

07 - LA -110 (PM 20.10/20.92)

HB4N

EA 27800K (0700000537)

June / 2012

**PROJECT STUDY REPORT – PROJECT
DEVELOPMENT SUPPORT
(PSR-PDS)**

To

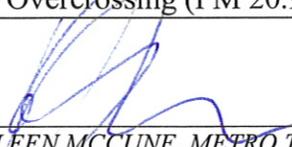
**Request Approval of Locally Funded Project
To proceed
Project Approval and Environmental Document Phase**

At Route N/B I-110

Between 30th Street (PM 20.10)

And Figueroa Street Overcrossing (PM 20.92)

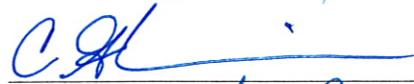
SUBMITTED BY:

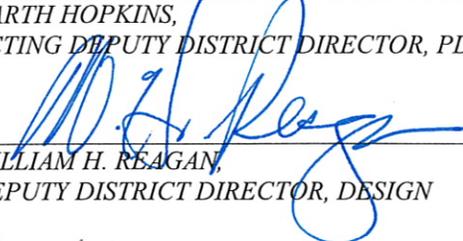

KATHLEEN MCCUNE, METRO TRANSPORTATION
PLANNING MANAGER / CONGESTION REDUCTION
INITIATIVE

APPROVAL RECOMMENDED:

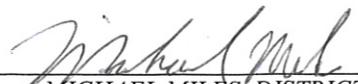

MIRNA DAGHER, PROJECT MANAGER

CONCURRED BY:


GARTH HOPKINS,
ACTING DEPUTY DISTRICT DIRECTOR, PLANNING

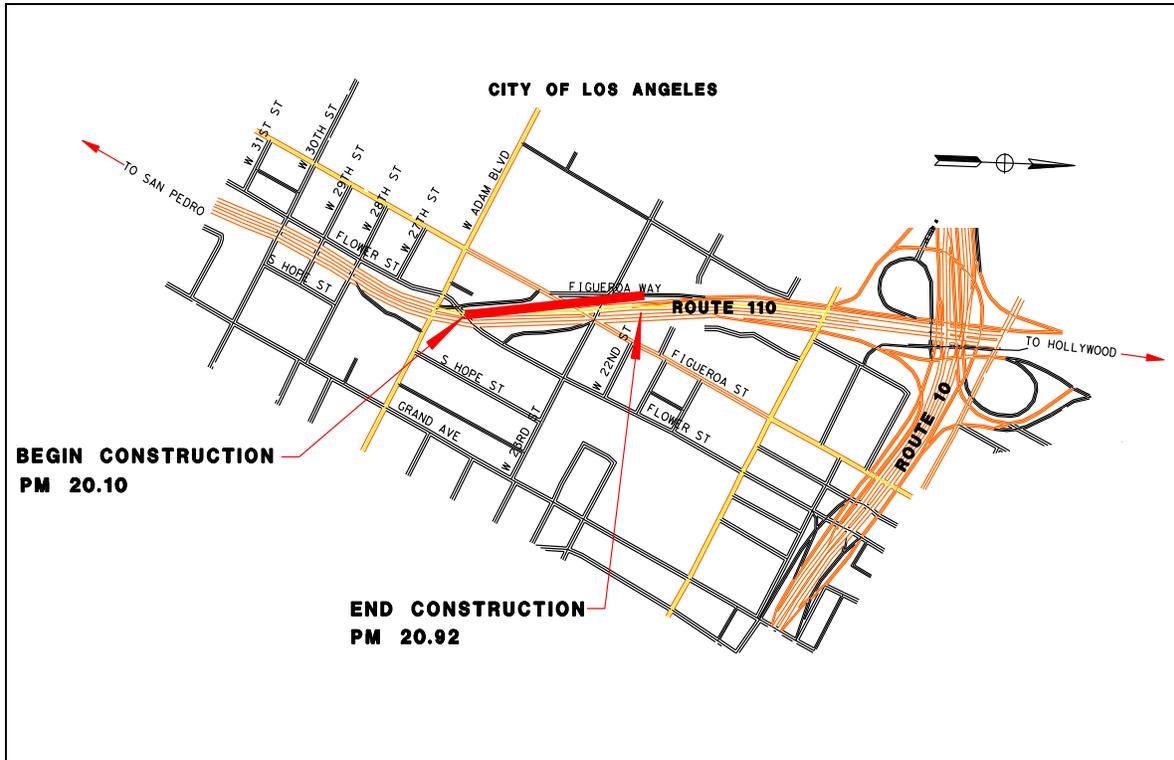

WILLIAM H. REAGAN,
DEPUTY DISTRICT DIRECTOR, DESIGN

APPROVED:


MICHAEL MILES, DISTRICT DIRECTOR

6/26/12
DATE

07 - LA -110 (PM 20.10/20.92)
HB4N
EA 27800K
June / 2012



At Route NB I-110

Between 30th Street (PM 20.10)

And Figueroa Street Overcrossing (PM 20.92)

This Project Study Report (PDS) has been prepared under the direction of the following Registered Engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.



REGISTERED CIVIL ENGINEER

6/11/12

DATE



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INTRODUCTION

Brief Project Description:

California Department of Transportation (Caltrans) in cooperation with Metro proposes to construct an elevated off-ramp on the northbound (NB) I-110 between 30th Street and Figueroa Street Overcrossing (OC). The proposed structure would bypass the bottleneck intersections at Flower and Adams Streets and Adams at-grade section, connecting the High Occupancy Vehicle (HOV) traffic to Figueroa Street. In the Fall of 2012, the I-110 HOV lanes will be converted to High Occupancy Toll (HOT) Lanes for a one-year Congestion Reduction Demonstration Program (CRDP). If the one-year demonstration program is successful, the HOT lanes will continue to operate on the I-110. The table as follows summarizes the information mentioned in this report.

See the Cost estimate for specific work items included in this project.

Project Limits	07-LA
DiStreet, Co., Rte., PM)	I-110 (PM 20.10/20.92)
Number of Alternatives:	4
Capital Outlay Support for PA/ED	2.1 million
Capital Construction Cost Range (excluding “no build”).	\$ 35 - 145 million (2012) \$ 40 - 165 million (escalated to 2017)
Right of Way Cost Range (excluding “no build”).	\$120,000 – \$580,000
Funding Source:	STIP
Type of Facility (conventional, expressway, freeway):	Freeway (HOV off ramp)
Number of Structures:	5
Anticipated Environmental Determination or Document:	ND/FONSI
Legal Description	N/A
Project Category	3

The remaining support, right of way and construction components of the project are preliminary estimates and are not suitable for programming purposes. Either a Supplemental PSR or Project Report will serve as the programming document for the remaining support and capital components of the project. A Project Report will constitute approval of the “selected” alternative.

1. BACKGROUND

The Harbor Freeway (Interstate I-110, south of junction US-101) is a primary north-south freeway route connecting the South Bay to downtown Los Angeles. The Harbor Freeway intersects with SR-91 and I-405 near Carson and I-105 and I-10 in Los Angeles.

The Harbor Transitway is an 11-mile grade-separated bus and HOV facility, which runs in the median of I-110 from Harbor Gateway Transit Center near SR-91 to Adams Blvd, near the south side of downtown Los Angeles. The segment between Slauson Avenue and 39th Street is an elevated four-lane roadway, which is open to vehicles with two or more passengers and serves buses operated by Metro, the Orange County Transportation Authority, the City of Los Angeles Department of Transportation, Gardena Municipal Bus Lines and Torrance Transit.

As part of the CRDP, Adam Blvd is currently widened to add an additional right turn lane in the westbound direction onto Figueroa Way. The widening of existing Adams Blvd would accommodate limited HOV traffic during the peak commute hours. There is a Light Rail Transit (LRT) line currently operating along southbound (SB) Flower Street and intersects Adams Blvd within the limits of the project.

The primary goal of the CRDP conversion of the HOV lanes to HOT lanes is to maximize the efficiency of the existing freeway system. The HOT lanes, which will have dynamically priced tolls, provide the opportunity to “sell-back” some of the additional capacity in the HOT lanes to those willing to pay. The toll rate will change (as frequently as every 5 minutes) to optimize the available lane capacity and traffic demand thereby managing traffic flow in the HOT lanes to ensure that travel speeds of at least 45 mph can be maintained. The conversion of the existing HOV lanes from 182nd Street/Harbor Gateway Transit Center to Adams Boulevard into HOT lanes would result in a total of 33 lane-miles of HOT lanes facilities.

The current issue with the I-110 HOV facility is that it ends approximately one half mile south of downtown Los Angeles, leaving HOV users to continue the rest of the journey on surface streets (such as Figueroa Street and Grand Avenue). At the northernmost HOV exit ramp at Adams Boulevard, carpoolers and buses must maneuver through two congested signalized intersections (NB I-110 HOV off-ramp & Adam Blvd and Flower Street & Adams Blvd), which results in the queuing of traffic on the HOV off-ramp as well as on the mainline of the freeway. Bypassing these bottleneck intersections would eliminate the queuing and improve the operation and safety of the HOV facility and off-ramps as well as the mainline.

2. PURPOSE AND NEED STATEMENT

The Harbor Transitway has five bus stations located in the median of the I-110 freeway as well as a southern terminus station located at the Harbor Gateway Transit Center. As a large number of the HOV lane traffic exits the freeway at Adam Blvd to access downtown Los

Angeles via Figueroa Street, the current termination of the NB I-110 HOV lanes at Adams Blvd presents a particularly challenging bottleneck. Increasing capacity at this location is a key to ensuring the HOV lanes can manage delay and serve additional users and reduce the delays.

Need:

Due to the termination of NB I-110 HOV lanes at Adam Blvd, HOV traffic exiting through the bottleneck intersections have experienced queuing and congestion on the off-ramp and HOV lanes.

Purpose:

The purpose of this project is to alleviate the congestion and reduce the queuing and delay on HOV lanes and HOV off-ramp at Adams Blvd.

