Cost	Low	High	X: VH, L	30%		$100,000 12 months	Avoidance	Develop a scope/design that avoids elevating the threshold of the CEQA environmental document type.	Matt Fowler	
	Active	4	2/15/2017 PID	Caltrans Storm Water	Using existing right of way lines to quantify impervious surface areas. No proposed right of way lines are available right now. Quantifications of impervious surface area is subject to change, which may affect treatment requirements for Caltrans and County storm water.	Informed by Caltrans Storm Water.	Cost	Moderate	Low	X: H, M	50%		$150,000	Avoidance	Develop a scope/design that avoids the need for additional Storm Water treatment requirements.	Pete Riegelhuth	
	Active	5	2/15/2017 PID	Caltrans Storm Water	Off-site mitigation requested somewhat late so details are not provided.	Informed by Caltrans Storm Water.	Schedule Cost	Low	High	X: VH, L	30%		$200,000 12 months	Avoidance	Develop a scope/design that avoids the need for off-site Storm Water mitigation.	Pete Riegelhuth	
	Active	6	2/15/2017 PID	Caltrans Design	Additional Design Exceptions would be required as a result of project scope development/refinement.	Informed by Caltrans Design or County of San Luis Obispo.	Schedule	Moderate	Very Low	X: H, L	50%		3 months	Mitigation	Review geometric features as needed.	David Beard	
	Active	7	2/15/2017 PID	Caltrans Design	Unidentified Materials/ Geotechnical/ Foundation issues	Identified by Caltrans Geotechnical Design or County of San Luis Obispo	Schedule	Moderate	Moderate	X: M	50%		6 months	Mitigation	Request Geotechnical information as early as practical.	David Beard	
	Active	8	2/15/2017 PID	Caltrans Design	Context sensitive solutions.	Identified while technical studies are being prepared for the environmental document and/or permits.	Schedule Cost	Moderate	Moderate	X: M	50%		$200,000 3 Months	Mitigation	Request any necessary Visual Impact Assessment as early as practical.	David Beard	

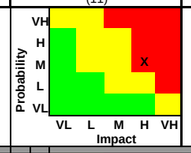
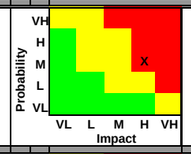
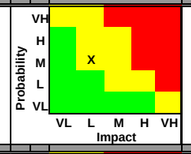
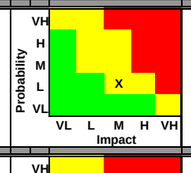
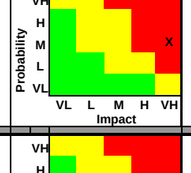
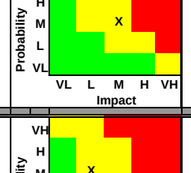
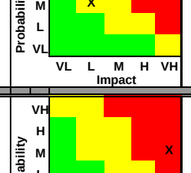
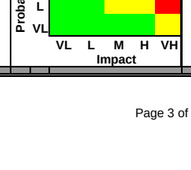
Dist - E.A	Co-Rte-PM	Project Name	Project Manager	Telephone Number	Date	Version/Draft
05-0M460	SLO-101-52.4	US 101/Main Street Interchange Project	Paul Valadao	(805) 549-3016	2/15/2017	PID (PSR-PDS)

PROJECT RISK MANAGEMENT PLAN

	Identification						Qualitative Analysis				OPTIONAL Quantitative Analysis			Risk Response Plan		Monitoring and Control	
Priority	Status	ID #	Date Identified Project Phase	Functional Assignment	Threat/Opportunity Event	Risk Trigger	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)	(18)
	Active	9	2/15/2017 PID	Caltrans Design	Alternatives 1 and 2 would require CTC approval for a new connection and modified connections to the existing Freeway Agreement (FA) . (Note: Alternative 3 would not). There is a potential that CTC would not approve such an action.	After Design proposes a new and modified connections to the existing FA to the CTC, CTC would respond by not approving.	Schedule	Low	Moderate		30%		3 Months	Mitigation	Prepare in advance the proposal for new and modified connections the existing Freeway Agreement with close coordination with Headquarters (HQ) Design. Use this close coordination HQ Design as early outreach to the CTC for advance review of said proposal.	David Beard	
	Active	10	2/15/2017 PID	Caltrans Project Management	Delay in beginning the PA&ED phase impacts the project's schedule.	Informed by Caltrans or County of San Luis Obispo Project Management.	Schedule	Low	Moderate		30%		6 Months	Mitigation	Begin Caltrans/County of San Luis Obispo cooperative agreement negotiations early.	Paul Valadao	
	Active	11	2/15/2017 PID	Caltrans Environmental	Difficulty with public acceptance of the project.	Negative comments received on Environmental Document and/or Permits.	Schedule	Low	High		30%		12 Months	Mitigation	Respond carefully and specifically to public comments	Matt Fowler	
	Active	12	2/15/2017 PID	Caltrans Environmental	Additional alternatives for study are likely to be requested by resource agencies, elected officials or the public after scoping has been completed.	Informed by stakeholders.	Schedule	Low	Moderate		30%		12 Months	Mitigation	Prepare to add an additional alternative.	Matt Fowler	
	Active	13	2/15/2017 PID	Caltrans Right-of-Way	Some project alternatives require the acquisition and/or easement of privately held property.	Informed by Caltrans or County Right-of-Way	Schedule	Moderate	High		50%		12 Months	Mitigation	Reach out to potentially affected private property owners as early as practical.	Chris Shaeffer	
	Active	14	2/15/2017 PID	Caltrans Right-of-Way	Utility issues regarding collaborating with utility companies and potholing.	Discovered during utility process.	Schedule	Low	Moderate		30%		3 Months	Mitigation	Begin utility coordination as early as possible.	John Magorian	
	Active	15	2/15/2017 PID	Caltrans Construction	Difficult winter conditions affect the project or roadway during construction, or cause detoured traffic from I-5.	Occurs during Construction.	Cost Schedule	Low	Moderate		30%		$50,000 3 months	Acceptance	Construction to develop contingency plan to handle additional traffic.	Wayne Walker	
	Active	16	2/15/2017 PID	Caltrans Environmental	Regulating Agencies choose to add excessive conditions to the project.	Informed by Caltrans Environmental or County of San Luis Obispo Environmental.	Cost Schedule	Moderate	Moderate		50%		$100K 12 months	Acceptance	Involve applicable agencies early.	Matt Fowler	

Dist - E.A	Co-Rte-PM	Project Name	Project Manager	Telephone Number	Date	Version/Draft
05-0M460	SLO-101-52.4	US 101/Main Street Interchange Project	Paul Valadao	(805) 549-3016	2/15/2017	PID (PSR-PDS)

PROJECT RISK MANAGEMENT PLAN

	Identification						Qualitative Analysis				OPTIONAL Quantitative Analysis			Risk Response Plan		Monitoring and Control	
Priority	Status	ID #	Date Identified Project Phase	Functional Assignment	Threat/Opportunity Event	Risk Trigger	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)	(18)
	Active	17	5/9/2018 PID	Caltrans Design	Alternatives 1 and 2 would require CTC approval for a new connection and modified connections to the existing Freeway Agreement (FA) . (Note: Alternative 3 would not). There is a potential that CTC would not approve such an action.	After Design proposes a new and modified connections to the existing FA to the CTC, CTC would respond by not approving.	**Scope** **Schedule**	Moderate	High		50%		12 months	Mitigation	Prepare in advance the proposal for new and modified connections the existing Freeway Agreement with close coordination with Headquarters (HQ) Design. Use this close coordination HQ Design as early outreach to the CTC for advance review of said proposal.	David Beard	
	Active	18	2/15/2017 PID	Caltrans Design	Because of a variation in bid price for various, overall bid amount is substantially different from estimate.	Evident in bid results.	**Cost**	Moderate	High		50%		$1,000,000	Mitigation	Investigate likely costs of prominent bid items early. Discuss thoroughly with OCER.	David Beard	
	Active	19	2/15/2017 PID	Caltrans Construction	Because of the traffic impacts as a result of lane closures during project stages/phases, there is public/political pressure to shorten the duration.	Complaints from the public are received.	**Cost**	Moderate	Low		50%		$75,000	Mitigation	Discuss methods of reducing the duration of lane closures. Offer incentives for early completion.	Wayne Walker	
	Active	20	2/15/2017 PID	Caltrans Construction	Because of a lack of available water, contractor's operations are delayed or costs are increased.	Notified by contractor.	**Schedule**	Low	Moderate		30%		6 Months	Mitigation	Investigate and notify water sources in advance and provide information to Contractor	Wayne Walker	
	Active	21	2/17/2017 PID	Caltrans Project Management	Lack of available project funding for future phases (i.e. PA&ED, Design, and Construction Phases).	Notified by County of San Luis Obispo.	**Schedule**	Moderate	Very High		50%		12 Months	Mitigation	Maintain routine communication with the County of San Luis Obispo and SLOCOG with regards to the funding outlook for this project.	Paul Valadao	
	Active	22	4/25/2018 PID	Caltrans Landscape Architecture	A three year plant establishment period will increase plant survivability, ensure compliance with the environmental commitments, and enable the planting to meet permit conditions. This will increase the overall project costs since planting work will need to be split-off and delivered as a standalone project in order to comply with the	Notified by Caltrans Landscape Architecture.	**Schedule** **Cost**	Moderate	Moderate		50%		36 Months	Acceptance	Include support and capital costs for stand-alone planting project.	Scott Dowlan	
	Active	23	4/25/2018 PID	Caltrans Landscape Architecture	Installation of a water meter will be critical in the success of the landscape planting.	Notified by Templeton Community Service District.	**Cost** **Schedule**	Moderate	Low		50%		50000	Acceptance	Access to a municipal water source will need to be determined. Water availability and use may be limited due to re-occurring drought conditions. Costs of installing a water meter could be expensive.	Scott Dowlan	
	Active	24	4/25/2018 PID	Caltrans Project Management	Alternatives may be controversial.	Indicated during public outreach.	**Schedule**	Moderate	Very High		50%		12 Months	Mitigation	This could require additional stakeholder involvement and may result in Design Exceptions to respond to the complexities of the project.	Paul Valadao	

ATTACHMENT M

Project Study Report – Project Development Support
Capital Outlay Project Estimate

Dist - Co - Rte 05-SLO-101
PM 52.4
Program Code 20.XX.400.100
Locally Generated Funds
Project Number 05000020023
Month/Year 06/18

PROJECT DESCRIPTION:

Limits: In San Luis Obispo County in Templeton at Main Street Overcrossing

Proposed Improvement (Scope): Interchange Reconfiguration

Alternate: 1

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	$ 9.8M-14.6M
TOTAL STRUCTURE ITEMS	$ 3.1M-3.8M
TOTAL ENVIRONMENTAL MITIGATION ITEMS	$ 0.7M-1.0M
SUBTOTAL CONSTRUCTION COSTS	$ 13.6M-19.4M
TOTAL RIGHT-OF-WAY ITEMS	$ 5.9M-8.9M
TOTAL PROJECT CAPITAL OUTLAY COSTS	$ 20M-28M

I. ROADWAY ITEMS

	Average Cost per Lane Mile		Number of Lane Miles		Total Cost
Total Cost	3.2M - 4.7M	X	3.1	=	9.8-14.6M

Explanation:

Major roadway items included in the Average Cost per Lane Mile calculation include: clearing and grubbing, roadway excavation, imported borrow, class 2 aggregate base, hot mix asphalt, minor concrete, reinforced concrete pipe, guard rail and barriers systems, landscaping, storm water, traffic electrical, traffic signing and striping, stage construction and traffic handling, retaining wall, detours, mobilization of 10%, supplemental work items, and state furnished items, time related overhead of 5%, and contingency of 25%.
Lane Miles calculation include local roads, ramps, and intersection surface areas. Bridge areas were excluded.
As this is an interchange project with many local roadway features and complex staging, an 11-page estimate was generated.
Contact Jackson Ho, Project Engineer of Caltrans, for more information.

TOTAL ROADWAY ITEMS $ 9.8-14.6M

II. STRUCTURES ITEMS

	Structure (1)	Structure (2)
Bridge Name	Main Street Overcrossing	
Total Cost for Structure	$3.1M-3.8M	

Explanation:

Total structures cost estimate is for the 3 lane bridge replacement of an existing bridge. Major items include: foundations, abutments, bents, girders, deck, and bridge rails.
Cost range is influenced by staging, aesthetic needs and unit cost variation.
Contact Michael Downs, Structures Liaison of Caltrans, for more information.

TOTAL STRUCTURE ITEMS $ 3.1M-3.8M

III. ENVIRONMENTAL MITIGATION

	Quantity	Unit		Unit Price		Item Cost
Environmental Mitigation	1	LS	X	$0.7M-1.0M	=	$0.7M-1.0M

Explanation:

Permits and Agreements include: Fish and Game, Section 401, Section 404, CEQA. Technical studies include: Farmlands, Visual, Archaeology, Historic Resources, Historic Property, Native American Coordination, Hydrology, Stormwater, Geology, Paleontology, Hazardous Waste, Air Quality, Natural Environment, and Noise. Environmental Commitments include: biological resource mitigation and agricultural mitigation.
Contact Keith Miller, Environmental Generalist of SLO County, for more information.

TOTAL ENVIRONMENTAL MITIGATION ITEMS $ 0.7M-1.0M

IV. RIGHT-OF-WAY ITEMS

	Escalated Value
A. Acquisition, including excess lands, damages to remainder(s) and Goodwill	$ 2.0-3.0M
B. Utility Relocation (County Share)	$ 3.9-5.9M

Anticipated Date of Right-of-Way Certification FY2024/25
(Date to which values are escalated)

Explanation:

Right-of-way cost estimate includes: acquisitions, title and escrow, and miscellaneous consultant costs.
See Conceptual Right-of-way data sheet for information regarding assumptions.
Contact Phil Acosta, Right-of-way agent of SLO County, for more information.