3. DEFICIENCIES

Due to the existing geometric constraints, the NB I-110 HOV lane to Adams Blvd off-ramp has deficiencies as follows:

- The queuing on the Adams Blvd off-ramp and the NB I-110 HOV lanes
- The bottleneck effects at the congested intersections: Flower Street & Adams Blvd and the end of NB I-110 HOV to Adams Blvd off-ramp

4. CORRIDOR AND SYSTEM COORDINATION

This project is located within the segment listed in the Transportation Concept Report (TCR), which runs from Manchester Avenue/I-10&110 interchange on the I-110. The Transportation Concept Report (TCR) (see attachment I) for I-110 has recommended two (2) HOV lane plus 8 mixed-flow lanes (MFL) on I-110 with the LOS F0.

The Corridor HOT Concept of Operations for I-110 stated that the U.S. Department of Transportation (USDOT) entered into an agreement with the California Department of Transportation (Caltrans) and Los Angeles Metropolitan Transportation Authority (Metro), designating Los Angeles (LA) County as a Congestion Reduction Demonstration (CRD) Partner.

With a \$210.6 million Federal Urban Partnership Grant awarded to Metro by the USDOT, Metro is seeking to improve traffic flow and provide enhanced travel options in Los Angeles County. Existing carpool lanes on two segments will be converted into High-Occupancy Toll (HOT) lanes as part of the congestion pricing demonstration project, which includes I-110 from 182nd street (near the Harbor Gateway Transit Center) to Adams Blvd.

Los Angeles Department of Transportation (LADOT) proposes a Bike Lane improvement project on both directions of Figueroa Street. The bike lane (adjacent to existing curb) on NB Figueroa Street would result in a conflict when HOV traffic merges onto it.

5. ALTERNATIVES

There are four alternatives proposed for this project, including one “No Build” alternative and three “Build” alternatives.

A. Alternative 1 – No Build

Alternative 1 is inconsistent with the HOT lanes concept, which is to improve mobility.

In addition, the “No Build” alternative would not reduce the queuing and congestion on the HOV off-ramp and the HOV lanes.

B. Alternative 2 – A Two-lane HOV Off-ramp to Figueroa Way

Description

This alternative proposes a two-lane (NB I-110 Transitway to Figueroa Street) fly-over off-ramp (1,370’ in length), connecting from the end of the existing NB Transitway and landing at the existing Figueroa Way, to bypass the existing at-grade bottleneck intersections (The Harbor Transitway / Adams Blvd & Adams Blvd / Flower Street).

The proposed bridge structure (see L-1, attachment C) would take off from the end of the existing NB Transitway, flying over the existing I-110 and Adams Blvd, and touch down on the existing Figueroa Way via the proposed retaining structure. The alignment of the proposed fly-over structure is designed to fit in the existing right of way. The proposed fly-over HOV off-ramp will provide two standard lanes (12’ in width) and shoulder widths (5’ left and 10’ right).

The portion of the HOV on the existing Transitway will be re-stripped to provide two HOV lanes for the proposed fly-over off-ramp. The existing NB I-110 Transitway to Adams Blvd off-ramp will remain open to traffic.

The estimated project cost (current year 2012) and the escalated project cost (projected year 2017) for this alternative would be \$ 35-45 million and \$ 40-50 million, respectively (see attachment D).

Roadway Impact

There would be minimal impacts to the existing roadway (see L-1, attachment C) within the limits of the project. No sound walls would be needed due to the surrounding areas being encompassed by local businesses and schools.

The estimated structure cost (2012) for this alternative would be \$ 20-25 million (see attachment D).

Right of Way Impact

The estimated right-of-way cost (2012) and the escalated right of way cost (2017) for this alternative would be \$100,000 – \$500,000 and \$120,000 – \$580,000, respectively (see attachment I).

Utility Impact

The impact to the existing utilities along Flower Street and Adams Blvd would be minimal (see attachment I).

Rail Impact

The impact to the existing LRT would be minimal.

C. Alternative 3 – The Extension of the Existing I-110 Viaduct and A One-lane HOV Off-ramp to Figueroa Way

Description

This alternative proposes two elevated structures:

- The extension of the viaduct (885' in length) from the end of the existing I-110 Transitway to 105'± north of the Adams Blvd OC
- One-lane fly-over structure (646' in length), coming off the proposed viaduct extension and landing at the existing expressway, to bypass the existing at-grade bottleneck intersections (The Harbor Transitway/Adams Blvd & Adams Blvd/Flower Street).

The extended viaduct structure (see L-2, attachment C) would be built from the end of the existing Transitway to 105'± north of the Adams Blvd The one-lane elevated HOV off-ramp (see L-2, attachment C) would continue, from the end the proposed viaduct to the proposed retaining structure, landing on the existing Figueroa Way. The alignment of the proposed viaduct would follow the centerline of the existing I-110 freeway. The proposed one-lane off-ramp will provide a standard 12' lane and the standard shoulder widths (4' left and 8' right). The existing I-110 mainline,

between 28th Street and Figueroa Street, will be re-configured and re-stripped as five (5) 12' lanes and 10' inside and outside shoulders.

The existing striping on the NB HOV of I-110 Transitway will be continued and transitioned to one-lane when entering the proposed fly-over off-ramp from the proposed viaduct extension. The existing NB I-110 Transitway to Adams Blvd off-ramp will remain open to traffic.

The estimated project cost (current year 2012) and the escalated project cost (projected year 2017) for this alternative would be \$ 100-110 million and \$ 115-125 million, respectively (see attachment D).

Roadway Impact

Additional roadway widening on the I-110 mainline between 28th Street and Figueroa Street (see L-2, attachment C) would be needed. The portion of the existing Light Rail Transit (LRT) on Flower Street would be impacted and the replacement of the portion of Flower Street would be needed.

Structure Impact

Due to the roadway widening and the extension of the proposed viaduct, the following structures would be replaced:

- Adams Blvd OC
- Flower Street OC
- Replacement of the portion of the existing overhanging structure (Flower Street)
- Reconstruction of the portion of the retaining walls along both sides of the existing I-110 mainline between 28th Street and Figueroa Street

As a result of the bridge replacements (Adams Blvd & Flower Street OC), a temporary bridge structure would be built to keep one lane open and the Light Rail Transit (LRT) operational during construction. No sound walls would be needed due to the surrounding areas encompassed by local businesses and schools.

The estimated structure cost (2012) for this alternative would be \$ 50-55 million (see attachment D).

Right of Way Impact

Additional right of way acquisition would be minimal. The estimated right of way cost (2012) and the escalated right of way cost (2017) for this alternative would be \$100,000 – \$500,000 and \$120,000 - \$580,000 (see attachment I).

Utility Impact

The existing utilities along Flower Street and on its OC and along and/or on Adams Blvd and its OC would be impacted and the relocation cost is included as part of the right of way cost (see attachment I).

Railroad Impact

The existing LRT on Flower Street would be impacted and investigated in the PA/ED phase.

D. Alternative 4 – The Extension of the Existing I-110 Viaduct and A One-lane HOV Off-ramp to the Intersection of 23rd Street & Figueroa Street

Description

This alternative proposes two elevated structures:

- The extension of the viaduct (1,060' in length) from the end of the existing I-110 Transitway to 480'± north of the Adams Blvd OC
- One-lane fly-over structure (1,040' in length), coming off the side of the proposed viaduct extension and entering at the southwest corner of the intersection of Figueroa Street and 23rd Street, to bypass the existing at-grade bottleneck intersections (The Harbor Transitway/Adams Blvd & Adams Blvd /Flower Street).

The proposed viaduct structure (see L-3, attachment C) would be built from the end of the existing Transitway to 480'± north of the Adams Blvd. The one-lane elevated off-ramp connector (see L-3, attachment C) would be built as a single lane freeway exit from the extension of the proposed viaduct, which is about 90' north of Adams Blvd OC. continue, and landed at the southwest corner of the intersection of Figueroa Street & 23rd Street. The alignment of the proposed viaduct would follow the centerline of the existing I-110 freeway.

The proposed single lane off-ramp will provide a 12' lane and 4' left- and 8' right shoulder. The existing I-110 mainline, between 28th Street and Figueroa Street, will be configured and re-striped as a five (5) 12' lanes and 10' inside and outside shoulders. The striping on the existing I-110 Transitway will be continued through the end of the viaduct extension. The existing NB I-110 Transitway to Adams Blvd off-ramp will remain open.

This alternative would improve capacity along Figueroa Street by optimizing signal phasing and timing to accommodate and regulate the HOV traffic entering the street.

The estimated project cost (current year 2012) and the escalated project cost (projected year 2017) for this alternative would be \$130-145 million and \$150-165 million (see attachment D for detail), respectively.

Roadway Impact

Additional roadway widening on the I-110 mainline between 28th Street and Figueroa Street (see L-2, attachment C) would be needed. The portion of the existing LRT on Flower Street would be impacted and the replacement of the portion of Flower Street (see L-2, attachment C) would be needed.

Structure Impact

Due to the roadway widening and the extension of the proposed viaduct, the following structures would be replaced:

- Adams Blvd OC
- Flower Street OC
- Replacement of the portion of the existing overhanging structure (Flower Street)
- Reconstruction of the portion of the retaining walls along both side of the existing I-110 mainline between 28th Street and Figueroa Street

As a result of the bridge replacements (Adams Blvd & Flower Street OC), a temporary bridge structure would be built to keep one lane open and the LRT operational during construction. No sound walls would be needed due to the surrounding areas being encompassed by local businesses and schools.

The estimated structure cost (2012) for this alternative would be \$ 75-80 million (see attachment D), respectively.

Right of Way Impact

Additional right of way acquisition would be minimal. The estimated right of way cost (2012) and the escalated right of way cost (2017) for this alternative would be \$100,000 – \$500,000 and \$120,000 - \$580,000 (see attachment I).

Utility Impact

The existing utilities along Flower Street and on its OC and along and/or on Adams Blvd and its OC would be impacted and the relocation cost is included as part of the right of way cost (see attachment I).

Railroad Impact

The existing LRT on Flower Street would be impacted and investigated in the PA/ED phase.

6. TRAFFIC ENGINEERING

After a preliminary screening of project alternatives by traffic units, recommendations, findings, and the draft cost estimate are as follows (see attachment G):

- Traffic Investigation would recommend transitional guardrails, crash attenuators, intelligent warning sign systems, flashing beacons, shoulder rumble strip & pavement marking, and the LED lighting system be installed at recommended locations.
- Intelligent Transportation System (ITS) provides the draft cost estimate for the replacement of ITS elements, which would be \$150,000 for alternative 2 and \$180,000 for alternative 3 and 4.
- Traffic modeling would need SCAG traffic demand model, existing traffic data on the mainline and the HOV off-ramp, the historical traffic growth data/factors, and the base year and future year (within thirty years from the base year) to complete the request for the traffic forecasting.
- Traffic design would recommend that a traffic count and surveillance station and freeway lighting systems be installed for this project.
- High Occupancy Vehicle (HOV) would recommend that managed lanes for traffic management strategies and systems be developed and weaving analysis at buffer-separated facility and HOV analysis be performed.
- The cost estimate for the electrical work would be \$ 125,000.
- The traffic safety improvement items (Overhead sign, striping, & crash cushion) would be estimated at 5% of the total project cost (about 2 million).

7. RIGHT OF WAY

Conceptual right of way cost estimates (see attachment I) for alternatives 2, 3, & 4 are as follows:

- Alternative 2

Right of way involvement – One to ten parcels would require fee and easement.

Railroad involvement – The impact to the existing LRT would be minimal.

Utility involvement – Existing street lights, power lines, telephone lines, & traffic signals would be impacted.

- Alternatives 3 & 4

Right of way involvement – One to ten parcels would require fee and easement.

Railroad involvement – The existing LRT would be impacted.

Utility involvements – Existing street lights, power lines, telephone, traffic signals, water lines, and gas lines would be impacted.

A detailed investigation will be performed at the PA/ED phase.

8. STAKEHOLDER INVOLVEMENT

LADOT addressed the traffic delay at the Harbor Transitway/Adams Blvd & Adams Blvd / Flower Street. As part of the congestion pricing demonstration project, Metro proposes to convert the existing HOV on I-110 from 182nd street (near the Harbor Gateway Transit Center) to Adams Blvd into High-Occupancy Toll (HOT) lanes.

9. ENVIRONMENTAL DETERMINATION/DOCUMENT

Environmental Planning provided a Preliminary Environmental Assessment Report (PEAR) (see attachment E) for this project. The anticipated Environmental Approval would be a Negative Declaration (ND) for California Environmental Quality Act (CEQA) and a Finding of No Significant Impact (FONSI) for National Environmental Policy Act (NEPA). The identified Environmental Document for this project, at the current phase, would be an Initial Study/Environmental Assessment (IS/EA) and would take approximately eighteen (18) months to complete. The Preliminary Environmental Mitigation cost is to be determined at the PA/ED phase.

10. FUNDING

A. Capital Cost

Capital Outlay Estimate

	Range for Total Cost	Fund Source
Alternative 1 (No-Build)	None	None
Alternative 2	\$ 35–45 million (2012) \$ 40-50 million (escalated to 2017)	Various
Alternative 3	\$ 100-110 million (2012) \$ 115-125 million (escalated to 2017)	Various
Alternative 4	\$ 130-145 million (2012) \$ 150-165 million (escalated to 2017)	Various

The level of detail available to develop these capital cost estimates is only accurate to within the above ranges and useful for long-range planning purposes only. The capital costs should not be used to program or commit capital funds. The Project Report will serve as the appropriate document from which the remaining support and capital components of the project will be programmed.

**B. Capital Support Estimate for the Programmable PA&ED
for this project : \$ 2,100,000**

PROJECT SUPPORT COMPONENTS			
	PA/ED		Total
	0 Phase		
	Dist	DES	
Estimated PY's	8.0	2.5	10.5
Total \$'s	8.0	2.5	10.5

11. SCHEDULE

Project Milestones	Delivery Date (Month, Year)
Begin Environmental	07/2012
Circulate DED	07/2013
PA & ED	03/2014

The anticipated funding fiscal year for construction is 2017.

12. FHWA COORDINATION

FHWA reviewed this report on N/A. Per (*latest federal Transportation Act*), this project is eligible for federal-aid funding and is considered to be (*FULL-OVERSIGHT*) under current FHWA-Caltrans Stewardship Agreements.

Federal engineering and operational acceptability determination was received on N/A (will be determined in the PA/ED phase).

Submittal of an unsigned PSR or an unsigned Project Report to FHWA is required to request federal "engineering and operational acceptability" determination of a new or modified access to the Interstate. Federal "engineering and operational acceptability" determination must be obtained prior to circulation of the environmental document.

CMAQ Eligibility N/A.

13. VALUE ANALYSIS

Due to the total project cost exceeds the 25-million threshold for the value analysis (VA), the VA is to be performed at the PA/ED phase.

14. DISTRICT CONTACTS

Caltrans

Name	Organization/Branch	Phone
Elaheh Yadegar	Chief, Office of Project and Special Studies	(213) 897-9635
Jerrel B. Kam	Chief, Office of Design A	(213) 897-4644
Karl Dreher	HQ Project Development Coordinator	(213) 897-1912
J.D. Bamfield	HQ Design Reviewer	(213) 897-1912
Mirna Dagher	Project Manager, Office of Project Management	(213) 897-2786
Mohamed Ahmed	Office of Project and Special Studies	(213) 897-5975
Albert Yu	District Traffic Management	(213) 897-0285
Steve Chan	Hazardous Waste	(213) 897-3646
Garrett Damrath	Environmental Planning	(213) 897-9016
I-Chung (Ivan) Chu	Project Engineer, Office of Project Studies	(213) 897-0097

15. PROJECT REVIEWS

Field Review	<u>Mohamed A. Ahmed</u>	Date <u>06/09</u>
District Maintenance	<u>Larry Wiering</u>	Date <u>03/2012</u>
District Safety Engineer	<u>Yunus Ghausi</u>	Date <u>03/2012</u>
HQ Project Development Coordinator	<u>Karl Dreher</u>	Date <u>03/2012</u>
HQ Design Coordinator	<u>J.D. Bamfield</u>	Date <u>03/2012</u>
Project Manager District Safety Review	<u>Mirna Dagher</u>	Date <u>05/2012</u>

16. ATTACHMENTS

- A. LOCATION MAP
- B. CROSS SECTIONS
- C. LAYOUT
- D. COST ESTIMATES
- E. TRANSPORTATION PLANNING SCOPING INFORMATION SHEET
- F. PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT (PEAR)
- G. TRAFFIC ENGINEERING PERFORMANCE ASSESSMENT
- H. PSR-PDS SURVEYS NEEDS QUESTIONNAIRE
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- N. TASAS TABLE B
- O. STORM WATER DOCUMENTATION
- P. RISK REGISTER

ATTACHMENT A

LOCATION MAP

ATTACHMENT B
CROSS SECTIONS

CONCEPTUAL PLAN

A TWO-LANE HOV OFF-RAMP TO FIGUEROA WAY

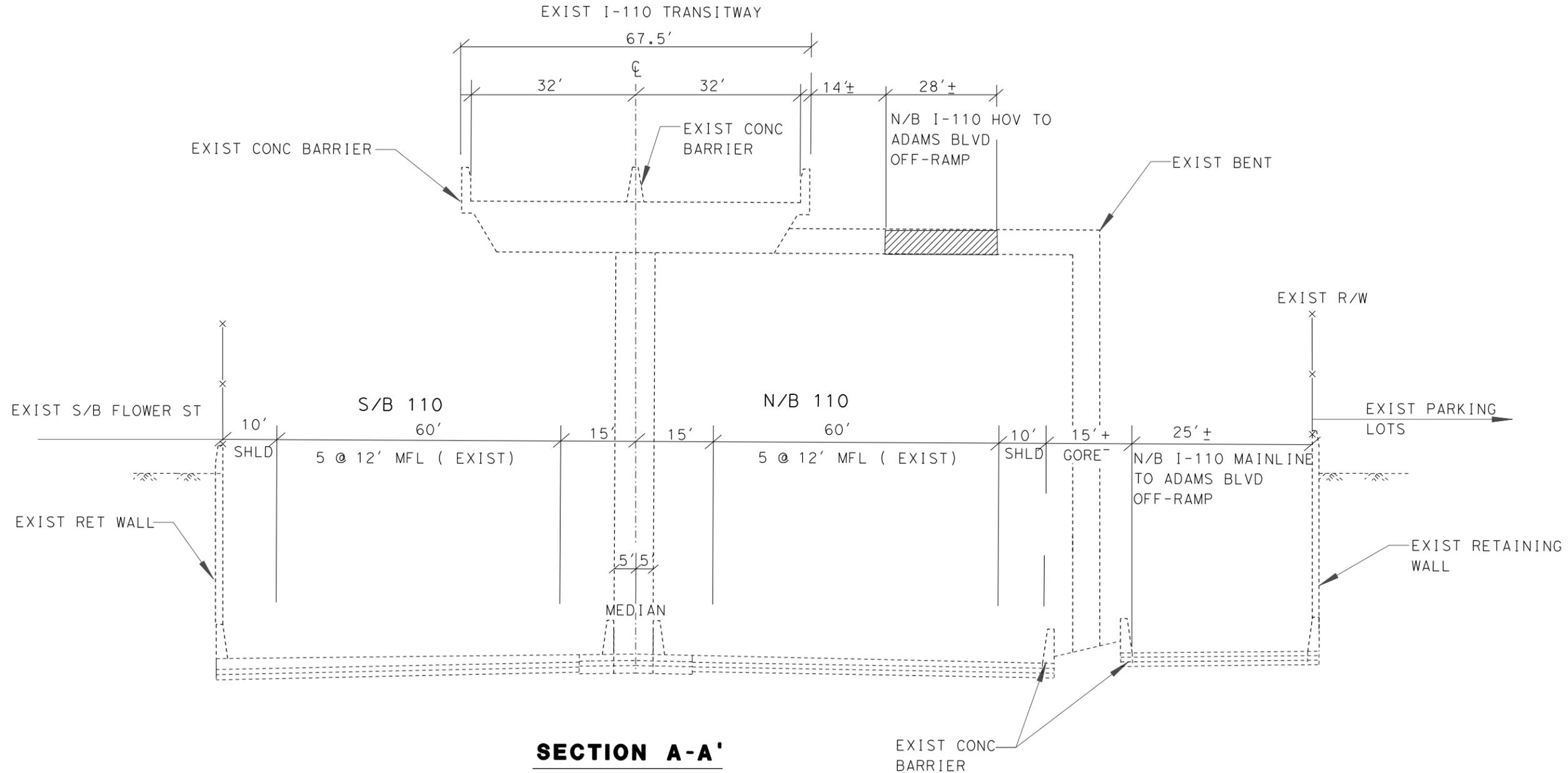
I-110 PM 20.1/20.92

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	20.1/20.92		

REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

No. _____
Exp. _____
CIVIL
STATE OF CALIFORNIA

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



ALTERNATIVE 2

X-1

ATTACHMENT B

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 OFFICE OF PROJECT & SPECIAL STUDIES
 FUNCTIONAL SUPERVISOR: MA
 CALCULATED/DESIGNED BY: _____
 CHECKED BY: _____
 REVISED BY: _____
 DATE REVISED: _____