TOTAL RIGHT-OF-WAY ITEMS $ 5.9-8.9M

Project Study Report – Project Development Support
Capital Outlay Project Estimate

Dist - Co - Rte 05-SLO-101
PM 52.4
Program Code 20.XX.400.100
Locally Generated Funds
Project Number 05000020023
Month/Year 06/18

PROJECT DESCRIPTION:

Limits: In San Luis Obispo County In Templeton At Main Street Overcrossing

Proposed Improvement (Scope): Interchange Reconfiguration

Alternate: 2

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	$ 9.4M-14.2M
TOTAL STRUCTURE ITEMS	$ 4.0M-4.9M
TOTAL ENVIRONMENTAL MITIGATION ITEMS	$ 0.7M-1.0M
SUBTOTAL CONSTRUCTION COSTS	$ 14.1M-20.1M
TOTAL RIGHT-OF-WAY ITEMS	$ 5.5M-8.2M
TOTAL PROJECT CAPITAL OUTLAY COSTS	$ 20M-28M

I. ROADWAY ITEMS

	Average Cost per Lane Mile		Number of Lane Miles		Total Cost
Total Cost	$3.0M-4.6M	X	3.1	=	9.4M-14.2M

Explanation:

Major roadway items included in the Average Cost per Lane Mile calculation include: clearing and grubbing, roadway excavation, imported borrow, class 2 aggregate base, hot mix asphalt, minor concrete, reinforced concrete pipe, guard rail and barriers systems, landscaping, storm water, traffic electrical, traffic signing and striping, stage construction and traffic handling, retaining wall, detours, mobilization of 10%, supplemental work items, and state furnished items, time related overhead of 5%, and contingency of 25%.
Lane Miles calculation include local roads, ramps, and intersection surface areas. Bridge areas were excluded.
As this is an interchange project with many local roadway features and complex staging, an 11-page estimate was generated.
Contact Jackson Ho, Project Engineer of Caltrans, for more information.

TOTAL ROADWAY ITEMS $9.4M-14.2M

II. STRUCTURES ITEMS

	Structure (1)	Structure (2)
Bridge Name	Main Street Overcrossing	
Total Cost for Structure	$4.0M-4.9M	

Explanation:

Total structures cost estimate is for the 4 lane bridge replacement of an existing bridge. Major items include: foundations, abutments, bents, girders, deck, and bridge rails.
Cost range is influenced by staging, aesthetic needs and unit cost variation.
Contact Michael Downs, Structures Liaison of Caltrans, for more information.

TOTAL STRUCTURE ITEMS $ 4.0M-4.9M

III. ENVIRONMENTAL MITIGATION

	Quantity	Unit		Unit Price		Item Cost
Environmental Mitigation	1	LS	X	$0.7M-1.0M	=	$0.7M-1.0M

Explanation:

Permits and Agreements include: Fish and Game, Section 401, Section 404, CEQA. Technical studies include: Farmlands, Visual, Archaeology, Historic Resources, Historic Property, Native American Coordination, Hydrology, Stormwater, Geology, Paleontology, Hazardous Waste, Air Quality, Natural Environment, and Noise. Environmental Commitments include: biological resource mitigation and agricultural mitigation.
Contact Keith Miller, Environmental Generalist of SLO County, for more information.

TOTAL ENVIRONMENTAL MITIGATION ITEMS $ 0.7M-1.0M

IV. RIGHT-OF-WAY ITEMS

	Escalated Value
A. Acquisition, including excess lands, damages to remainder(s) and Goodwill	$ 3.0M-4.6M
B. Utility Relocation (County Share)	$ 2.5M-3.6M

Anticipated Date of Right-of-Way Certification FY 2024/25
(Date to which values are escalated)

Explanation:

Right-of-way cost estimate includes: acquisitions, title and escrow, and miscellaneous consultant costs.
See Conceptual Right-of-way data sheet for information regarding assumptions.
Contact Phil Acosta, Right-of-way agent of SLO County, for more information.

TOTAL RIGHT-OF-WAY ITEMS $ 5.5M-8.2M

Project Study Report – Project Development Support
Capital Outlay Project Estimate

Dist - Co - Rte 05-SLO-101
PM 52.4
Program Code 20.XX.400.100
Locally Generated Funds
Project Number 05000020023
Month/Year 06/18

PROJECT DESCRIPTION:

Limits: In San Luis Obispo County in Templeton at Main Street Overcrossing

Proposed Improvement (Scope): Interchange Reconfiguration

Alternate: 3

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	$ 8.8M-13.2M
TOTAL STRUCTURE ITEMS	$ 1.3M-1.6M
TOTAL ENVIRONMENTAL MITIGATION ITEMS	$ 0.3M-0.5M
SUBTOTAL CONSTRUCTION COSTS	$ 10.4M-15.3M
TOTAL RIGHT-OF-WAY ITEMS	$ 2.5M-3.8M
TOTAL PROJECT CAPITAL OUTLAY COSTS	$ 13M-19M

I. ROADWAY ITEMS

	Average Cost per Lane Mile		Number of Lane Miles		Total Cost
Total Cost	$5.2M-7.8M	X	1.7	=	$8.8M-13.2M

Explanation:

Major roadway items included in the Average Cost per Lane Mile calculation include: clearing and grubbing, roadway excavation, imported borrow, class 2 aggregate base, hot mix asphalt, minor concrete, reinforced concrete pipe, guard rail and barriers systems, landscaping, storm water, traffic electrical, traffic signing and striping, stage construction and traffic handling, retaining wall, detours, mobilization of 10%, supplemental work items, and state furnished items, time related overhead of 5%, and contingency of 25%.
Lane Miles calculation include local roads, ramps, and intersection surface areas. Bridge areas were excluded.
As this is an interchange project with many local roadway features and complex staging, an 11-page estimate was generated.
Contact Jackson Ho, Project Engineer of Caltrans, for more information.

TOTAL ROADWAY ITEMS $ 8.8M-13.2M

II. STRUCTURES ITEMS

	Structure (1)	Structure (2)
Bridge Name	Main Street Overcrossing	
Total Cost for Structure	$1.3M-1.6M	

Explanation:

Total structures cost estimate is for the 17 feet widening of an existing bridge.
Major items include: foundations, abutments, bents, girders, deck, and bridge rails.
Cost range is influenced by staging, aesthetic needs and unit cost variation.
Contact Michael Downs, Structures Liaison of Caltrans, for more information.

TOTAL STRUCTURE ITEMS $1.3M-1.6M

III. ENVIRONMENTAL MITIGATION

	Quantity	Unit		Unit Price		Item Cost
Environmental Mitigation	1	LS	X	$0.3M-0.5M	=	$0.3M-0.5M

Explanation:
Permits and Agreements include: Fish and Game, Section 401, Section 404, CEQA. Technical studies include: Farmlands, Visual, Archaeology, Historic Resources, Historic Property, Native American Coordination, Hydrology, Stormwater, Geology, Paleontology, Hazardous Waste, Air Quality, Natural Environment, and Noise. Environmental Commitments include: biological resource mitigation and agricultural mitigation.
Contact Keith Miller, Environmental Generalist of SLO County, for more information.

TOTAL ENVIRONMENTAL MITIGATION ITEMS $0.3M-0.5M

IV. RIGHT-OF-WAY ITEMS

	Escalated Value
A. Acquisition, including excess lands, damages to remainder(s) and Goodwill	$ 0.8M-1.2M
B. Utility Relocation (County Share)	$ 1.7M-2.6M

Anticipated Date of Right-of-Way Certification FY 2024/25
(Date to which values are escalated)

Explanation:
Right-of-way cost estimate includes: acquisitions, title and escrow, and miscellaneous consultant costs.
See Conceptual Right-of-way data sheet for information regarding assumptions.
Contact Phil Acosta, Right-of-way agent of SLO County, for more information.