CONCEPTUAL PLAN

A TWO-LANE HOV OFF-RAMP TO FIGUEROA WAY

I-110 PM 20.1/20.92

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	20.1/20.92		

REGISTERED CIVIL ENGINEER DATE _____
 PLANS APPROVAL DATE _____
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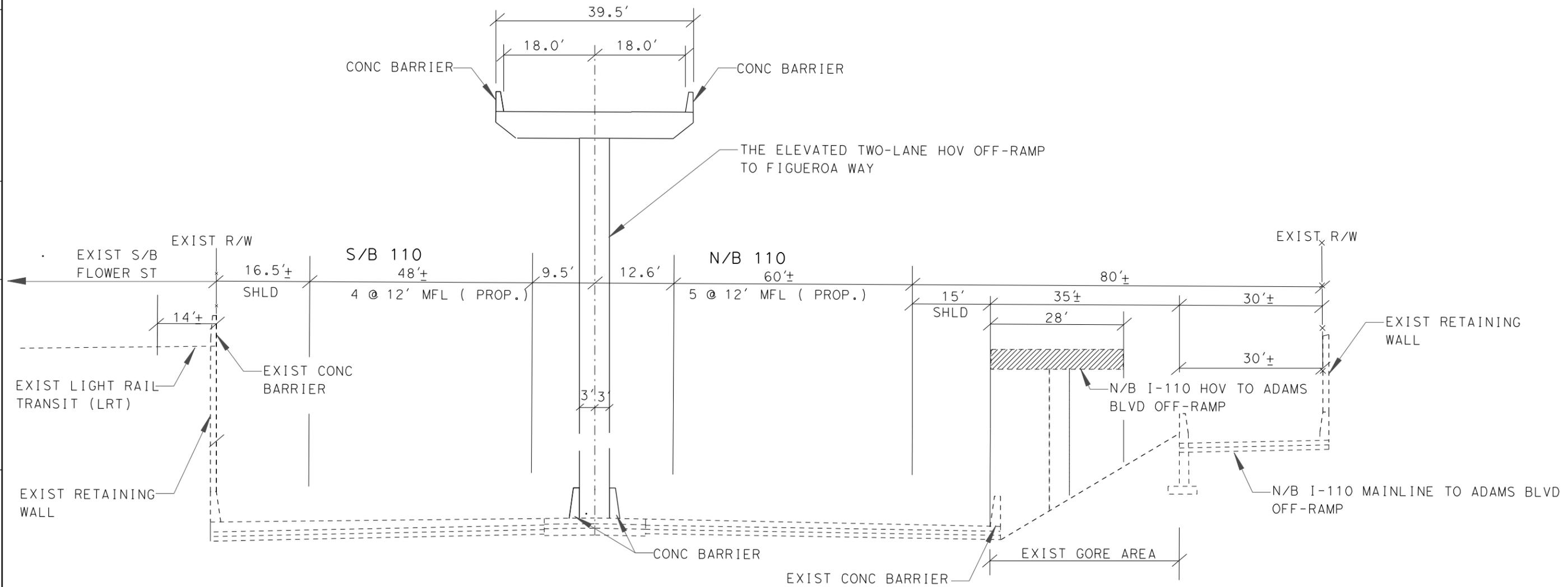
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ALTERNATIVE 2
 X-2
 ATTACHMENT B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	20.10/20.92		

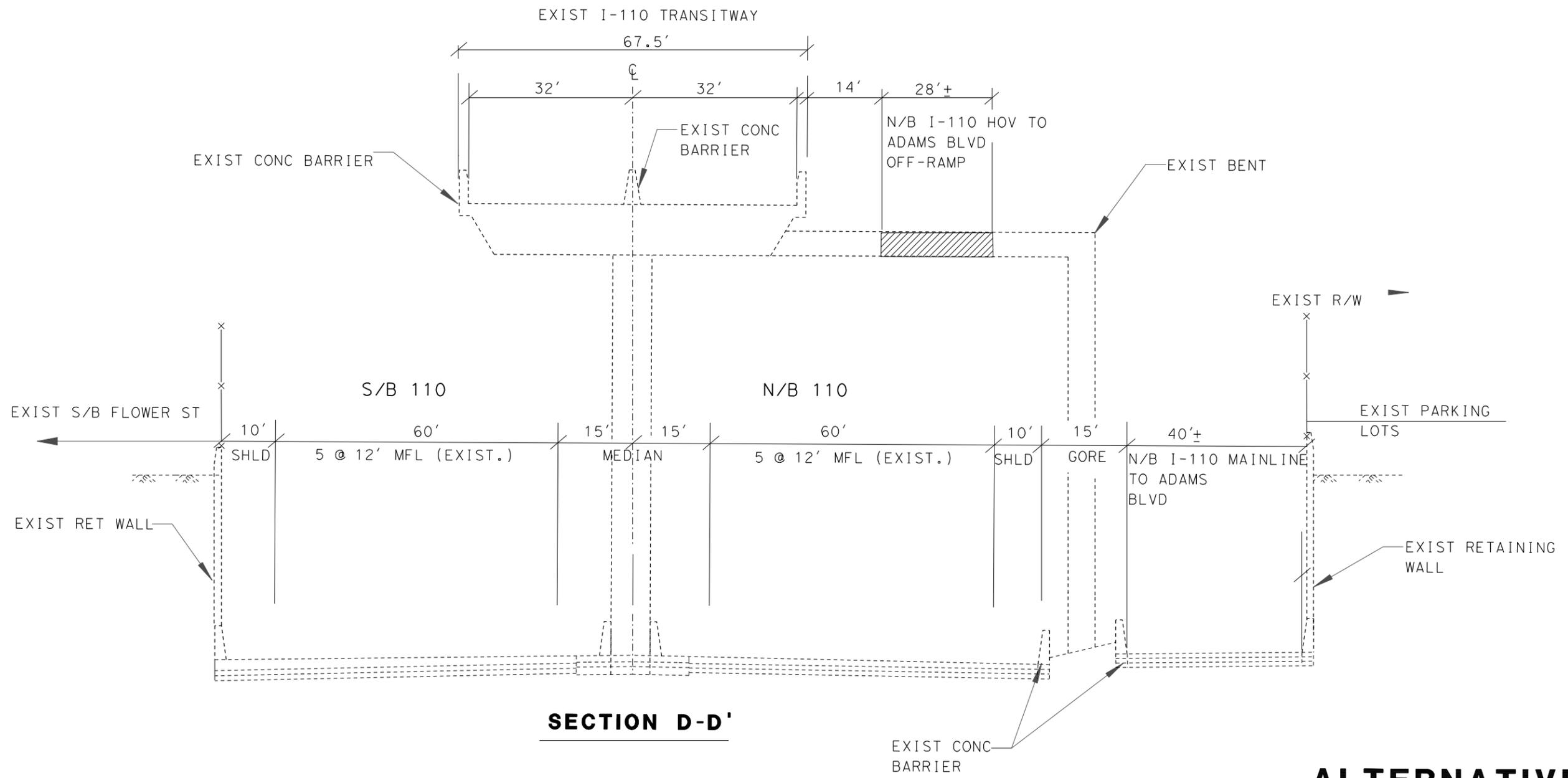
REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

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

CONCEPTUAL PLAN

THE EXTENSION OF THE EXISTING I-110 VIADUCT AND A ONE-LANE HOV OFF-RAMP TO FIGUEROA WAY

I-110 PM 20.10/ 20.92



ALTERNATIVE 3
X-4
ATTACHMENT B

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 OFFICE OF PROJECT & SPECIAL STUDIES
 FUNCTIONAL SUPERVISOR
 MA
 REVISIONS: 00-00-00 DATE PLOTTED => \$DATE TIME PLOTTED => \$TIME

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	20.1/20.92		

REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

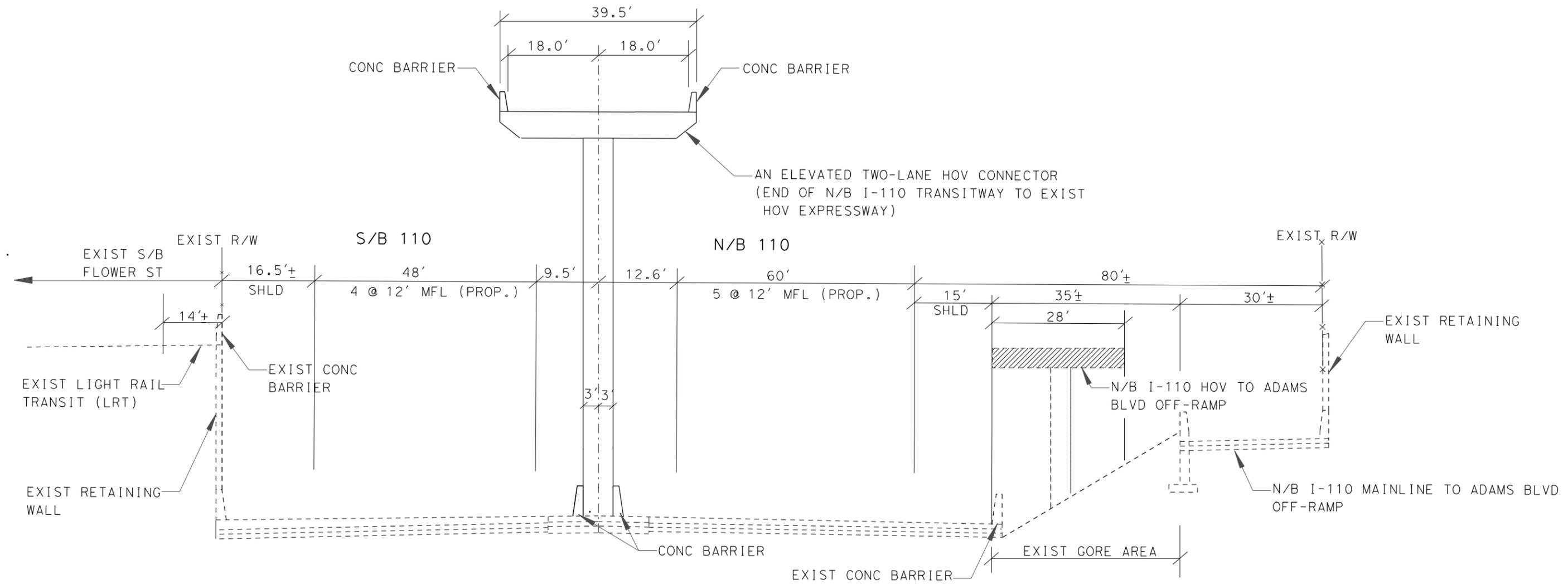
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

CONCEPTUAL PLAN

THE EXTENSION OF THE EXISTING I-110 VIADUCT AND A ONE-LANE HOV OFF-RAMP TO FIGUEROA WAY

I-110 PM 20.10/ 20.92

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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 CHECKED BY
 REVISED BY
 DATE
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 DATE PLOTTED => \$DATE
 00-00-00 TIME PLOTTED => \$TIME



ALTERNATIVE 3
X-5
ATTACHMENT B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	20.1/20.92		

REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

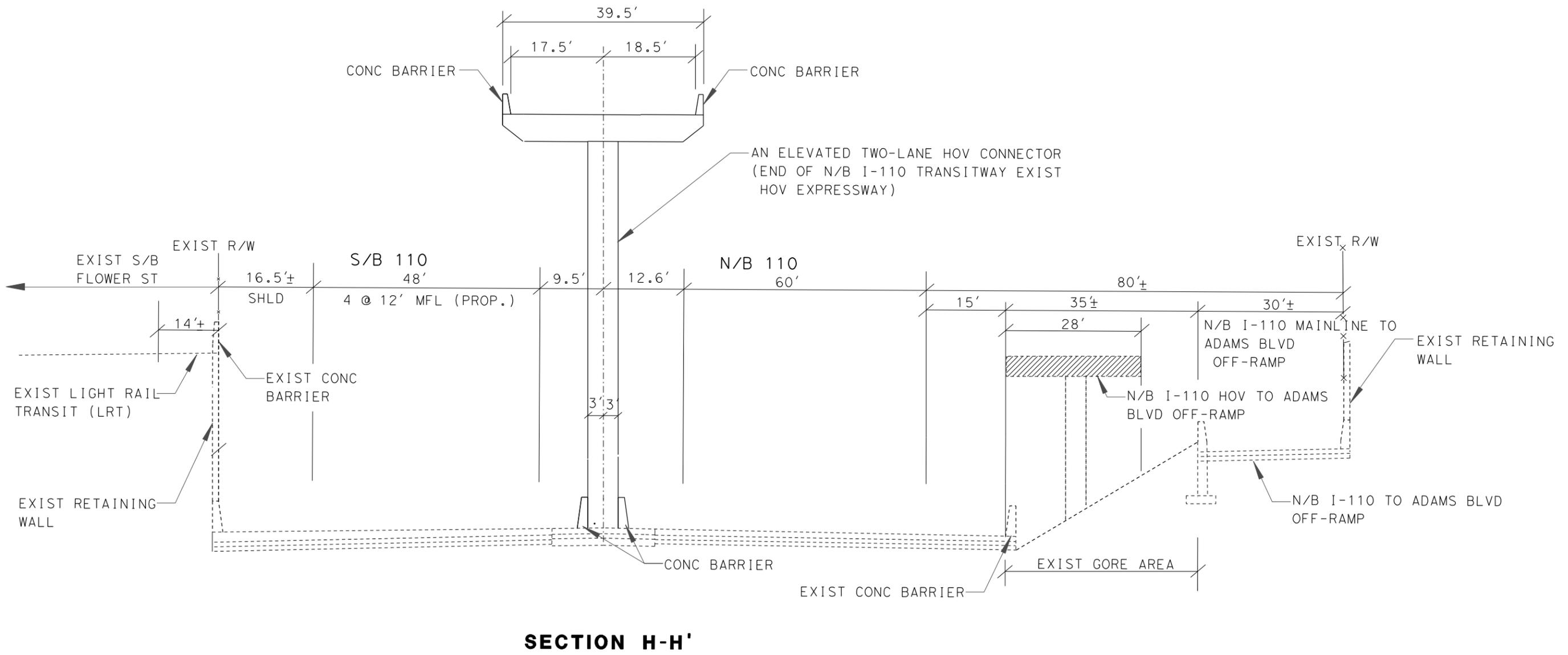
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

CONCEPTUAL PLAN

THE EXTENSION OF THE EXISTING I-110 VIADUCT AND A ONE-LANE HOV OFF-RAMP TO THE INTERSECTION OF 23rd St. & FIGUEROA St.

I-110 PM 20.10/ 20.92

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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 REVISED BY
 DATE REVISED



ALTERNATIVE 4

X-8

ATTACHMENT B

LAST REVISION | DATE PLOTTED => \$DATE
 00-00-00 | TIME PLOTTED => \$TIME

ATTACHMENT C

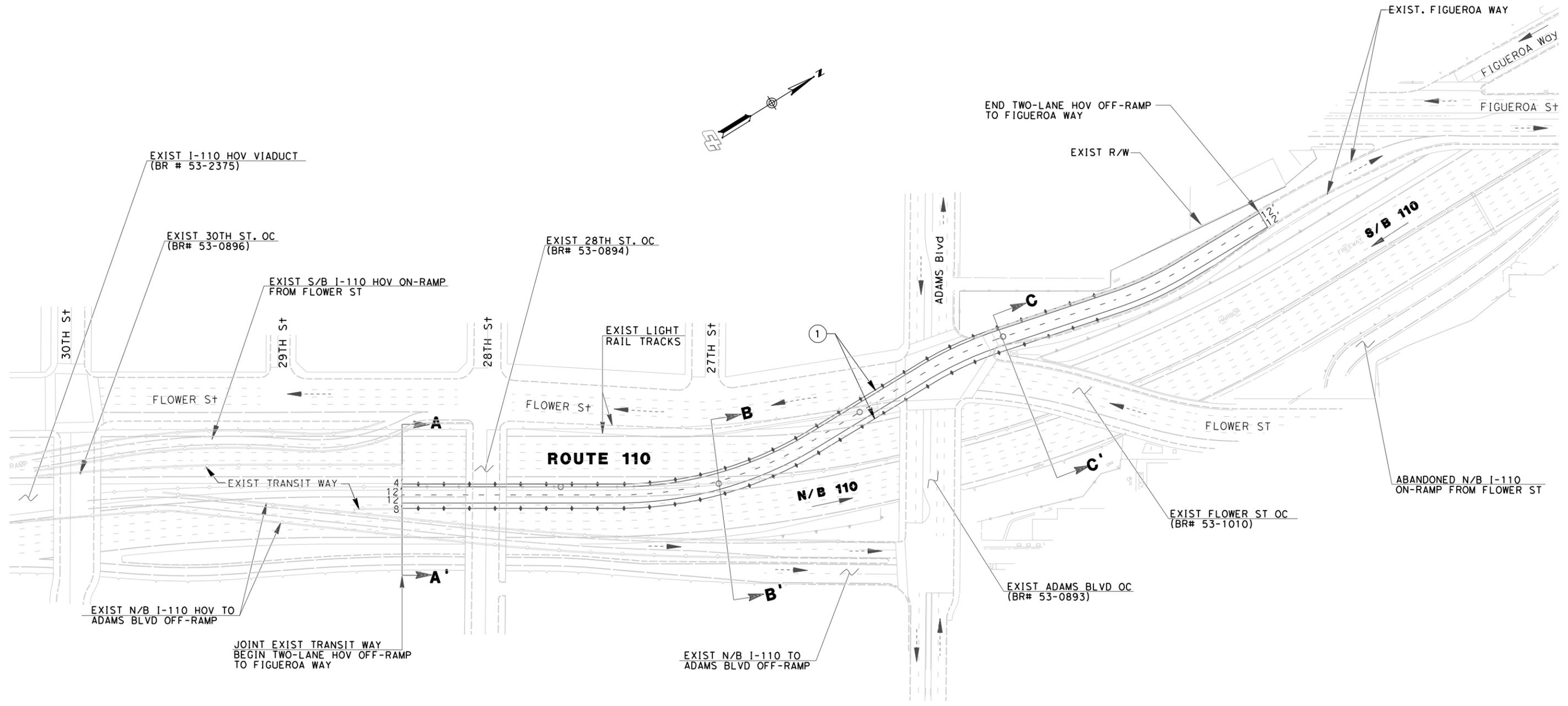
LAYOUT

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	110	20.10/20.92		
REGISTERED CIVIL ENGINEER			DATE		
PLANS APPROVAL DATE			No. _____		
			Exp. _____		
			CIVIL		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

CONCEPTUAL PLAN

A TWO-LANE HOV OFF-RAMP TO FIGUEROA WAY (FOR PSR/PDS ONLY)

NOTES:
 1) FOR COMPLETE RIGHT OF WAY AND ACCURATE DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE
 2) ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN



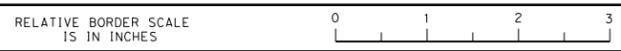
CONSTRUCTION NOTES:
 ① CONSTRUCT AN ELEVATED TWO LANE HOV OFF RAMP CONNECTOR (END OF NB I-110 TRANSITWAY TO FIGUEROA WAY)

ALTERNATIVE 2

L-1

ATTACHMENT C

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 OFFICE OF PROJECT & SPECIAL STUDY
 FUNCTIONAL SUPERVISOR M.A
 CALCULATED-DESIGNED BY
 CHECKED BY
 I.C
 REVISED BY
 DATE REVISED



ATTACHMENT D
COST ESTIMATES

Project Study Report – Project Development Support Cost Estimate

District-County-Route	<u>07-LA-110</u>
(PM)	<u>20.10-20.92</u>
EA	<u>27800K</u>
Program Code	<u>HB4N</u>

PROJECT DESCRIPTION:

Limits: In Los Angeles County on Route I-110 Transitway from the end of the existing I-110 Transitway to Figueroa St.