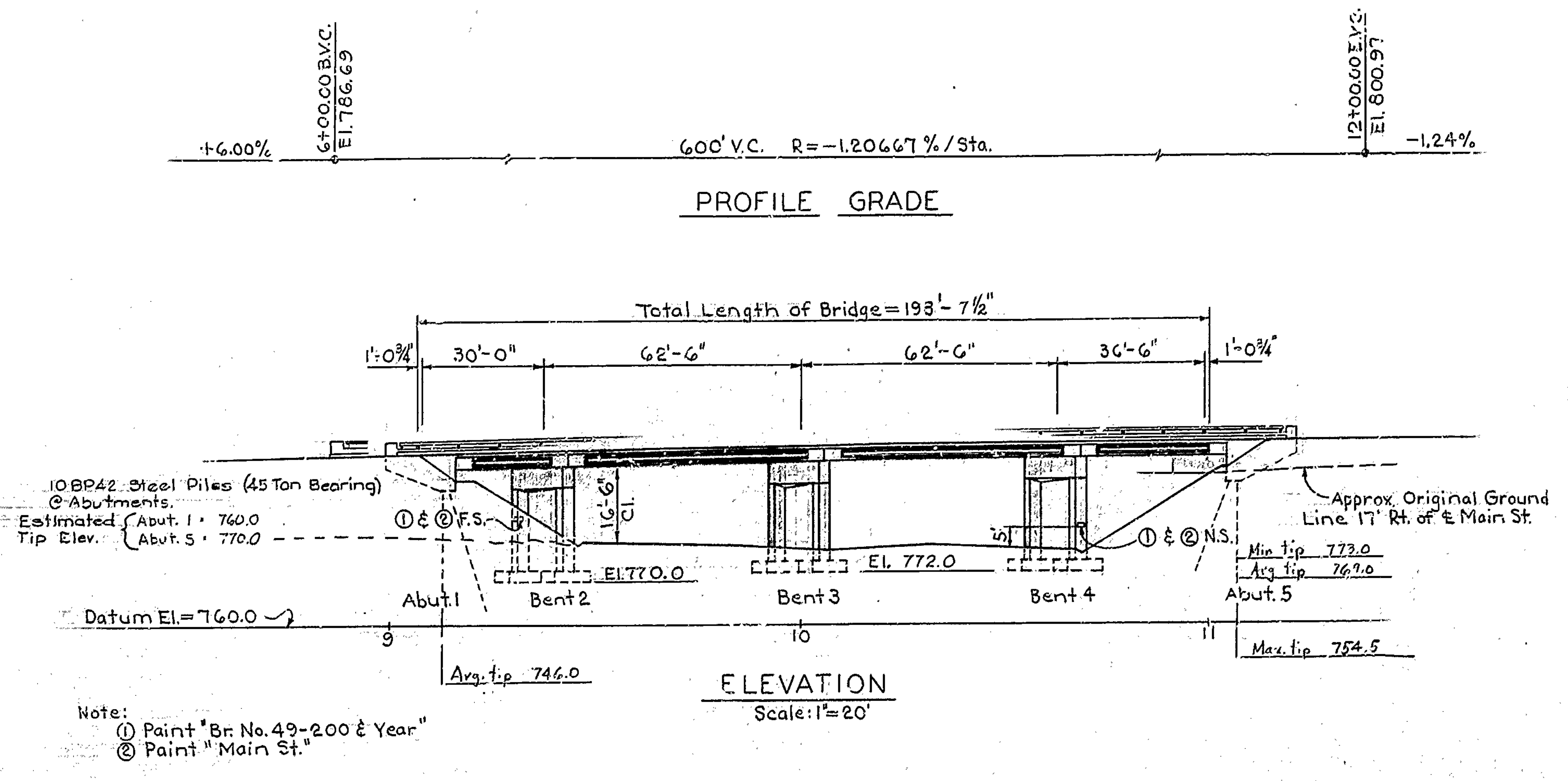
TOTAL RIGHT-OF-WAY ITEMS $ 2.5M-3.8M

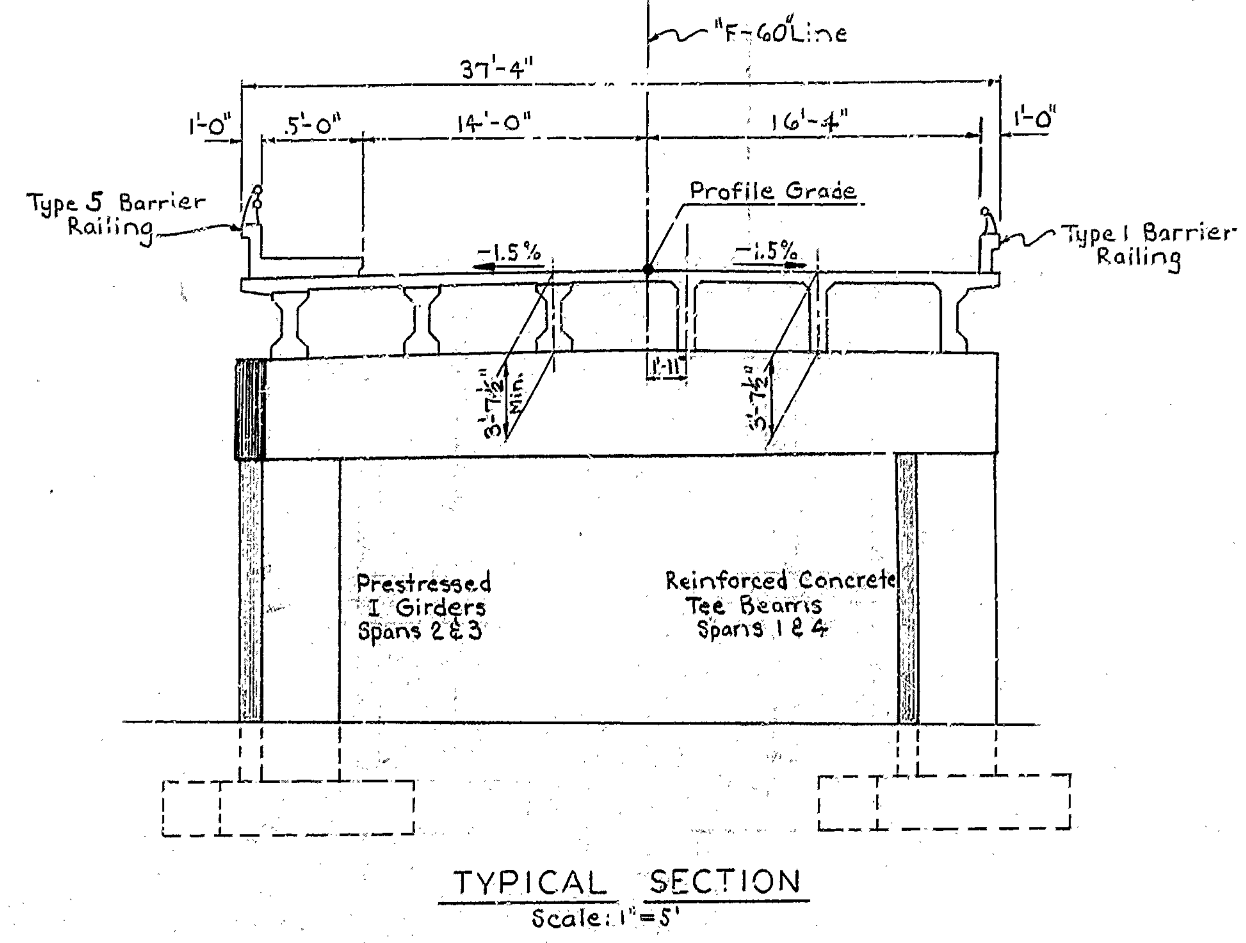
ATTACHMENT N

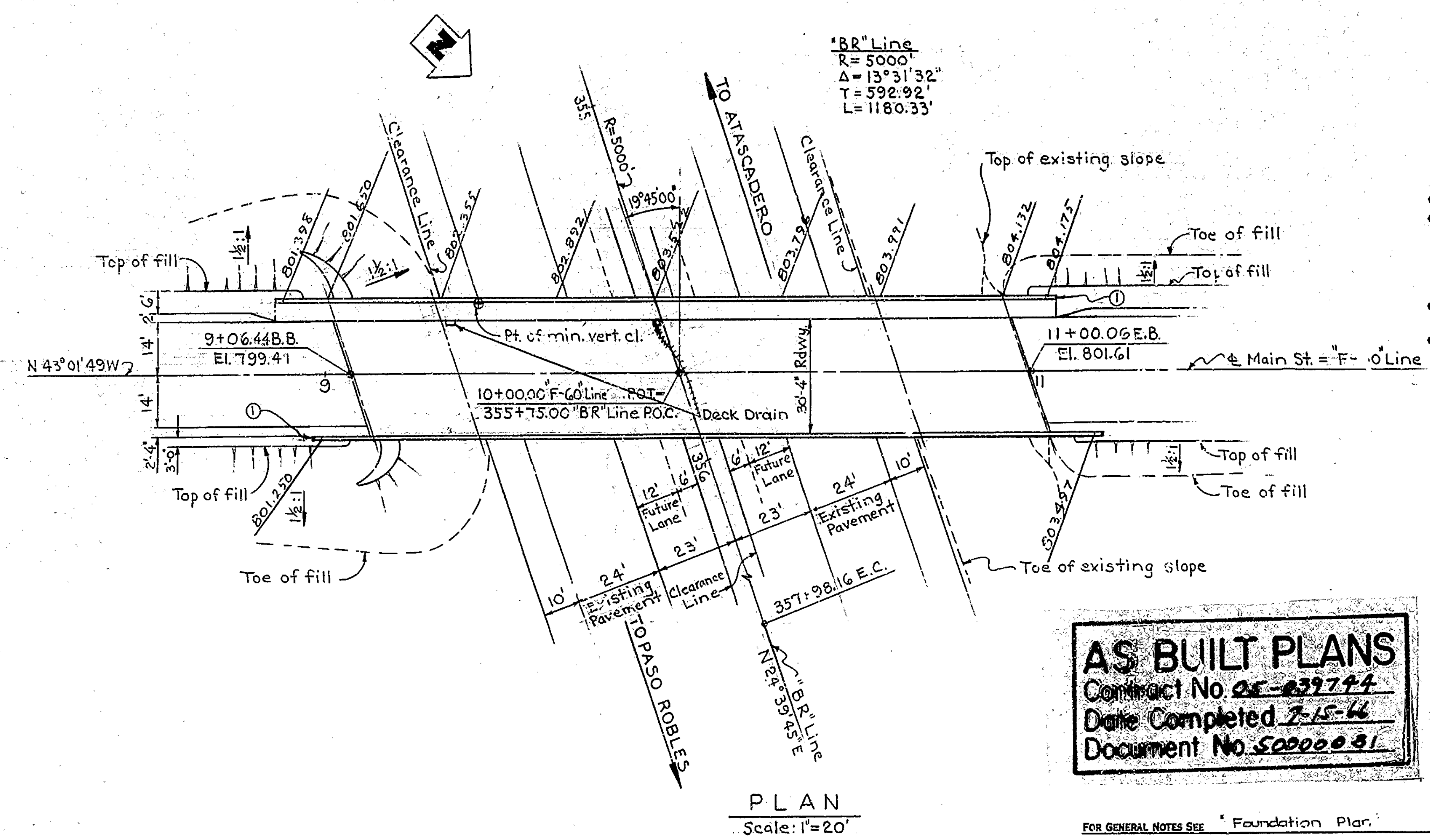
FED. ROAD DIV. NO.	STATE	F. A. PROJECT NO.	SHEET NO.	TOTAL SHEETS
7	CALIF.			

DIST.	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
V	SLO	101		90	106

October 19, 1964







APPROXIMATE QUANTITIES

*STRUCTURE EXCAVATION (BRIDGE)	360 CY
*STRUCTURE BACKFILL (BRIDGE)	234 CY
FURNISHING STEEL PILING (10BP42)	340 LF
DRIVING STEEL PILES	12 EA
FURNISHING PC/PS CONCRETE GIRDERS (62'-6")	12 EA
ERECTING PC/PS CONCRETE GIRDERS	12 EA
*CLASS "A" CONCRETE (BRIDGE)	448 CY
WATERSTOPS	118 LF
*BAR REINFORCING STEEL (BRIDGE)	108,000 LBS
MISCELLANEOUS METAL (BRIDGE)	500 LBS
BARRIER RAILING (TYPE 1)	222 LF
BARRIER RAILING (TYPE 5)	222 LF

*FINAL QUANTITIES

INDEX TO PLANS

AS BUILT
CORRECTIONS BY T.W. Carey
CONTRACT NO. 05-039744
DATE 9-1-66 2-23-67

AS BUILT PLANS
Contract No. 05-039744
Date Completed 7-15-66
Document No. S0000081

For General Notes See "Foundation Plan"

Live Loading H20-S16-44 and Alternative

SHEET	OF
1	11

BRIDGE DEPARTMENT
··· DESIGN SECTION ··· 9
Section Supervisor G. D. Hilbert
Project Designer E. H. Klein, Jr.

	By	Checked
DESIGN	LL Stitt 2-62	E. Evans 5/62
DETAILS	[illegible] 2-62	E. Evans 5/62
LAYOUT	LL Stitt	E. Evans 5/62
QUANTITIES	[illegible] 6/62	TT Suyetsugu
SPECIFICATIONS	[illegible]	Plans and Specs. Compared

Approval Recommended by [illegible] Design Engineer — Civil Engr. License No. 6240

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

MAIN STREET OVERCROSSING

LOCATED ABOUT 3.6 MILES SOUTH OF PASO ROBLES
IN SAN LUIS OBISPO COUNTY

GENERAL PLAN

SCALE AS NOTED | BRIDGE 49-200 | FILE | DRAWING 49200-1

039741 Disregard prints bearing earlier revision dates →
PRELIMINARY DRAWING No. P-49200-1
REVISION DATES 3/5/62, 2/14/62, 8/20/62, 3/7/62, 4/1/62, 8/1/64

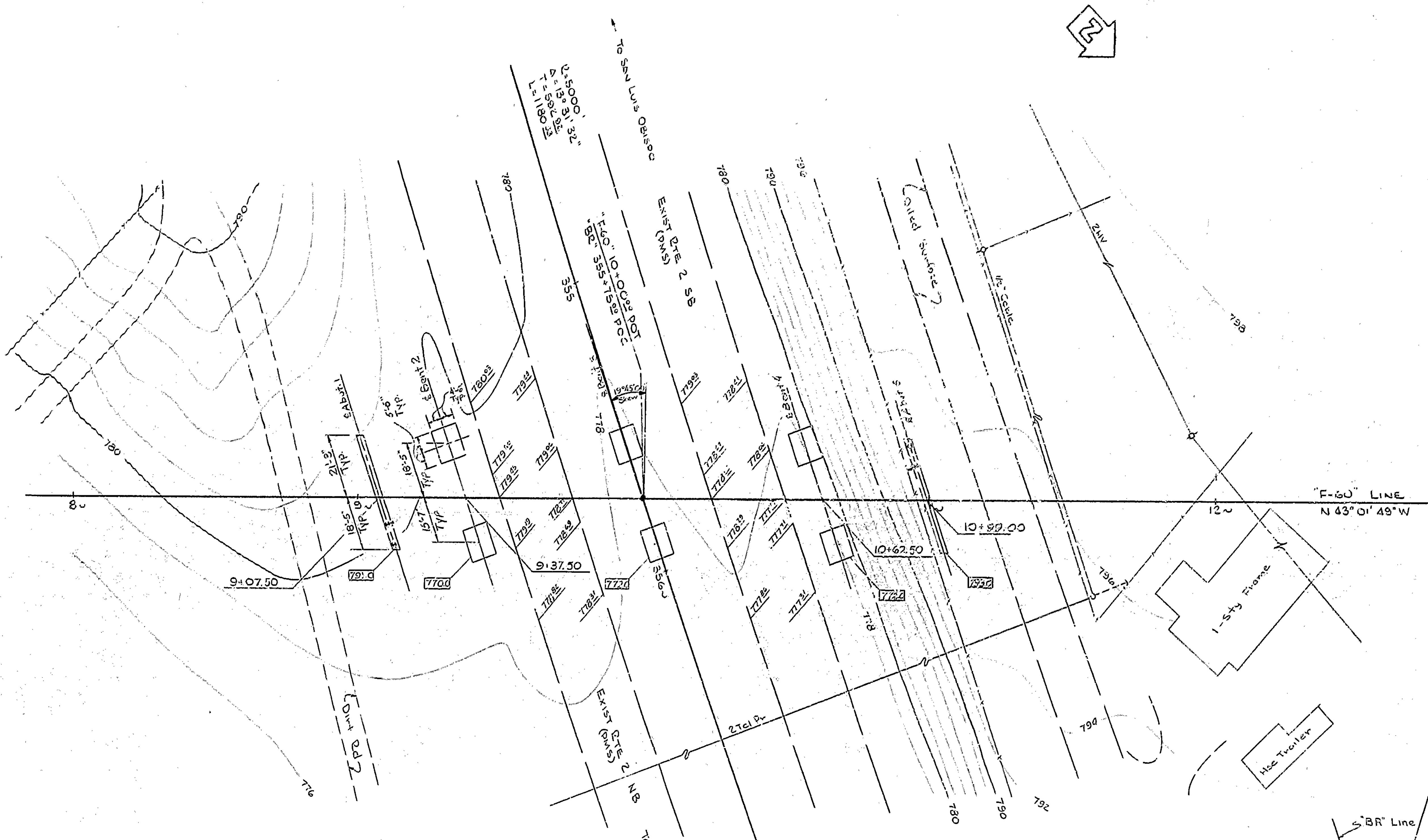
90480

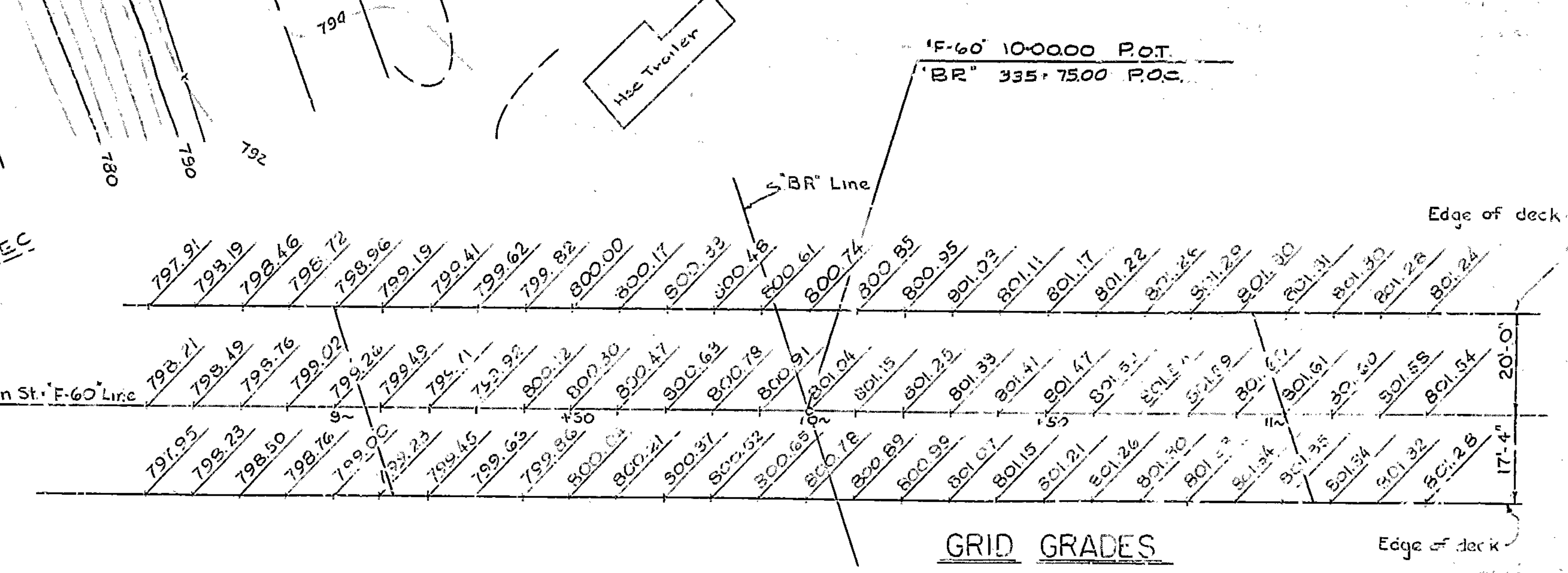
90

FED. RD. DIV. NO.	STATE	F. A. PROJECT NO.	SHEET NO.	TOTAL SHEETS
7	CALIF.			

DIST.	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
V	SLO	101	46.8-50.0	91	106

DATE APPROVED October 19, 1964





GENERAL NOTES

DESIGN: A.A.S.H.O. DATED 1961 WITH REVISIONS AND AS SUPPLEMENTED BY BRIDGE PLANNING AND DESIGN MANUAL.

LIVE LOADING: H20-S16-44 AND ALTERNATIVE

REINFORCED CONCRETE: FS = 20,000 P.S.I., N = 10

FC = 1,200 P.S.I.