Proposed Improvement (Scope): Construct directional fly-over connector

Alternative No. 2 – Two-lane HOV off-ramp Connector

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	\$ <u>10 – 15 Million</u>
TOTAL STRUCTURE ITEMS	\$ <u>20 - 25 Million</u>
TOTAL ENVIRONMENTAL MITIGATION ITEMS	\$ <u>N/A</u>
SUBTOTAL CONSTRUCTION COSTS	\$ <u>30 – 40 Million</u>
TOTAL RIGHT OF WAY ITEMS: (Year 2012)	\$ <u>100,000 – \$500,000</u>
TOTAL RIGHT OF WAY ITEMS: (Escalated to 2017)	\$ <u>120,000 - \$580,000</u>
TOTAL PROJECT CAPITAL OUTLAY COSTS (Year 2012)	\$ <u>30 – 40 Million</u>
TOTAL PROJECT CAPITAL OUTLAY COSTS (Escalated to 2017)	\$ <u>35 – 45 Million</u>
SUPPORT COST	\$ <u>4 - 6 Million</u>
TOTAL PROJECT COSTS: (Current Year - 2012)	\$ <u>35– 45 Million</u>
TOTAL PROJECT COSTS : (Escalated to 2017)	\$ <u>40– 50 Million</u>

I. ROADWAY ITEMS

	<u>Average Cost per Lane Mile</u>	<u>Number of Mile</u>	<u>Total cost</u>
Total Cost of Lane KMs	<u>\$2.5 Million/Lane Mile</u>	<u>0.82</u>	<u>\$10-15M</u>

The Average Cost per Lane KM was computed by dividing the Total Roadway Cost by the Number of KMs, then divided again by the number of lanes proposed. The Total Roadway Cost includes the following items: Earthwork, Highway planting, Pavement Structural Section (see Attachment B), TMP Items, ITS Items, Storm Water Mitigation (see Attachment K), ADL (Hazardous Waste), Minor Items, Roadway Mobilization, and Roadway Additions. Retaining walls and sound walls are proposed at ultimate locations. Contingency of 35 percent was factored in the subtotal cost to obtain the final Total Roadway Cost.

II. STRUCTURES ITEMS

Bridge Name	Structure (1) <u>Two-lane</u> <u>Connector (#53-New)</u>
Total Cost for Structure	<u>\$19,090,000-</u> <u>23,080,000</u>

TOTAL STRUCTURES ITEMS \$19,090,000-\$23,080,000*
(Sum of Total Cost for Structures)

USE \$20M-25M

* These cost estimates are provided by Headquarter Structure units.

III. ENVIRONMENTAL MITIGATION* (To be determined at next phase)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Environmental Mitigation	_____	_____	_____	<u>N/A</u>
			USE	<u>N/A</u>

IV. RIGHT OF WAY ITEMS (See Attachment I)

Project Study Report – Project Development Support Cost Estimate

District-County-Route	<u>07-LA-110</u>
(PM)	<u>20.10-20.92</u>
EA	<u>27800K</u>
Program Code	<u>HB4N</u>

PROJECT DESCRIPTION:

Limits: In Los Angeles County on Route I-110 Transitway from the end of the existing I-110 Transitway to Figueroa St.

Proposed Improvement (Scope): Construct directional fly-over connector

Alternative No. 3 – The Extension of the I-110 Transit Way & a One-Lane HOV Off-Ramp Connector

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	\$ <u>45 – 50 Million</u>
TOTAL STRUCTURE ITEMS	\$ <u>50 - 55 Million</u>
TOTAL ENVIRONMENTAL MITIGATION ITEMS	\$ <u>N/A</u>
SUBTOTAL CONSTRUCTION COSTS	\$ <u>95 – 105 Million</u>
TOTAL RIGHT OF WAY ITEMS: (Year 2012)	\$ <u>100,000 – \$500,000</u>
TOTAL RIGHT OF WAY ITEMS: (Escalated to 2017)	\$ <u>120,000 – \$580,000</u>
TOTAL PROJECT CAPITAL OUTLAY COSTS (Year 2012)	\$ <u>95 – 105 Million</u>
TOTAL PROJECT CAPITAL OUTLAY COSTS (Escalated to 2017)	\$ <u>110 – 120 Million</u>
SUPPORT COST	\$ <u>4 - 6 Million</u>
TOTAL PROJECT COSTS: (Current Year - 2012)	\$ <u>100 – 110 Million</u>
TOTAL PROJECT COSTS : (Escalated to 2017)	\$ <u>115 – 125 Million</u>

Attachment D

I. ROADWAY ITEMS

	<u>Average Cost per Lane Mile</u>	<u>Number of Mile</u>	<u>Total cost</u>
Total Cost of Lane KMs	<u>\$14.3 Million/Lane Mile</u>	<u>0.82</u>	<u>\$45 -\$50M</u>

The Average Cost per Lane KM was computed by dividing the Total Roadway Cost by the Number of KMs, then divided again by the number of lanes proposed. The Total Roadway Cost includes the following items: Earthwork, Highway planting, Pavement Structural Section (see Attachment B), TMP Items, ITS Items, Storm Water Mitigation (see Attachment K), ADL (Hazardous Waste), Minor Items, Roadway Mobilization, and Roadway Additions. Retaining walls and sound walls are proposed at ultimate locations. Contingency of 35 percent was factored in the subtotal cost to obtain the final Total Roadway Cost.

II. STRUCTURES ITEMS

Bridge Name	Structure (1) <u>One-lane Connector (</u> <u>#53-New)</u> <u>(included)</u>	Structure (2) <u>Replace Adam Blvd</u> <u>(53-0893)</u> <u>(included)</u>	Structure (3) <u>Replace Flower St</u> <u>(53-0110)</u> <u>(included)</u>
	Structure (4) <u>Temporary Structure</u> <u>(included)</u>		
Total Cost for Structures	<u>\$45,133,000-</u> <u>53,850,000</u>		

TOTAL STRUCTURES ITEMS \$45,133,000-\$53,850,000*
(Sum of Total Cost for Structures)

USE \$50M-55M

* These cost estimates are provided by Headquarter Structure units.

III. ENVIRONMENTAL MITIGATION* (To be determined at next phase)

Attachment D

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Environmental Mitigation	_____	_____	_____	<u>N/A</u>
			USE	<u>N/A</u>

IV. RIGHT OF WAY ITEMS (see Attachment I)

Project Study Report – Project Development Support Cost Estimate

District-County-Route	<u>07-LA-110</u>
(PM)	<u>20.10-20.92</u>
EA	<u>27800K</u>
Program Code	<u>HB4N</u>

PROJECT DESCRIPTION:

Limits: In Los Angeles County on Route I-110 Transitway from the end of the existing I-110 Transitway to Figueroa St.

Proposed Improvement (Scope): Construct Directional fly-over connector

Alternative No. 4 – The Extension of the I-110 Transit Way & a One-Lane HOV Off-Ramp Connector

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	\$ <u>50 – 55 Million</u>
TOTAL STRUCTURE ITEMS	\$ <u>75 - 80 Million</u>
TOTAL ENVIRONMENTAL MITIGATION ITEMS	\$ <u>N/A</u>
SUBTOTAL CONSTRUCTION COSTS	\$ <u>125 – 135 Million</u>
TOTAL RIGHT OF WAY ITEMS: (Year 2012)	\$ <u>100,000 - \$500,000</u>
TOTAL RIGHT OF WAY ITEMS: (Escalated to 2017)	\$ <u>120,000 - \$580,000</u>
TOTAL PROJECT CAPITAL OUTLAY COSTS (Year 2012)	\$ <u>125 – 135 Million</u>
TOTAL PROJECT CAPITAL OUTLAY COSTS (Escalated to 2017)	\$ <u>145 – 155 Million</u>
SUPPORT COST	\$ <u>5 - 7 Million</u>
TOTAL PROJECT COSTS: (Current Year - 2012)	\$ <u>130 – 145 Million</u>
TOTAL PROJECT COSTS : (Escalated to 2017)	\$ <u>150 – 165 Million</u>

I. ROADWAY ITEMS

	<u>Average Cost per Lane Mile</u>	<u>Number of Mile</u>	<u>Total cost</u>
Total Cost of Lane KMs	<u>\$14.9 Million/Lane Mile</u>	<u>0.82</u>	<u>\$50-55M</u>

The Average Cost per Lane KM was computed by dividing the Total Roadway Cost by the Number of KMs, then divided again by the number of lanes proposed. The Total Roadway Cost includes the following items: Earthwork, Highway planting, Pavement Structural Section (see Attachment B), TMP Items, ITS Items, Storm Water Mitigation (see Attachment K), ADL (Hazardous Waste), Minor Items, Roadway Mobilization, and Roadway Additions. Retaining walls and sound walls are proposed at ultimate locations. Contingency of 35 percent was factored in the subtotal cost to obtain the final Total Roadway Cost.