FOOTING PRESSURE: (TONS P.S.F.)	ALLOWABLE	DESIGN
BENTS 2,3 & 4	4.0	3.5

AS BUILT
No CORRECTIONS BY T.W. Carey
CONTRACT NO. 05-039744
DATE 9-1-66 7-23-67

Note:
All Abutments & Bents bearing N 27° 13' 11" E

[0.0] Indicates bottom of footing elevation

I Indicates 10BP42 Steel Pile (45 Ton Bearing)
Ŧ Indicates 1:3 Battered Pile

Mon #18-12
Fd-CHC cap in mon
@ "BR" 366+16.5 POT
EL 793.32

Mon #18-13
Fd-CHC cap in mon
@ "BR" 357+96.45 POST
EL 774.30

Contour Interval 2 Feet

LEVEL DATUM USC&GS
FOR ALIGNMENT SEE DR 49200-1
CONTOURS AS OF 1-62
SITE PLAN FROM DISTRICT DATA
SURVEY BY DIST-118 DATE 1-62
DRAWN BY DRB DATE 1-62
TRACED BY ES DATE 1-23-62

91

AS BUILT PLANS
Contract No. 05-039744
Date Completed 7-15-66
Document No. 50000031

BRIDGE DEPARTMENT DESIGN SECTION 9	
Section Supervisor	G.D. Gilbert
DESIGN	By L L Stitt 3-62
	Checked E. Evans 5/62
DETAILS	By T. Jensen 5/62
	Checked E. Evans 5/62
QUANTITIES	By J.P. Jones 6/62
	Checked T T Suyetsugu

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

SHEET 2 OF 11

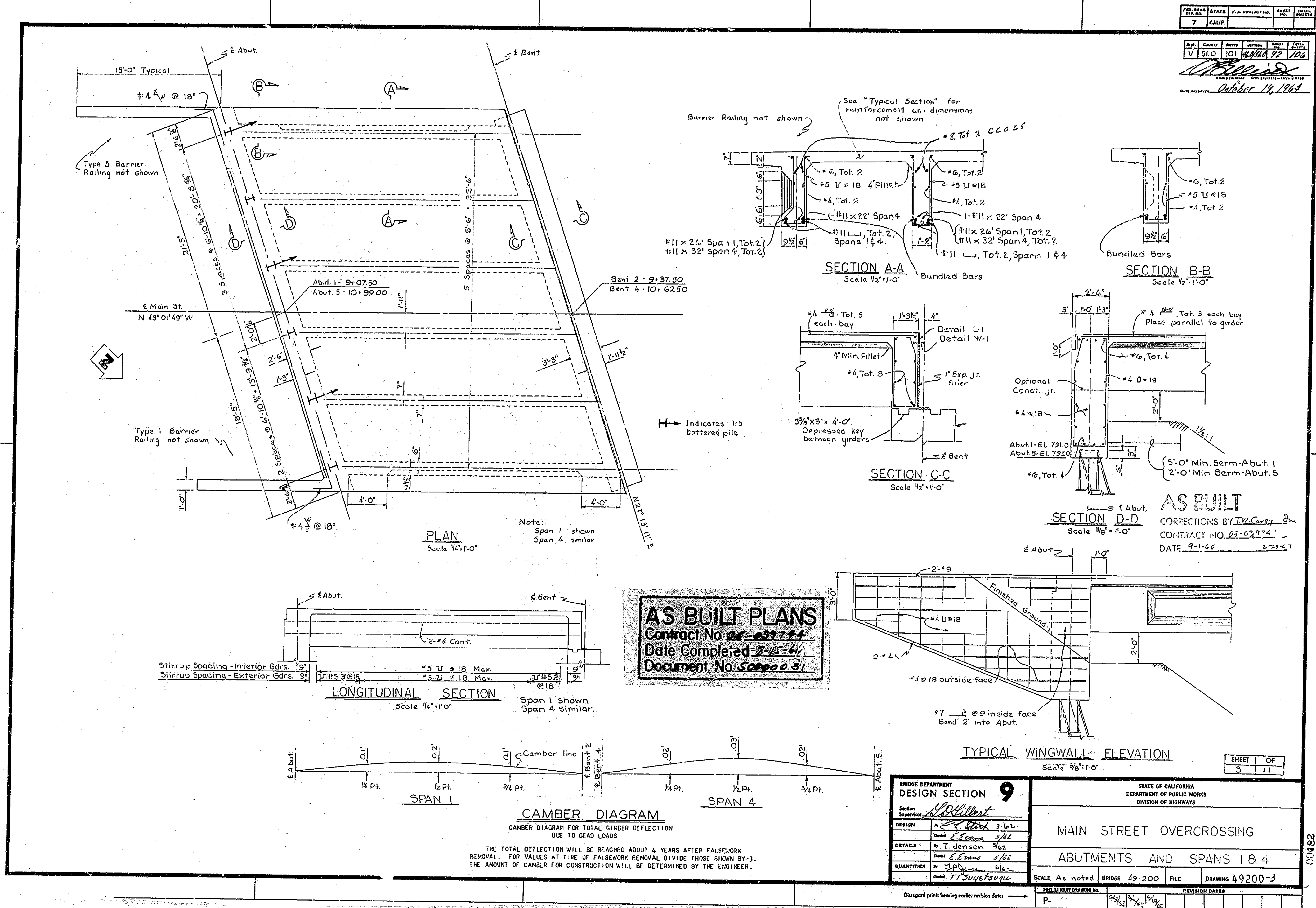
MAIN STREET OVERCROSSING

FOUNDATION PLAN

Except as noted SCALE 1" = 20' | BRIDGE 49-200 | FILE | DRAWING 49200-2

PREL. DRAWING NO. P-

00481



PLAN
Scale 1/4"=1'-0"
Note: Span 1 shown Span 4 similar
Type 5 Barrier Railing not shown
Type 1 Barrier Railing not shown
15'-0" Typical
℄ Abut.
℄ Bent
℄ Main St.
N 43°01'49" W
Abut. 1 - 9+07.50
Abut. 5 - 10+99.00
Bent 2 - 9+37.50
Bent 4 - 10+62.50
Indicates 1:3 battered pile
SECTION A-A
Scale 1/2"=1'-0"
See "Typical Section" for reinforcement and dimensions not shown
Barrier Railing not shown
Bundled Bars
SECTION B-B
Scale 1/2"=1'-0"
SECTION C-C
Scale 1/2"=1'-0"
Detail L-1
Detail W-1
1" Exp. Jt. Filler
Depressed key between girders
SECTION D-D
Scale 3/8"=1'-0"
Optional Const. Jt.
Abut.1-El. 791.0
Abut.5-El. 793.0
5'-0" Min. Berm-Abut. 1
2'-0" Min Berm-Abut. 5
AS BUILT
CORRECTIONS BY T.W. Carey
CONTRACT NO. 05-0377-4
DATE 9-1-66 2-23-67
LONGITUDINAL SECTION
Scale 1/4"=1'-0"
Stirrup Spacing - Interior Gdrs.
Stirrup Spacing - Exterior Gdrs.
Span 1 Shown. Span 4 similar.
AS BUILT PLANS
Contract No. 05-039744
Date Completed 2-15-66
Document No. 50000031
TYPICAL WINGWALL ELEVATION
Scale 3/8"=1'-0"
Finished Ground
CAMBER DIAGRAM
CAMBER DIAGRAM FOR TOTAL GIRDER DEFLECTION DUE TO DEAD LOADS
THE TOTAL DEFLECTION WILL BE REACHED ABOUT 4 YEARS AFTER FALSEWORK REMOVAL. FOR VALUES AT TIME OF FALSEWORK REMOVAL DIVIDE THOSE SHOWN BY 3. THE AMOUNT OF CAMBER FOR CONSTRUCTION WILL BE DETERMINED BY THE ENGINEER.
SPAN 1
SPAN 4
Camber line
October 14, 1962
BRIDGE DEPARTMENT
DESIGN SECTION 9
STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS
MAIN STREET OVERCROSSING
ABUTMENTS AND SPANS 1 & 4
SCALE As noted
BRIDGE 49-200
DRAWING 49200-3
SHEET 3 OF 11
Disregard prints bearing earlier revision dates

92

FED. ROAD DIV. NO.	STATE	F. A. PROJECT No.	SHEET NO.	TOTAL SHEETS
7	CALIF.			

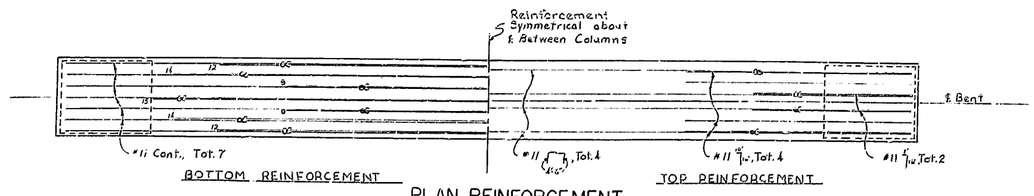
DIST.	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
V	SLO	101	46.0/48.0	93	106

DATE APPROVED October 19, 1967

NOTE: ALL BARS NO. 11 EXCEPT AS NOTED.

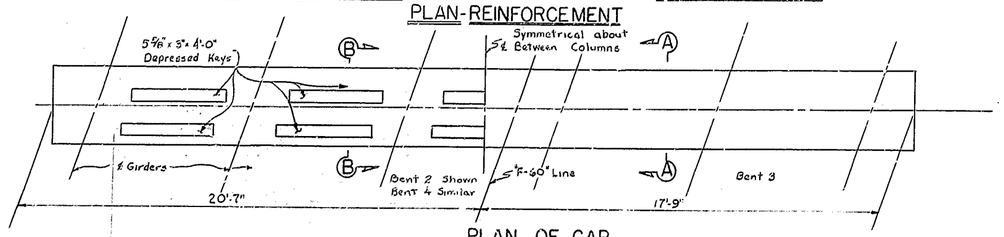
NUMBERS AT ENDS OF BARS INDICATE LENGTH IN FEET FROM ℄ BETWEEN COLUMNS FOR BOTTOM REINFORCEMENT.

DENOTES BUNDLED BARS.

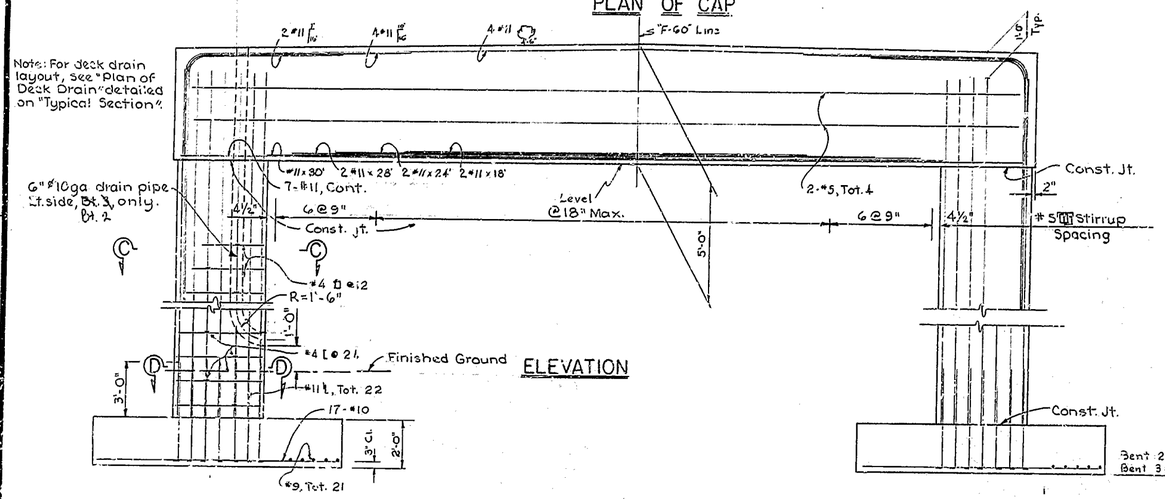


BOTTOM REINFORCEMENT — TOP REINFORCEMENT

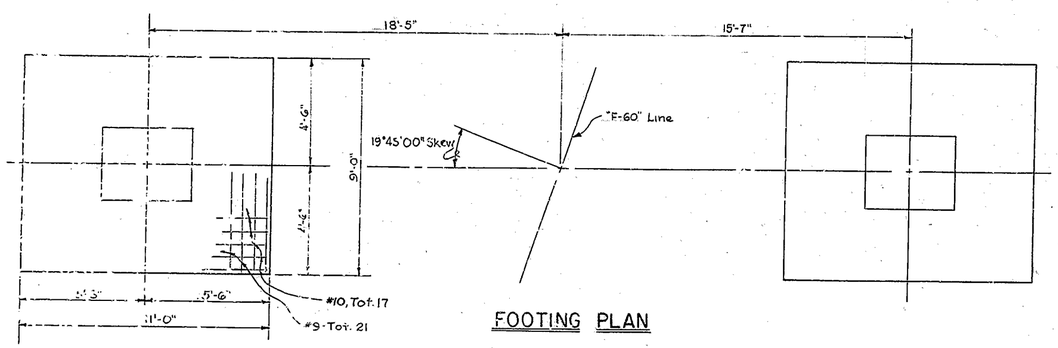
PLAN-REINFORCEMENT



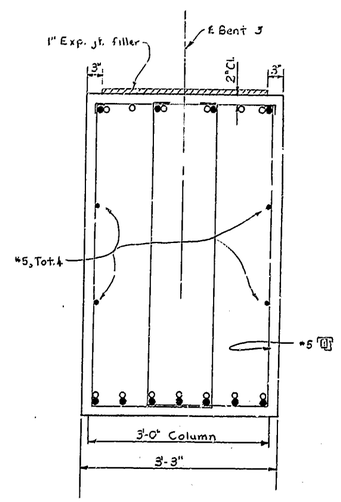
PLAN OF CAP



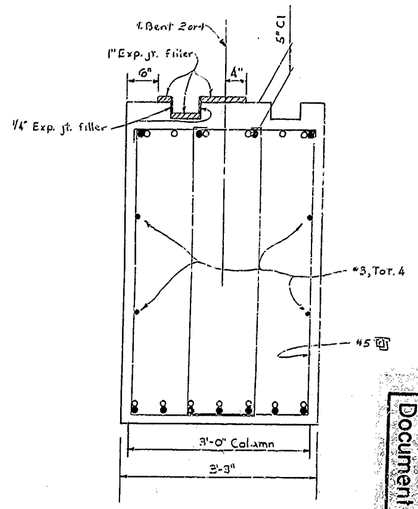
ELEVATION



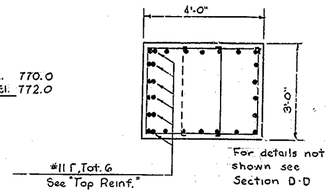
FOOTING PLAN



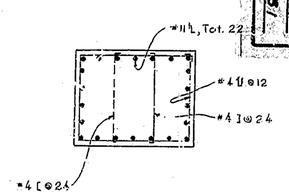
SECTION A-A
Scale: 1" = 1'-0"



SECTION B-B
Scale 1" = 1'-0"



SECTION C-C
Scale: ½" = 1'-0"



SECTION D-D
Scale: ½" = 1'-0"

AS BUILT
CORRECTIONS BY J.W. Carey Jr.
CONTRACT NO. 05-039744
DATE 9-1-66 2-23-67

AS BUILT PLANS
Contract No. 05-039744
Date Completed 7-5-66
Document No. 5000091

SHEET 4 OF 11

BRIDGE DEPARTMENT
DESIGN SECTION 9
Section Supervisor L.D. Gilbert

DESIGN	By	S. Stark 4-62
	Checked	E. Evans 5/62
DETAILS	By	T. Jensen 5/62
	Checked	E. Evans 5/62
QUANTITIES	By	J.P. Jensen 6/62
	Checker	T.T. Suyetsugu

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

MAIN STREET OVERCROSSING

BENTS

Except as noted SCALE 3/8" = 1'-0" | BRIDGE 49-200 | FILE | DRAWING 49200-4

Disregard prints bearing earlier revision dates →

PRELIMINARY DRAWING No.	REVISION DATES						
P-	4/62	6/7/62	5/24/62	10/5/64			

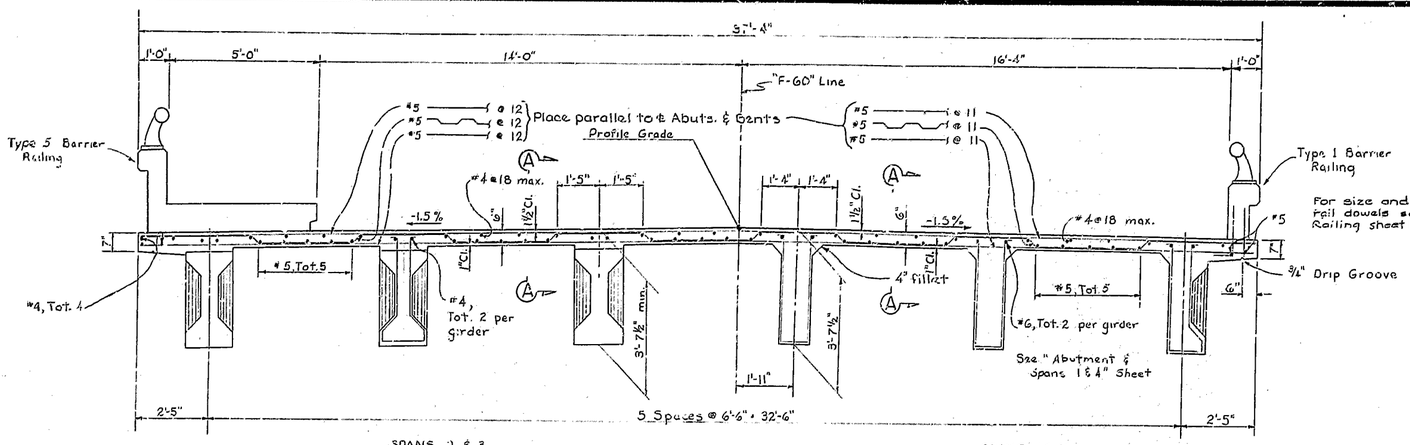
93

FED. ROAD DIV. NO.	STATE	F. A. PROJECT NO.	SHEET NO.	TOTAL SHEETS
7	CALIF.			

DIST.	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
V	SLO	101	46.4/46.6	94	106

BRIDGE ENGINEER — CIVIL ENGINEER—LAYOUT DESK

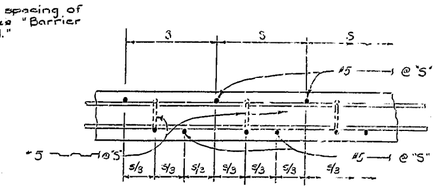
DATE APPROVED October 13, 1964



Note: Should Contractor elect to omit end blocks from prestressed girders Spans 2 & 3, the end blocks shall also be omitted on exterior girders of Spans 1 & 4.

TYPICAL SECTION
Scale: ½" = 1'-0"

For size and spacing of rail dowels see "Barrier Railing Sheet 1."

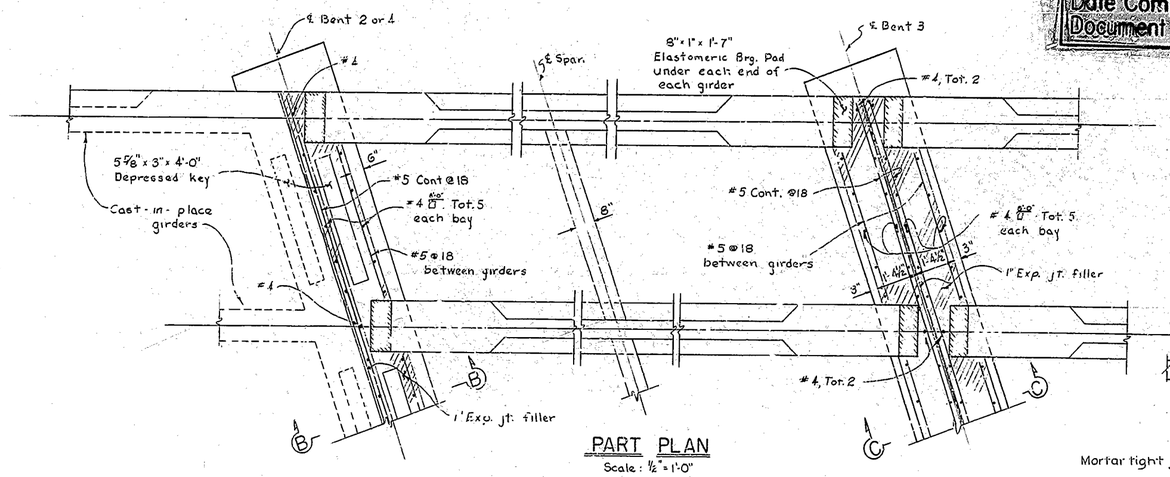


"S" = Spacing = 11" Spans 1 & 4
= 12" Spans 2 & 3

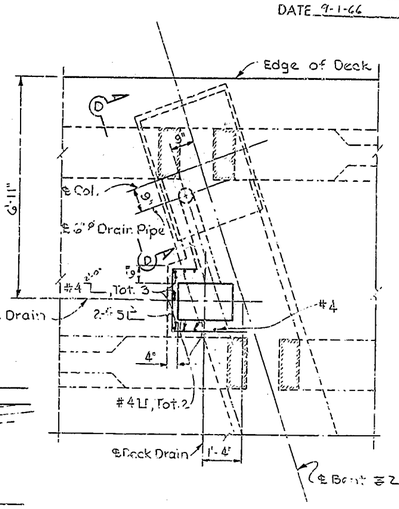
SECTION A-A
Scale: 1½" = 1'-0"

AS BUILT
CORRECTIONS BY T.W. Carey
CONTRACT NO. 05-039744
DATE 9-1-66 2-22-67

AS BUILT PLANS
Contract No. 05-039744
Date Completed 7-15-66
Document No. 500000 81

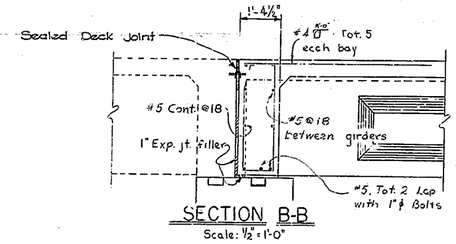


PART PLAN
Scale: ½" = 1'-0"

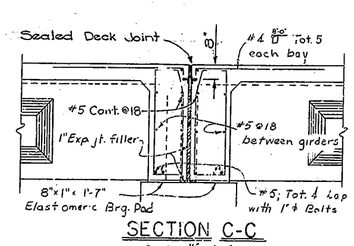


PLAN OF DECK DRAIN
Scale: ½" = 1'-0"

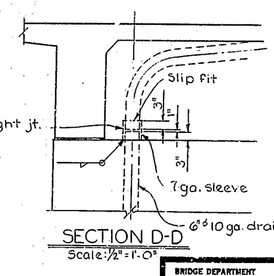
Note: Concrete to be placed to a minimum of 4" below bottom of drain assembly.



SECTION B-B
Scale: ½" = 1'-0"



SECTION C-C
Scale: ½" = 1'-0"



SECTION D-D
Scale: ½" = 1'-0"

BRIDGE DEPARTMENT		
DESIGN SECTION 9		
Section Supervisor G.D. Elliott		
DESIGN	By LL STITT 4-62	
	Checked E. Evans 5/62	
DETAILS	By T. Jensen 5/62	
	Checked E. Evans 5/62	
QUANTITIES	By TT Sugatsugu	
	Checked JPB 6/62	

Disregard prints bearing earlier revision dates →

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

MAIN STREET OVERCROSSING

TYPICAL SECTION

SCALE As noted	BRIDGE 49-200	FILE	DRAWING 49200-5

PRELIMINARY DRAWING No.	REVISION DATES
P-	

SHEET	OF
5	11

00484

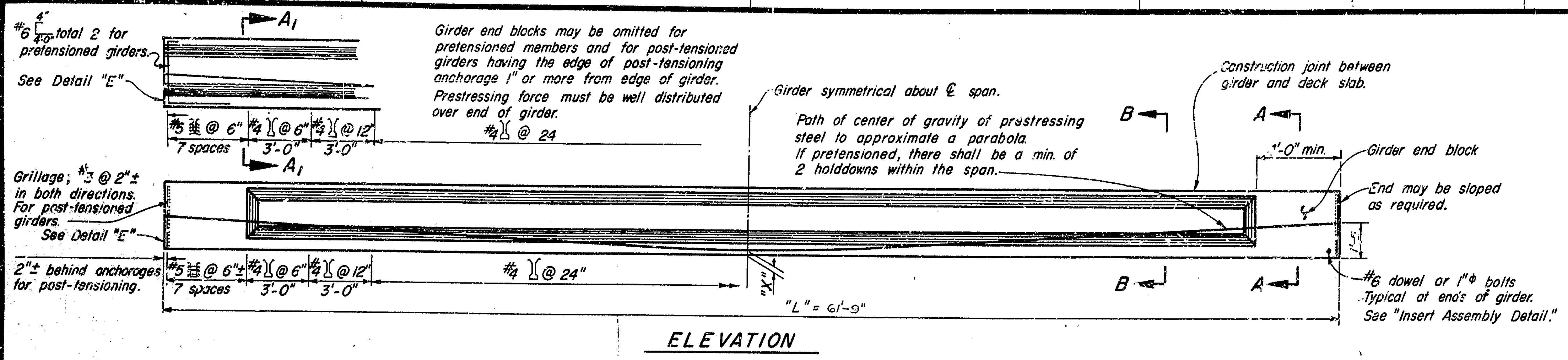
94

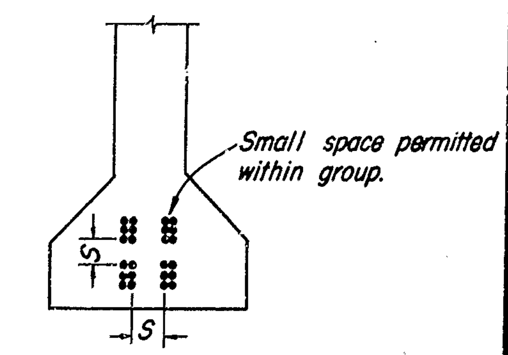
Added Detail to upper right Side of Sheet. Added Note below Sec A1-A1, Sec A-A + Sec. B-B. Added #4 bar to Sec A1-A1. Deleted hooks from bar in Sec. A1-A1, Rev. Title Block. JTJ 12-18-63

Deleted note in "Bearing Plate" detail. 5/64 JTJ

DIST	COUNTY	ROUTE	SECTION	SHEET No.	TOTAL SHEETS
V	SLO	101	46.0/56.0	95	106

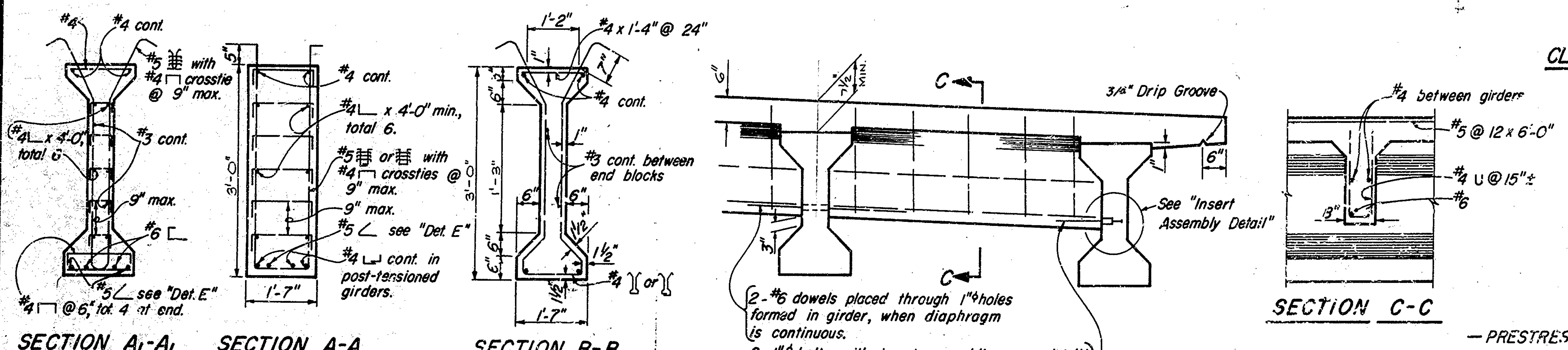
Date Approved October 19, 1964





CLEARANCES FOR PRE-TENSIONING STRANDS

1. Strands may be bundled in groups consisting of 3 vertically and 2 horizontally, and separated at the ends.
2. The minimum distance "S" between groups or individual strands is 1½" for 3/8" strands, 1¾" for 7/16" strands and 2" for ½" strands.
3. "S" is measured between centers of adjacent strands.
4. Approval of the Engineer is required for deviation.



Details shown are for pretensioning without end block and post-tensioning with end block.

For other combinations, details are subject to approval of the Engineer.

AS BUILT
No CORRECTIONS BY T.W. Carey
CONTRACT NO. 05-039744
DATE 9-1-66 2-23-67

— PRESTRESSING NOTES —

Working Force (The force per girder remaining after all losses, including those due to creep and shrinkage of concrete and creep of steel have occurred) is as follows:

for x = 3" P_f = 473,000 lbs.
for x = 4" P_f = 495,000 lbs.
for x = 5" P_f = 518,000 lbs.

The loss in stress in pretensioning steel due to shrinkage and creep shall be assumed to be 35,000 p.s.i.