II. STRUCTURES ITEMS

Bridge Name	Structure (1) <u>One-Lane Connector (</u> <u>#53-New)</u>	Structure (2) <u>Replace Adam Blvd</u> <u>(53-0893)</u>	Structure (3) <u>Replace Flower St</u> <u>(53-0110)</u>
	<u>(included)</u>	<u>(included)</u>	<u>(included)</u>
	Structure (4) <u>Temporary Structure</u>		
	<u>(included)</u>		
Total Cost for Structure	<u>\$66,833,000-</u> <u>\$77,700,000</u>		

TOTAL STRUCTURES ITEMS \$66,833,000-\$77,700,000*
(Sum of Total Cost for Structures)

USE **\$75M-80M**

* These cost estimates are provided by Headquarter Structure units.

III. ENVIRONMENTAL MITIGATION* (To be determined at next phase)

Attachment D

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Environmental Mitigation	<u>1</u>	<u></u>	<u></u>	<u>N/A</u>
			USE	<u>N/A</u>

IV. RIGHT OF WAY ITEMS: (See Attachment I)

ATTACHEMENT E

TRANSPORTATION PLANNING
SCOPING INFORMATION SHEET

ARTICLE 4 Transportation Planning Scoping Information Sheet

PROJECT INFORMATION

District	County	Route	Post Miles	Project ID No/ Expenditure Authorization No.
07	Los Angeles	110	PM 20.10/20.92	EA 27800K
Project Name and Description : Freeway (HOV Off-Ramp Connector) To construct an elevated off-ramp connector on the N/B I-110 between 30 th Street and Figueroa Street OC.				

Prepared by:

District Information Sheet Point of Contact*:	Name: I-Chung Chu	Functional Unit:	Project Studies
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* The District Information Sheet Point of Contact is responsible for completing Project Information, PDT Team and Stakeholder Information, and coordinating the completion of project-related information with the Transportation Planning Stakeholders. Upon completion, provides the Transportation Planning PDT Representative and Project Manager with a copy of the Information Sheet.

Project Development Team (PDT) Information		
Title	Name	Phone Number
Project Manager	Mohamed Ahmed	(213) 897-5975
Project Engineer	I-Chung Chu	(213) 897-0097
Transportation Planning PDT Representative**	I-Chung Chu	(213) 897-0097

Transportation Planning Stakeholder Information		
Title	Name	Phone Number
Regional Planner	Melissa Joshi	(213) 897-1347
System Planner	Shefa Bhuiyan and Jina Polimeni	(213) 897-0649/4649
Local Development- Intergovernmental Review (LD-IGR) Planner	Dianna Watson	(213) 897-9140
Community Planner	Wilford Melton	(213) 897-1344
Goods Movement Planner	Kathleen Wanda	(213) 897-0587
Transit Planner	Linda Wright	(213) 897-0213
Bicycle and Pedestrian Coordinator	Dale Benson	(213) 897-2934
Park and Ride Coordinator	Dianna Watson	(213) 897-9140
Native American Liaison	Wilford Melton	(213) 897-1344
Other Coordinators:	Neil Hashiba (Trans Information)	(213) 897-4369

Project Purpose and Need** -- The purposes of this project are to alleviate the congestion and reduce the queuing on the HOV mainline and Adams Blvd off-ramp connector. This project is needed because HOV off-ramp connector has experienced queuing and congestion on the connector and the HOV lanes.

** The Transportation Planning PDT Representative is responsible for providing the PDT with the system-wide and corridor level deficiencies identified by Transportation Planning. The PDT uses the information provided by Transportation Planning to develop the purpose and need with contributions from other Caltrans functional units and external stakeholders at the initiation of the PID and is refined throughout the PID process. As the project moves past the project initiation stage and more data becomes available, the purpose and need is refined. For additional information on purpose and need see: www.dot.ca.gov/hq/env/emo/purpose_need.htm

1. Project Funding:

a	List all known and potential funding sources and percent splits: (ie. State Transportation Improvement Program (STIP)/State Highway Operations and Protection Program (SHOPP)/Transportation Enhancement (TE)/Environmental Enhancement and Mitigation (EEM)/Safe Routes to School (SR2S)/etc.).
b	Is this a measure project? Yes /No . If yes, name and describe the measure.

2. Regional Planning:

a	Name of and contact information for Metropolitan Planning Organization (MPO) or Regional Transportation Planning Agency (RTPA). Southern California Association of Governments Attn. Mr. Hasan Ikhata, Executive Director, 818 W 7 th St. 12 th Flr., Los Angeles, CA 90017
b	Name of and contact information for local jurisdiction (City or County) None apply in this case.
c	Provide the page number and project description as identified in the Regional Transportation Plan (RTP) and the date of adoption, or provide an explanation if not in RTP. Page 6, RTP# LA0329
d	Provide nexus between the RTP objectives and the project to establish the basis for the project purpose and need. Project appears to meet RTP/SCS goals.
e	Is the project located in an area susceptible to sea-level rise? Please consult Environmental Planning for more details.
f	Name of Air Quality Management District (AQMD) South Coast AQMD.
g	If the project is located in a federal non-attainment or attainment-maintenance area is the project: <ul style="list-style-type: none"> • Regionally Significant? (per 40 (Code of Federal Regulations (CFR) 93.101) Y <input checked="" type="checkbox"/> /N • Exempt from conformity? (per 40 CFR 93.126 and 93.128) Y /N <input checked="" type="checkbox"/> • Exempt from regional analysis? (per 40 CFR 93.127) Y /N <input checked="" type="checkbox"/> • Not exempt from conformity (must meet all requirements)? Y <input checked="" type="checkbox"/> /N

3. Native American Consultation and Coordination:

a	If project is within or near an Indian Reservation or Rancheria? If so, provide the name of Tribe.
b	Has/have the Tribal Government(s) been consulted? Y /N . If no, why not?
c	If the project requires Caltrans to use right-of-way on trust or allotted lands, this information needs to be included as soon as possible as a key topic in the consultation with the Tribe(s). Has the Tribe been consulted on this topic? Y /N . If no, why not?
d	Has the Bureau of Indian Affairs (BIA) been notified? Y /N
e	Have all applicable Tribal laws, ordinances and regulations [Tribal Employment Rights Ordinances (TERO), etc.] been reviewed for required contract language and coordination?
f	If the Tribe has a TERO, is there a related Memorandum of Understanding between the District and the Tribe?

	Tribe?
g	Has the area surrounding the project been checked for prehistoric, archeological, cultural, spiritual, or ceremonial sites, or areas of potentially high sensitivity? If such areas exist, has the Tribe, Native American Heritage Commission or other applicable persons or entities been consulted?
h	If a Native American monitor is required for this project, will this cost be reflected in cost estimates?
i	In the event of project redesign, will the changes impact a Native American community as described above in d, e, or h?

4. System Planning: SEE ATTACHED

a	Is the project consistent with the DSMP? Y /N . If yes document approval date. If no, explain.
b	Is the project identified in the TSDP? Y /N ? If yes, document approval date . If no, explain.
c	Is the project identified in the TCR/RCR or CSMP? Y /N . If yes, document approval date . If no, explain. Is the project consistent with the future route concept? Y /N . If no, explain.
d	Provide the Concept Level of Service (LOS) through project area.
e	Provide the Concept Facility – include the number of lanes. Does the Concept Facility include High Occupancy Vehicle lanes? Y /N .
f	Provide the Ultimate Transportation Corridor (UTC) – include the number of lanes. Does the UTC include High Occupancy Vehicle Lanes? Y /N .
g	Describe the physical characteristics of the corridor through the project area (i.e. flat, rolling or mountainous terrain...).
h	Is the highway in an urban or rural area? Urban /Rural . Provide Functional Classification.
i	Is facility a freeway, expressway or conventional highway?
j	Provide Route Designations: (i.e. Interregional Transportation Strategic Plan (ITSP) High Emphasis or Focus Route, Surface Transportation Assistance Act (STAA) Route, Scenic Route...).
k	Describe the land uses adjacent to project limits (i.e. agricultural, industrial...).
l	Describe any park and ride facility needs identified in the TCR/CSMP, local plans, and RTP.
m	Describe the Forecasted 10 and 20-year Vehicle Miles Traveled (VMT), Annual Average Daily Traffic (AADT), and Peak Hour truck data in the TCR. Include the source and year of Forecast, and names and types of traffic and travel demand analysis tools used.
n	Has analysis on Daily Vehicle Hours of Delay (DVHD) from the Highway Congestion Monitoring Program (HICOMP) been completed and included? Y /N .

5. Local Development – Intergovernmental Review (LD-IGR): SEE ATTACHED

List LD-IGR projects that may directly or indirectly impact the proposed Caltrans project or that the proposed Caltrans project may impact. (Attach additional project information if needed.)

LD-IGR Project Information		Project
a	County-Route-Postmile & Distance to Development.	
b	Development name, type, and size.	
c	Local agency and/or private sponsor, and contact information.	
d	California Environmental Quality Act (CEQA) status and Implementation Date.	
e	If project includes federal funding, National Environmental Policy Act (NEPA) status.	
f	All vehicular and non-vehicular unmitigated impacts and planned mitigation measures including Transportation Demand Management (TDM) and Transportation System Management (TSM) that would affect Caltrans facilities.	
g	Approved mitigation measures and implementing party.	
h	Value of constructed mitigation and/or amount of funds provided.	
i	Encroachment Permit, Transportation Permit, Traffic Management Plan, or California Transportation Commission (CTC) Access approvals needed.	
j	Describe relationship to Regional Blueprint, General Plans, or County Congestion Management Plans.	
k	Inclusion in a Regional Transportation Plan Sustainable Community Strategy or Alternative Planning Strategy?	
l	Regional or local mitigation fee program in place?	