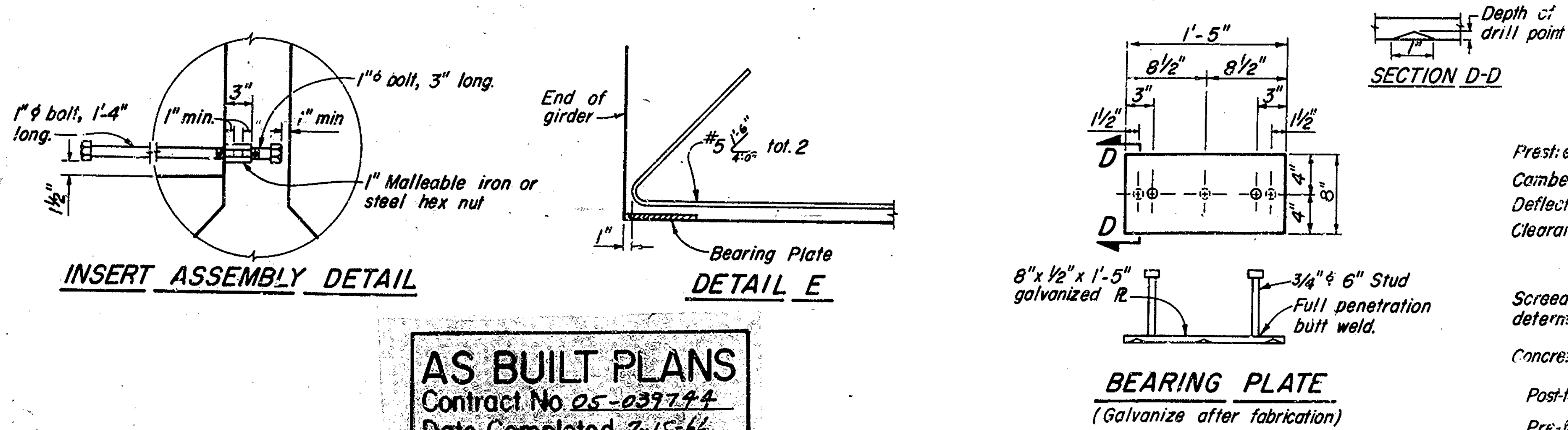
The loss in stress in the post-tensioned prestressing steel due to shrinkage and creep and sequence stressing shall be assumed to be 25,000 p.s.i.

In addition to the loss noted above, provision shall be made for losses due to friction, anchorage takeup, and any other losses peculiar to the system of prestressing used.

Prestressing Steel: See Special Provisions.
Camber: Girder soffit to be cast straight
Deflection @ ℄ Span due to Cast-In-Place Slab = 1"
Clearances for Post-Tensioned units: 1. Horizontal clearance between units = 2½" min.
2. Units may be bundled vertically in groups of 3 max.
3. Vertical clearance between bundled units = 3" min.

Screed lines for construction will be determined by the Engineer.

Concrete:	f'_c @ time of stressing;	f'_c @ 28 days
Post-tensioned:	5000 PSI.	5000 PSI.
Pre-tensioned:	5000 PSI.	5000 PSI.



STANDARD DRAWING
Selected by R.C. Blake 9/63
DESIGN By W.J.J. 9/63 Checked R.C.B. 9/63
DETAILS By W.J.J. 9/63 Checked R.C.B. 9/63
Approved Recommended by 5-4-??

95

NOTE: GIRDERS TO BE PLACED NORMAL TO CROSSFALL.

5/64

STATE OF CALIFORNIA
HIGHWAY TRANSPORTATION AGENCY
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

File XS-12-36

MAIN STREET OVERCROSSING

PRESTRESSED "I" GIRDER

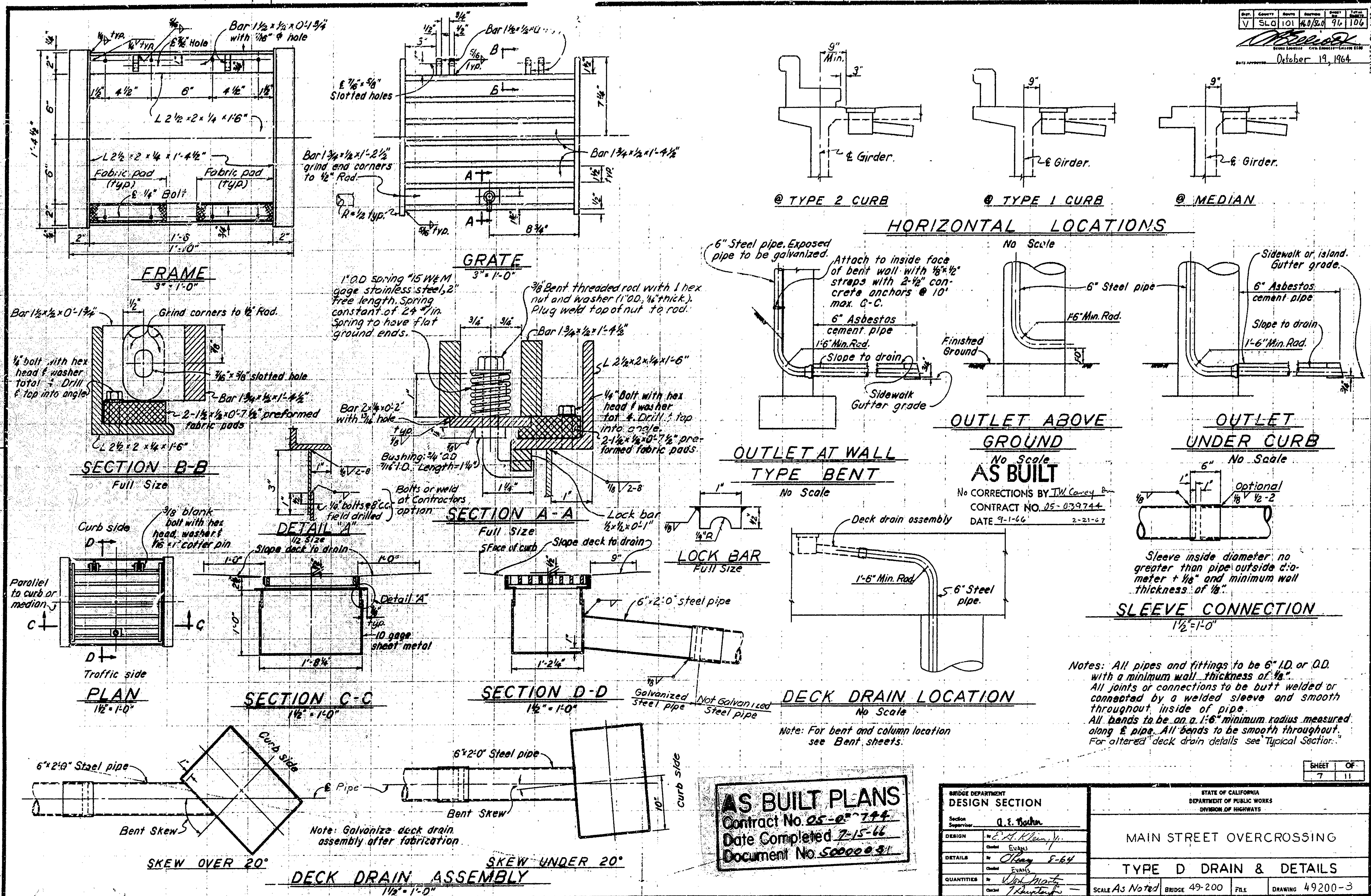
BRIDGE NO. 49-200 DRAWING NO. 49200-6 SHEET 6 OF 11

00485

WO

Disregard prints bearing earlier revision dates

REVISION DATES (PRELIMINARY STAGE ONLY)



BRIDGE DEPARTMENT DESIGN SECTION

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

MAIN STREET OVERCROSSING

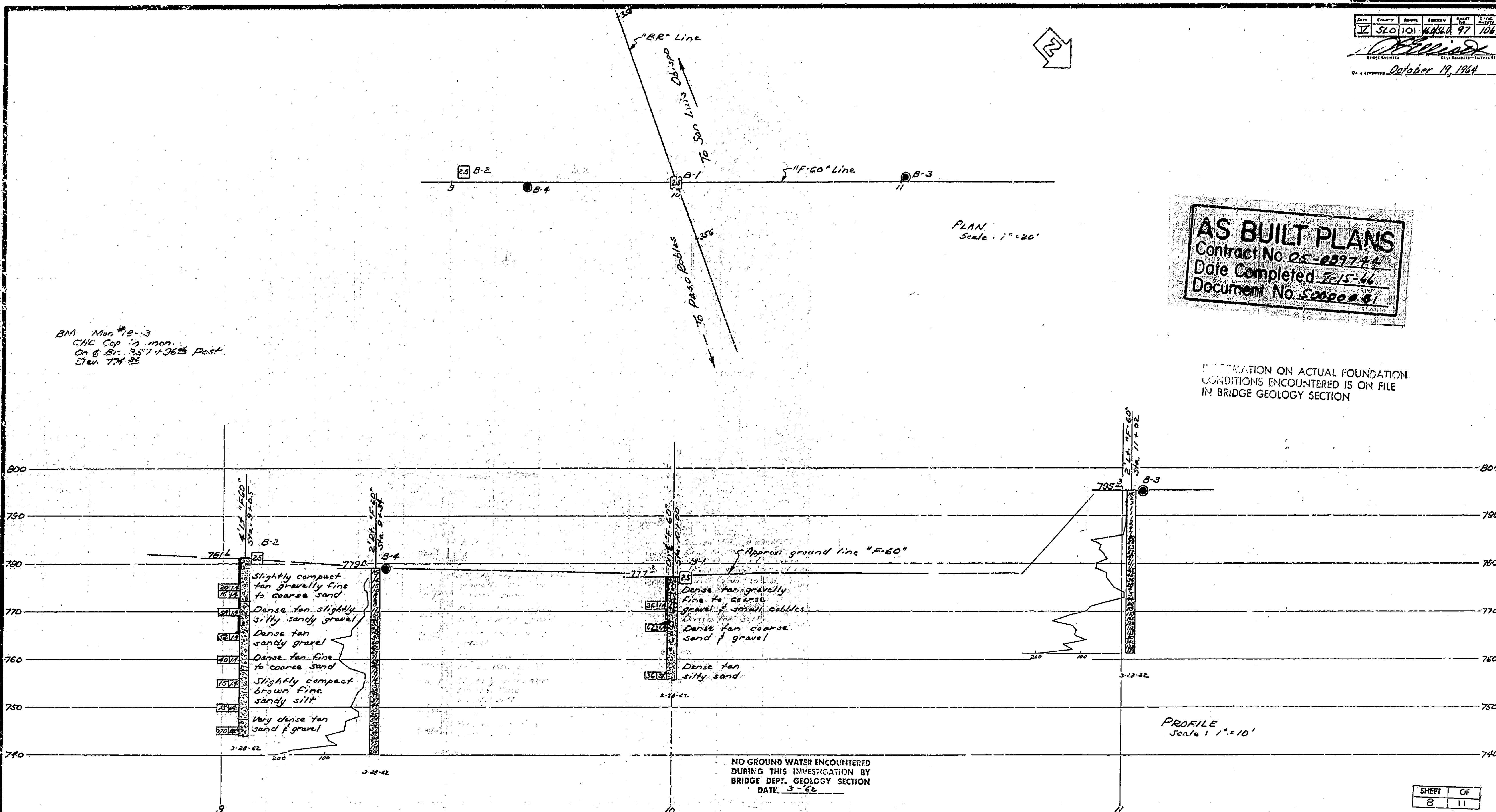
TYPE D DRAIN & DETAILS

SCALE As Noted | BRIDGE 49-200 | DRAWING 49200-3

SHEET 7 OF 11

V SLO 101 | 96 | 106

October 19, 1964



SHEET	OF
8	11

CLASSIFICATION OF MATERIAL BASED ON STANDARD GRADE SIZE LIMITS

DIAGRAM SHOWING THE BASIS FOR ESTIMATES OF GRADE SIZE DISTRIBUTION USED IN DETERMINATION OF CLASS NAMES. IF GRAVEL IS PRESENT IN APPRECIABLE AMOUNTS THE TERM "GRAVELLY" MAY BE ADDED TO THE CLASS NAME, VIZ. "GRAVELLY SAND". THE TERMS "COARSE", "MEDIUM" AND "FINE" WHEN USED TO DESCRIBE SAND, SILT AND GRAVEL REFER TO STANDARD GRADE SIZE LIMITS.

LEGEND OF EARTH MATERIALS

Gravel, Sand, Silt, Clay, Sandy Clay or Clayey Sand, Sandy Silt or Silty Sand, Silty Clay or Clayey Silt, Peat and/or Organic Matter, Fill Material, Igneous Rock, Sedimentary Rock, Metamorphic Rock

LEGEND OF BORING OPERATIONS

Penetrometer, 2½" Cone Penetrometer, Sampler Boring (Dry), Rotary Boring (Wet), Auger Boring (Dry), Jet Boring, Core Boring, Test Pit

1" SOIL TUBE — ROTARY BORING — PENETRATION BORING

NOTE

Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

MAIN STREET O.C.

LOG OF TEST BORINGS

SCALE As Noted — BRIDGE 49-200 — DRAWING 49200-7

PREL. DRAWING NO. P-

October 19, 1964

7 CAL.

V SLO 101 97 106

97

Rev. Note in "Type 1 Rlng. Elev." detail. Heavied up decimal points in quantities 8-1-63 JTJ

Delete Signature Block and Fed. Road Block, added Co.-Rte.-Sec. block in upper right hand corner. Rev. Title block in lower right corner. JTJ 8-1-63

Changes in Type 1 Railing Elev., Type 2 & Type 5 Rlng. Elev., Typical Curb & Rail Section (Type 1, 1A, 2, & 2A). 11-19-63 JTJ

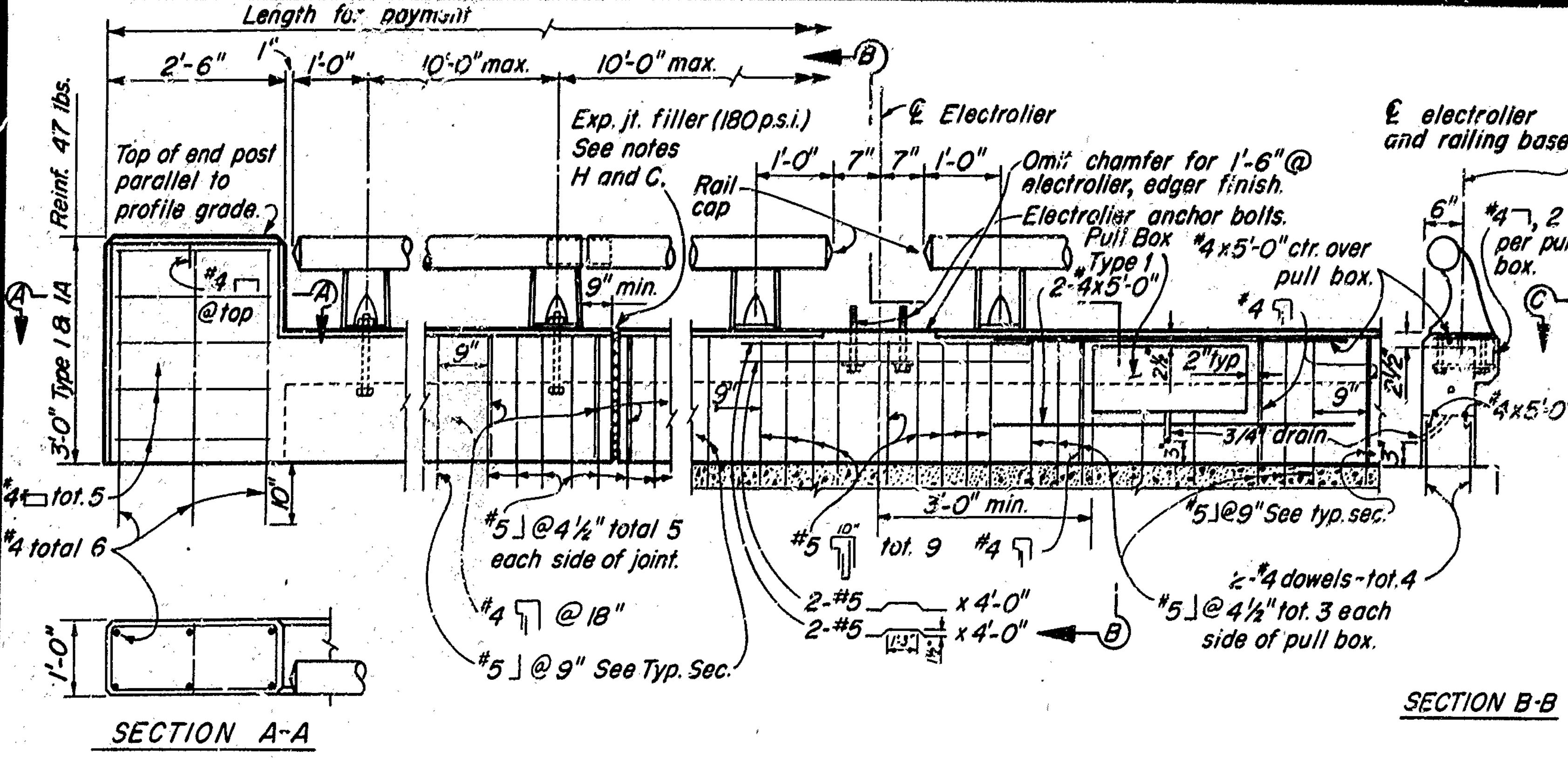
Changed #4 cont. tot. 6 to #5 cont. tot. 5 in Type 1 Detail JTJ 12-12-63

Added "Except as Noted" to dim. in "Type 5 Railing" 12-16-63 JTJ

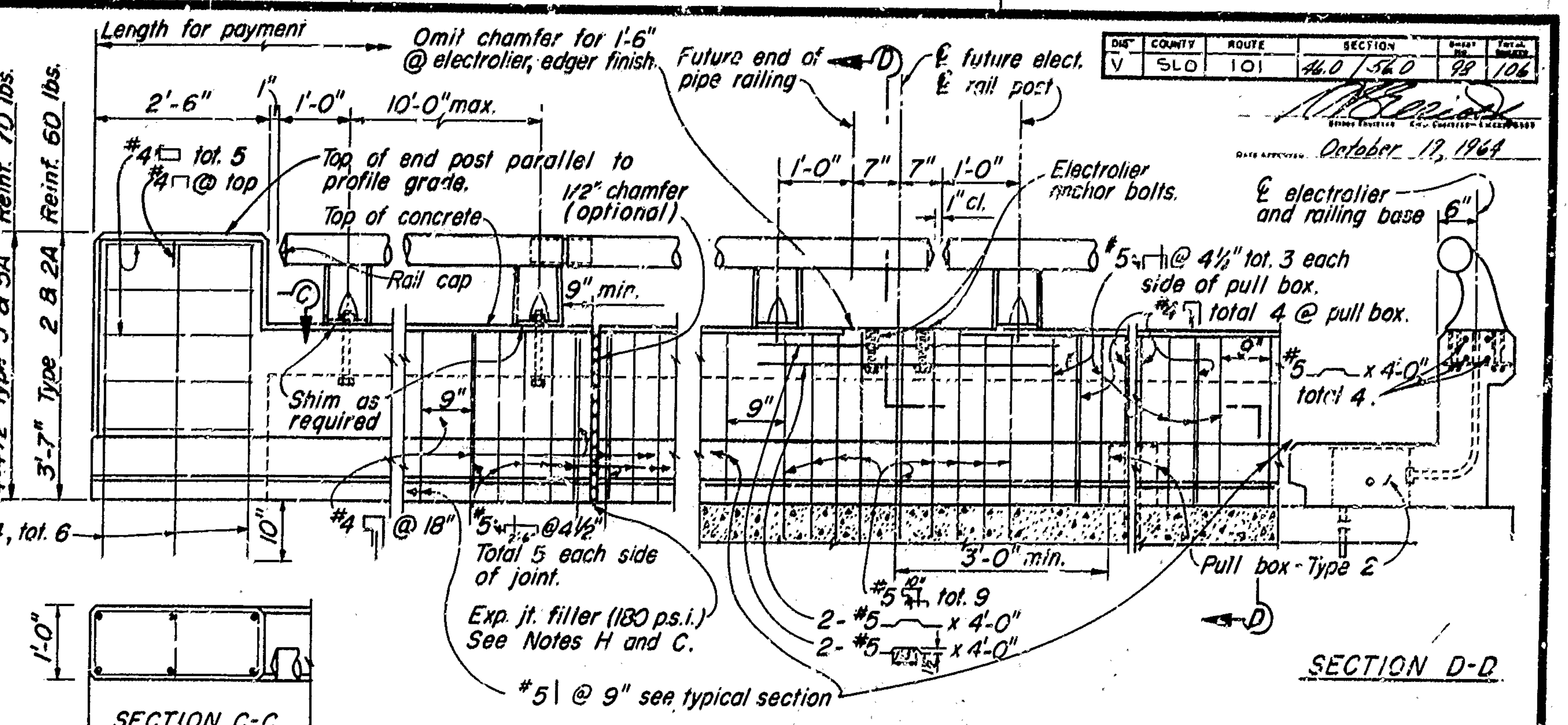
Added #4 cont. bars to Type 1 Rlng. & deleted tot. 5 of #5 cont. JTJ 1-5-63

DIST	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
V	SLO	101	46.0 / 56.0	98	106

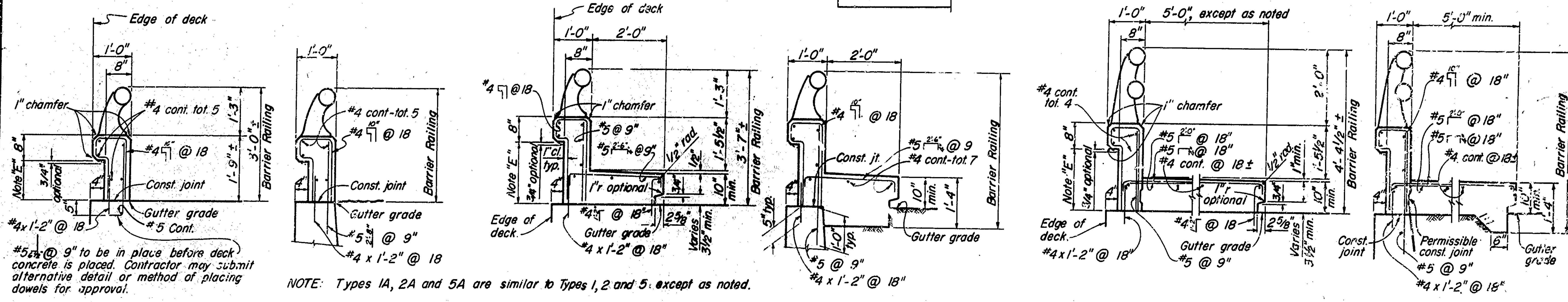
Date approved October 12, 1964



TYPE 1 RAILING ELEVATION



TYPES 2 & 5 RAILING ELEVATION



NOTE: Types 1A, 2A and 5A are similar to Types 1, 2 and 5 except as noted.

TYPE 1
Conc. 1.39 cu. ft./lin. ft.
Reinf. 10.1 lbs/lin. ft.

TYPE 1A
Conc. 1.39 cu. ft./lin. ft.
Reinf. 9.5 lbs./lin. ft.

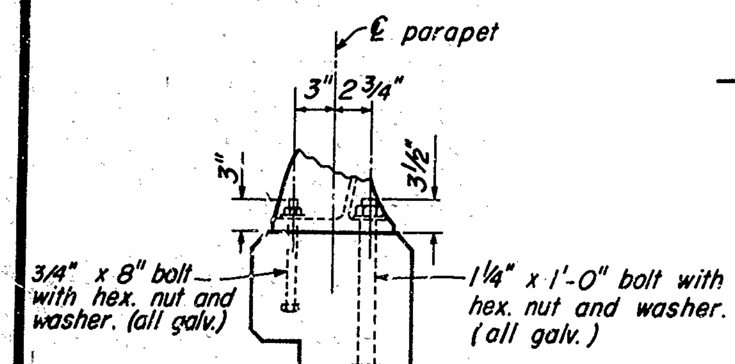
TYPE 2
Conc. 3.43 cu. ft./lin. ft.
Reinf. 15.8 lbs./lin. ft.

TYPE 2A
Conc. 4.30 cu. ft./lin. ft.
Reinf. 16.6 lbs./lin. ft.

TYPE 5
Conc. 6.13 cu. ft./lin. ft.
Reinf. 18.7 lbs./lin. ft.
For 5'-0" width and 1½% deck cross slope.

TYPE 5A
Conc. 6.51 cu. ft./lin. ft.
Reinf. 19.5 lbs./lin. ft.

TYPICAL CURB AND RAIL SECTIONS



RAIL POST ANCHOR BOLT DETAILS

Scale: 1½" = 1'-0"

NOTES

A. Railing shall conform to theoretical horizontal and vertical alignment.

B. Posts shall be normal to railing.

C. Curb and wall joints to be located at all deck joints, at ℄ piers or bents and at uniform spacing (40' max.). Joint size to be 1/2" min. and increased to match width of actual deck opening.

D. Construct 3" deep x 12" wide overflow scupper 2" above deck at low points in grade.

E. Dimension will vary with cross-slope of deck.

F. Walls are to be backfilled before railing is placed.

G. Clearance to reinforcing steel in curb and railing to be 1". Longitudinal reinforcement to stop at all joints in railing.

H. As an alternative an open joint may be used in Type 1 and Type 2 railings.

AS BUILT PLANS
Contract No. 05-039744
Date Completed 2-15-66
Document No. [illegible]

AS BUILT
No CORRECTIONS BY T. W. Carey
CONTRACT NO. 05-039744
DATE 9-1-66 2-23-67

STANDARD DRAWING
DESIGN RPH 6/63
DETAIL RPH 6/63

12/63
STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS
File XS-9-63

MAIN STREET OVERCROSSING

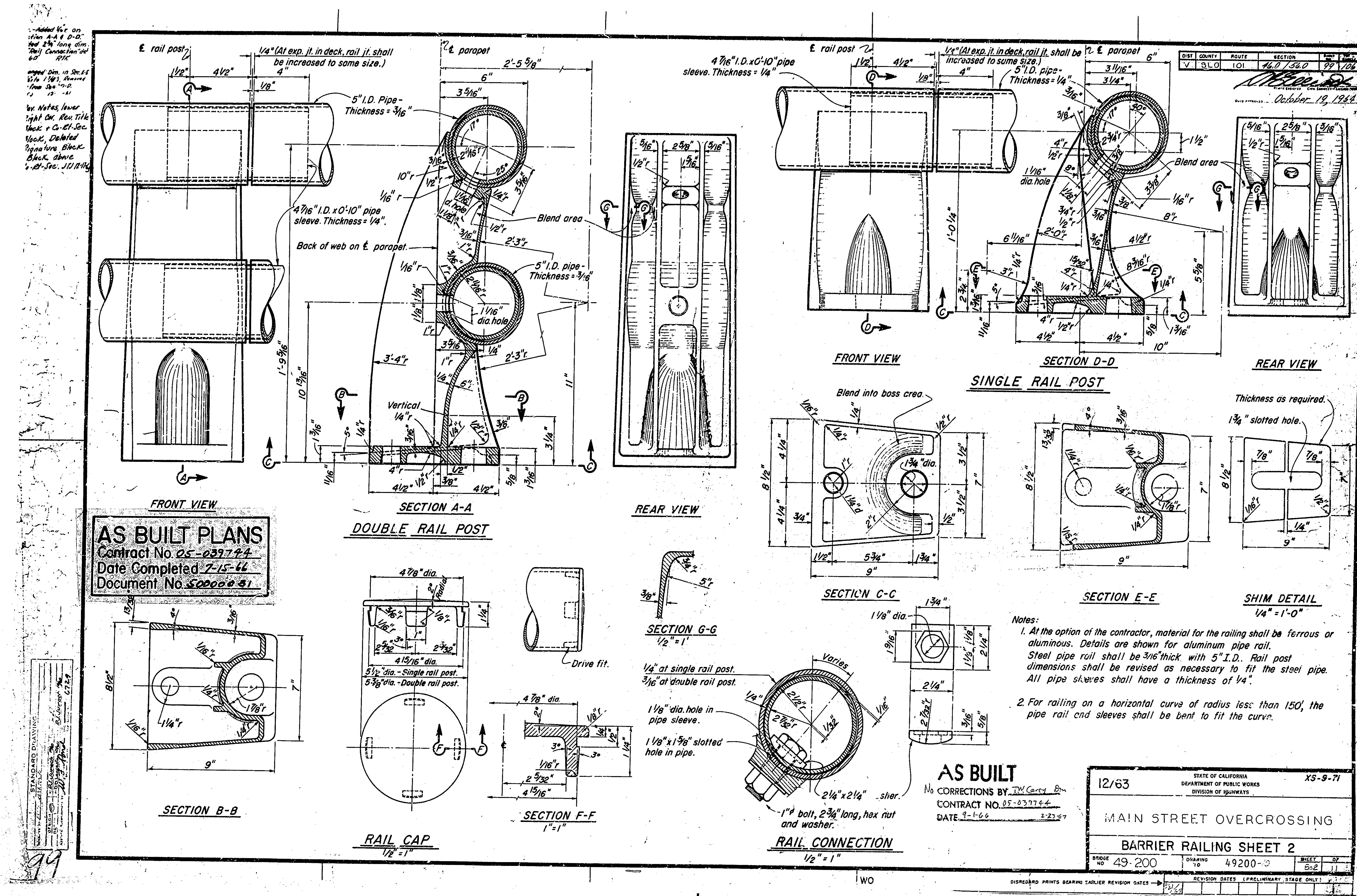
BARRIER RAILING SHEET 1

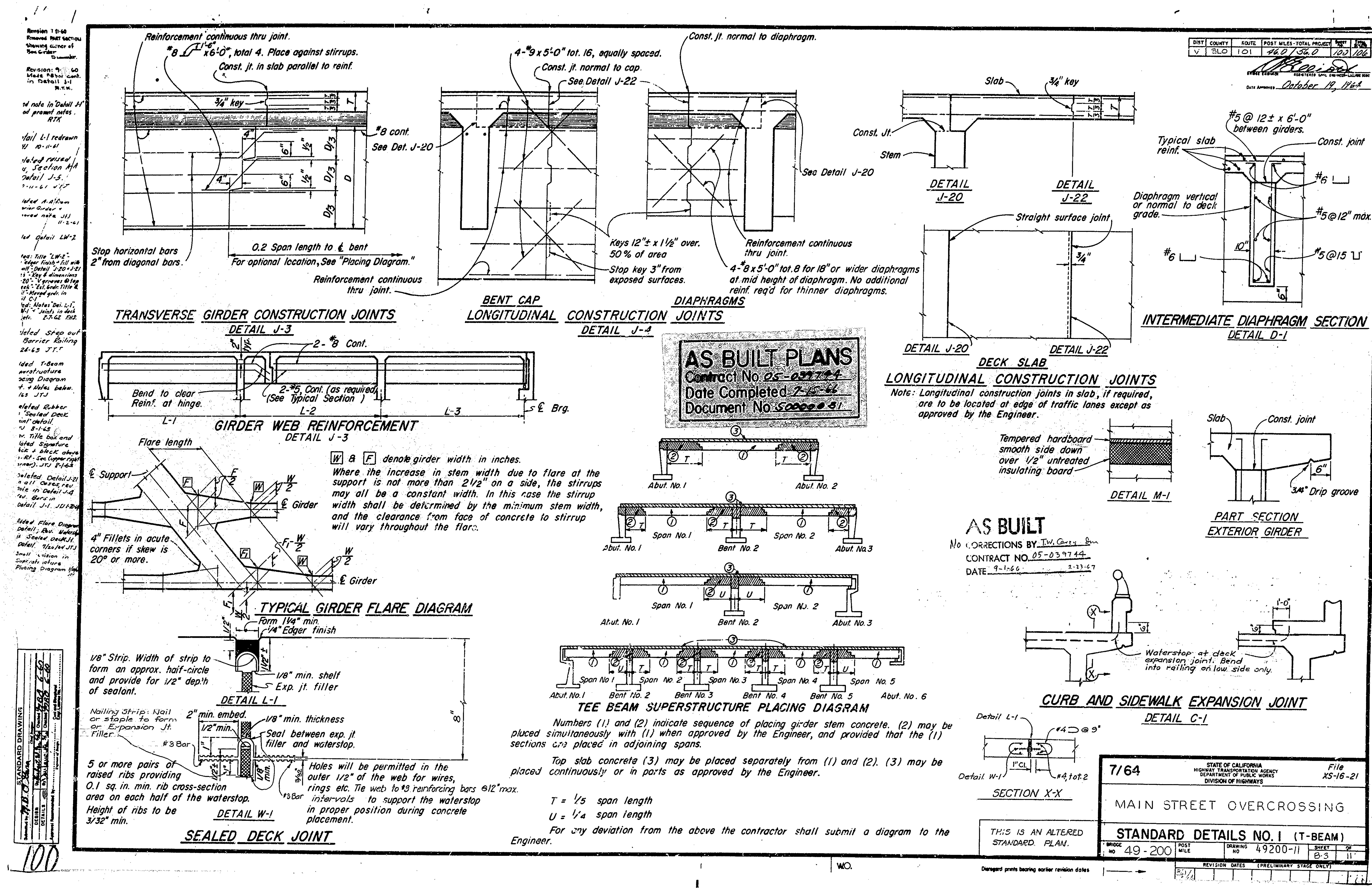
BRIDGE NO. 49-200 | DRAWING NO. 49200-9 | SHEET B-1

W.O.

Standard prints bearing earlier revision dates → REVISION DATES (PRELIMINARY STAGE ONLY)

98


FRONT VIEW
SECTION A-A
DOUBLE RAIL POST
REAR VIEW
FRONT VIEW
SECTION D-D
SINGLE RAIL POST
REAR VIEW
5" I.D. Pipe - Thickness = 3/16"
4 7/16" I.D. x 0'-10" pipe sleeve. Thickness = 1/4".
Back of web on ℄ parapet.
Blend area
1/4" (At exp. jt. in deck, rail jt. shall be increased to same size.)
℄ rail post
℄ parapet
Blend into boss area.
Thickness as required.
1 3/4" slotted hole.
SECTION C-C
SECTION E-E
SHIM DETAIL
1/4" = 1'-0"
SECTION G-G
1/2" = 1'
SECTION B-B
RAIL CAP
1/2" = 1"
5 1/2" dia. - Single rail post.
5 3/8" dia. - Double rail post.
Drive fit.
SECTION F-F
1" = 1"
1/4" at single rail post.
3/16" at double rail post.
1 1/8" dia. hole in pipe sleeve.
1 1/8" x 1 5/8" slotted hole in pipe.
1" ϕ bolt, 2 3/4" long, hex nut and washer.
RAIL CONNECTION
1/2" = 1"
Notes:
1. At the option of the contractor, material for the railing shall be ferrous or aluminous. Details are shown for aluminum pipe rail. Steel pipe rail shall be 3/16" thick with 5" I.D. Rail post dimensions shall be revised as necessary to fit the steel pipe. All pipe sleeves shall have a thickness of 1/4".
2. For railing on a horizontal curve of radius less than 150', the pipe rail and sleeves shall be bent to fit the curve.
AS BUILT PLANS
Contract No. 05-039744
Date Completed 7-15-66
Document No. S0000051
AS BUILT
CORRECTIONS BY T.W. Carey
CONTRACT NO. 05-039744
DATE 9-1-66
12/63
STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS
XS-9-71
MAIN STREET OVERCROSSING
BARRIER RAILING SHEET 2
BRIDGE NO 49-200
DRAWING NO 49200-
V | SLO | 101 | 46.0/56.0
October 19, 1964
STANDARD DRAWING
DISREGARD PRINTS BEARING EARLIER REVISION DATES
REVISION DATES (PRELIMINARY STAGE ONLY)



Reinforcement continuous thru joint.
#8 1'-6" x 6'-0", total 4. Place against stirrups.
Const. jt. in slab parallel to reinf.
3/4" key
#8 cont.
See Det. J-20
Stop horizontal bars 2" from diagonal bars.
0.2 Span length to ℄ bent
For optional location, See "Placing Diagram."
TRANSVERSE GIRDER CONSTRUCTION JOINTS
DETAIL J-3
4-#9 x 5'-0" tot. 16, equally spaced.
Const. jt. normal to cap.
See Detail J-22
Const. jt. normal to diaphragm.
See Detail J-20
Keys 12"± x 1 1/2" over. 50 % of area
Stop key 3" from exposed surfaces.
Reinforcement continuous thru joint.
4-#8 x 5'-0" tot. 8 for 18" or wider diaphragms at mid height of diaphragm. No additional reinf. req'd for thinner diaphragms.
Reinforcement continuous thru joint.
BENT CAP
DIAPHRAGMS
LONGITUDINAL CONSTRUCTION JOINTS
DETAIL J-4
Slab
3/4" key
Const. Jt.
Stem
DETAIL J-20
DETAIL J-22
Straight surface joint
DETAIL J-20
DETAIL J-22
DECK SLAB
LONGITUDINAL CONSTRUCTION JOINTS
Note: Longitudinal construction joints in slab, if required, are to be located at edge of traffic lanes except as approved by the Engineer.
#5 @ 12± x 6'-0" between girders.
Typical slab reinf.
Const. joint
Diaphragm vertical or normal to deck grade.
#6
#5 @ 12" max.
#5 @ 15
INTERMEDIATE DIAPHRAGM SECTION
DETAIL D-1
2-#8 Cont.
Bend to clear Reinf. at hinge.
2-#5 Cont. (as required) (See Typical Section)
L-1
L-2
L-3
℄ Brg.
GIRDER WEB REINFORCEMENT
DETAIL J-3
AS BUILT PLANS
Contract No 05-039744
Date Completed 7-15-66
Document No S0000031
Flare length
℄ Support
℄ Girder
4" Fillets in acute corners if skew is 20° or more.
℄ Girder
TYPICAL GIRDER FLARE DIAGRAM
W & F denote girder width in inches.
Where the increase in stem width due to flare at the support is not more than 2 1/2" on a side, the stirrups may all be a constant width. In this case the stirrup width shall be determined by the minimum stem width, and the clearance from face of concrete to stirrup will vary throughout the flare.
Abut. No. 1
Abut. No. 2
Span No. 1
Span No. 2
Bent No. 2
Abut. No. 3
Span No. 3
Span No. 4
Span No. 5
Bent No. 3
Bent No. 4
Bent No. 5
Abut. No. 6
TEE BEAM SUPERSTRUCTURE PLACING DIAGRAM
Numbers (1) and (2) indicate sequence of placing girder stem concrete. (2) may be placed simultaneously with (1) when approved by the Engineer, and provided that the (1) sections are placed in adjoining spans.
Top slab concrete (3) may be placed separately from (1) and (2). (3) may be placed continuously or in parts as approved by the Engineer.
T = 1/5 span length
U = 1/4 span length
For any deviation from the above the contractor shall submit a diagram to the Engineer.
Form 1 1/4" min.
1/4" Edger finish
1/8" Strip. Width of strip to form an approx. half-circle and provide for 1/2" depth of sealant.
1/8" min. shelf
Exp. jt. filler
DETAIL L-1
Nailing Strip: Nail or staple to form or Expansion Jt. Filler.
2" min. embed.
1/2" min.
1/8" min. thickness
Seal between exp. jt filler and waterstop.
#3 Bar
5 or more pairs of raised ribs providing 0.1 sq. in. min. rib cross-section area on each half of the waterstop.
Height of ribs to be 3/32" min.
DETAIL W-1
Holes will be permitted in the outer 1/2" of the web for wires, rings etc. Tie web to #3 reinforcing bars @12" max. intervals to support the waterstop in proper position during concrete placement.
SEALED DECK JOINT
Tempered hardboard smooth side down over 1/2" untreated insulating board
DETAIL M-1
Slab
Const. joint
6"
3/4" Drip groove
PART SECTION EXTERIOR GIRDER
AS BUILT
No CORRECTIONS BY T.W. Carey
CONTRACT NO. 05-039744
DATE 9-1-66
Waterstop at deck expansion joint. Bend into railing on low side only.
CURB AND SIDEWALK EXPANSION JOINT
DETAIL C-1
Detail L-1
#4 @ 9"
Detail W-1
#4 tot. 2
SECTION X-X
THIS IS AN ALTERED STANDARD PLAN.
DIST V | COUNTY SLO | ROUTE 101 | POST MILES 46.0/56.0
Date Approved October 19, 1964
7/64
STATE OF CALIFORNIA
HIGHWAY TRANSPORTATION AGENCY
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS
File XS-16-21
MAIN STREET OVERCROSSING
STANDARD DETAILS NO. 1 (T-BEAM)
BRIDGE NO 49-200
DRAWING NO 49200-11
SHEET B-3
STANDARD DRAWING
Disregard prints bearing earlier revision dates
REVISION DATES (PRELIMINARY STAGE ONLY)

ATTACHMENT O

PID DOC DISTRIBUTION

Division / Program / Office	Project Type	D5
~~FHWA~~	~~Designated high profile projects only. Refer to Stewardship Agreement~~	~~Dominic Hoang~~
~~HQ Division of Design~~	~~All Projects~~	~~Design Report Routing (12/7/2005)~~
~~HQ Program Advisor~~	~~SHOPP~~	~~HQ Program Advisor gets one copy but do not duplicate other Advisors listed below. For Program Advisors not listed, refer to http://crweb/pjd/docs/CR_SHOPP_Program_Advisors.xlsx~~
HQ Division of Engineering Serv	All Projects	Division of Engineering Services
~~HQ Transportation Programming~~	~~STIP~~	~~Kurt Scherzinger~~
	~~SHOPP~~	~~Donna Berry~~
HQ Environmental	All Projects	Kirsten Helton
~~HQ Maintenance~~	~~HA22~~	~~Rupinder Dosanjh~~
	~~HA21~~	~~Diana Campbell~~
	~~HA42, HA23~~	~~Donald Emukpoeruo~~
	~~STIP~~	~~Patti-jo Dickinson~~
~~HQ Traffic Operations~~	~~HB4N, HB4C~~	~~Matthew Friedman~~
~~HQ Traffic Ops/Traffic Safety Pgm~~	~~HB1~~	~~Abdelraham Beshair~~
~~HQ Traffic Ops/Traffic Safety Pgm~~	~~HB711~~	~~Elizabeth Dooher~~
~~HQ SHOPP Program Advisor~~	~~For other prog~~	~~HQ Advisors List (Apr 1, 2016)~~
Project Manager	All Projects	Paul Valadao
Design Manager	All Projects	David Beard
Resident Engineer	All Projects	Wayne Walker
District Maintenance	All Projects	Zeke Dellamas
	~~D6 Eastern Kern~~	
	~~Pavement, Bridge & Culvert~~	~~Kelly Mcclain~~
District Traffic Management	All Projects	Jacques Van Zeventer
~~District Traffic Engineering~~	~~All Projects~~	
District Traffic Safety Branch	201.010 & 201.015	Dario Senor
~~District Traffic Operations Branch~~	~~MON~~	~~Mark Ballentine~~
District Traffic Operations Branch	SLO/SBT	Steve Talbert
~~District Traffic Operations Branch~~	~~SB/SCR~~	
Region Traffic Design (Kings, Tul, Ker)- D6	All Projects	Mohammed Qatami
Region Traffic Design (Mad)- D6	All Projects	
District Highway Operations	All Projects	Sam Toh
Region Materials	All Projects	Ted Mooradian
Region Environmental	All Projects	Catherine Yim

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Division / Program / Office	Project Type	D5
Region Landscape	All Projects	Scott Dowlan
Region Right of Way	All Projects	Marshall Garcia
Distict Planning	All Projects	Garin Schneider
PPM	All Projects	Linda Araujo
District Single Focal Point	All Projects	No Copy
Surveys	~~All Projects~~	
	All Projects	Jeremy Villegas
	~~Mon/SC/SBt~~	~~Stacy Meacham~~
	SB/SLO	Nick Tatarian
HQ DES/OPPM	Proj w/Structures	Andrew T S Tan
District Records	All Projects	Pat Duty (electronic copy only)
CR PJD Support		**Last Revised 04/27/18**

EXTERNAL DISTRIBUTION		
Organization	**Position**	**Name**
SLO County	Transportation Planning Manager	Joshua Roberts
SLO County	Project Manager	Genaro Diaz
SLOCOG	Programming	John Dinunzio