6. Community Planning:

INITIAL PID INFORMATION	
a	Has lead agency staff worked with any neighborhood/community groups in the area of the proposed improvements? Y__/N <u>X</u> . If yes, summarize the process and its results including any commitments made to the community. If no, why not? No staff has worked with any neighborhood/community groups.
b	Are any active/completed/proposed Environmental Justice (EJ) or Community-Based Transportation (CBTP) Planning Grants in the project area? Y__/N <u>X</u> . If yes, summarize the project, its location, and whether/how it may interact with the proposed project.

c	Describe any community participation plans for this PID including how recommendations will be incorporated and/or addressed. Has a context sensitive solutions (CSS) approach been applied? Y ___ /N <u>X</u> There is no need to apply a CSS approach.
FINAL PID INFORMATION	
d	How will the proposed transportation improvements impact the local community? Is the project likely to create or exacerbate existing environmental or other issues, including public health and safety, air quality, water quality, noise, environmental justice or social equity? Y___/N___. Describe issues, concerns, and recommendations (from sources including neighborhood/community groups) and what measures will be taken to reduce existing or potential negative effects. N/A. Though it may impact the local community in some manner.
e	Does this highway serve as a main street? Y___/N <u>X</u> . If yes, what main street functions and features need to be protected or preserved?

7. Freight Planning:

INITIAL PID INFORMATION	
a	Identify all modal and intermodal facilities that may affect or be affected by the project.
FINAL PID INFORMATION	
b	Describe how the design of this project could facilitate or impede Goods Movement and relieve choke points both locally and statewide through grade separations, lane separations, or other measures (e.g., special features to accommodate truck traffic and at-grade railroad crossings).
c	Describe how the project integrates and interconnects with other modes (rail, maritime, air, etc.). Do possibilities exist for an intermodal facility or other features to improve long-distance hauling, farm-to-market transportation and/or accessibility between warehouses, storage facilities, and terminals?
d	Is the project located in a high priority goods movement area, included in the Goods Movement Action Plan (GMAP) or on a Global Gateways Development Program (GGDP) route? Y___/N___. If yes, describe.
e	Is the project on a current and/or projected high truck volume route [e.g., Average Annual Daily Truck Traffic (AADTT) of 5 axle trucks is greater than 3000]? Yes ___/N___. If yes, describe how the project addresses this demand.
f	If the project is located near an airport, seaport, or railroad depot, describe how circulation (including truck parking) needs are addressed.
g	Describe any other freight issues.

8. Transit (bus, light rail, commuter rail, intercity rail, high speed rail):

INITIAL PID INFORMATION	
a	List all local transit providers that operate within the corridor. LACMTA "Metro" buses, City of Los Angeles (LADOT) "DASH" shuttles; Orange County Transportation Authority (OCTA) Freeway Express Lines
b	Have transit agencies been contacted for possible project coordination? Y <u>X</u> /N___. If no, why not? Metro is Caltrans' partner in the HOT Lanes project; LADOT is involved as the project impacts city streets. If OCTA has not been contacted, their bus operations staff need to be included in coordination activities affecting their access to their current bus stop at Figueroa/23 rd .
c	Describe existing transit services and transit features (bus stops, train crossings, and transit lines) within the corridor. LADOT has two DASH lines serving the corridor, DASH F (serves Financial District,

	Exposition Park, USC – 4 stops, two NB and two SB at Figueroa/Adams and Figueroa/23 rd St.) and DASH King-East (also stops at Figueroa/Adams and Figueroa/23 rd). Metro has three local bus lines – Line 81 (runs along Figueroa, stops at Adams & 23 rd St.); Line 37 (runs along Adams, stops at Figueroa); Line 603 (stops at 23 rd /Figueroa). Metro’s Bus Rapid Transit “Silver Line” serves the entire HOT Lanes corridor (El Monte Busway/I-10 through downtown LA to Harbor Transitway/I-110 to Artesia Transit Center); Silver Line comes off the Harbor Transitway with a NB stop at Figueroa Way and a SB stop at Adams/Flower St. OCTA’s two Freeway Express Lines 701 and 721 stop at Figueroa/23 rd Street (NB).
d	Describe transit facility needs identified in short- and long-range transit plans and RTP. Describe how these future plans affect the corridor. The HOT Lanes transit improvements are in keeping with the Metro SRTP transition from a grid network to “hub and spoke” using major employment areas and transit centers as transit hub focal points, and greater coordination between transit operators (Metro, LADOT, OCTA) to improve connectivity and travel options for their riders – and to attract new riders with more convenient & reliable service.
FINAL PID INFORMATION	
e	Describe how the proposed project integrates transit and addresses impacts to transit services and transit facilities. The Figueroa St. Overcrossing should benefit all bus lines operating on the surface streets through the project area and impacted by the same adverse conditions as other mixed-flow traffic. The project should result in improved traffic flow, provide some relief for the bottleneck congestion/ queuing problems with the current traffic exiting the NB Transitway at Adams, and should particularly benefit the Silver Line and OCTA Express Lines exiting the Transitway to serve their 23 rd St./Figueroa/Adams bus stops.
f	Have transit alternatives and improvement features been considered in this project? Y_X_/N_ If yes, describe. If no, why not? The flyover project is specifically intended to improve access and circulation for transit buses and other vehicles using the HOT Lanes/ExpressLanes for trips to/from downtown LA, and distributing passengers either directly or through connections with local bus service to their downtown destinations (and return trips). Streetscape alterations need to be carefully coordinated with bus operators where the project might impact bus stop locations, ease of access to the stops by bus operators, and safe, convenient pedestrian access to/from those bus stops.

9. Bicycle:

INITIAL PID INFORMATION	
a	Does the facility provide for bicyclist safety and mobility needs? If no, please explain.
b	Are any improvements for bicyclist safety and mobility proposed for this facility by any local agencies or included in bicycle master plans? If yes, describe (including location, time frame, funding, etc.).
c	Are there any external bicycle advocacy groups and bicycle advisory committees that should be included in the project stakeholder list? If so, provide contact information.
FINAL PID INFORMATION	
d	Will bicycle travel deficiencies be corrected? How or why not?
e	How will this project affect local agency plans for bicycle safety and mobility improvements?
f	If the project is the construction of a new freeway or modification to an existing freeway, will it sever or destroy existing provisions for bicycle travel? If yes, describe how bicycle travel provisions will be included in this project.

f	If the project is the construction of a new freeway or modification to an existing freeway, will it sever or destroy existing provisions for pedestrian travel? If yes, describe how pedestrian travel provisions will be included in this project.
g	Are there any external pedestrian advocacy groups and advisory committees that should be included in the project stakeholder list? If so, provide contact information.
h	Have ADA barriers as noted in the District's ADA Transition Plan been identified within the project limits? If not included in the project, provide justification and indicate whether District Design coordinator approval was obtained.

11. Equestrian:

	INITIAL PID INFORMATION
a	If this corridor accommodates equestrian traffic, describe any project features that are being considered to improve safety for equestrian and vehicular traffic?
	FINAL PID INFORMATION
b	Have features that accommodate equestrian traffic been identified? If so, are they included a part of this project? Describe. If no, why not?

12. Intelligent Transportation Systems (ITS):

	INITIAL PID INFORMATION
a	Have ITS features such as closed-circuit television cameras, signal timing, multi-jurisdictional or multimodal system coordination been considered in the project? Y_/N_. If yes, describe. If no, explain.
	FINAL PID INFORMATION
b	Have ITS features been identified? If so, are they included a part of this project? Describe. If no, why not?

ARTICLE 4 Transportation Planning Scoping Information Sheet

SYSTEM PLANNING RESPONSE (Jina Polimeni Veaco)

District No.	County	Route	Post Miles	Project ID No/ Expenditure Authorization
07	Los Angeles	I-110	PM 20.10 – PM 20.92	EA 27800K

SYSTEM PLANNING REVIEW AND RESPONSE:

ITEM 1A AND ITEM 1B:

System Planning documents in general are coordinated with all Caltrans Transportation Planning Offices, and our partner agencies such as the Southern California Association of Governments (SCAG), Los Angeles County Metropolitan Transportation Authority (METRO), South Coast Air Quality Management District (SCAQMD), Los Angeles County, etc. TCRs are also reviewed and commented upon by Caltrans in-house departments. Although we do not have a recently updated DSMP and TSDP, all TCRs, as a matter of Caltrans policy, should be consistent with them.

ITEM 1C.

Park-N-Ride Facilities located in the vicinity of I-110

<u>Location</u>	<u>Number of Spaces</u>
San Pedro	95
Gardena	30
Torrance	200
Rancho Palos Verdes	30
South Pasadena	18

In addition to the above, several other Park-N-Ride lots are being constructed in preparation for the opening of the Transit-way. They include one each on;

- Channel Street
- Pacific Coast Highway (PCH)
- Carson Street
- Artesia Blvd.
- Interstate 105

All these lots are in close proximity to the I-110.

ITEM 1D.

2010 AADT for PM 20.10-20.92 was 300500
 Percentage Trucks in Peak Hour for 1991 was 3.0%
 Number of Lanes: Existing = 8; Projected (10-20 years) = 8+2HOV
 VMT is Unknown.
 Traffic Analysis tool used is; Los Angeles Regional Transportation Study (LARTS).

ARTICLE 4 Transportation Planning Scoping Information Sheet

PROJECT INFORMATION

Project ID No/

Local Development – Intergovernmental Review (LD-IGR):

List LD-IGR projects that may directly or indirectly impact the proposed Caltrans project or that the proposed Caltrans project may impact. (Attach additional project information if needed.)

LD-IGR Project Information		Project
a	County-Route-Postmile & Distance to Development.	LA – 110 – 22.12
b	Development name, type, and size.	Los Angeles Event Center and Farmers Field (Convention Center and 76,000-Seat Stadium). Figueroa Street and Pico Boulevard
c	Local agency and/or private sponsor, and contact information.	AEG/Anschutz Company
d	California Environmental Quality Act (CEQA) status and Implementation Date.	Still in the environmental phase – Draft EIR is expected to be release 2012
e	If project includes federal funding, National Environmental Policy Act (NEPA) status.	No Federal Funding involved
f	All vehicular and non-vehicular unmitigated impacts and planned mitigation measures including Transportation Demand Management (TDM) and Transportation System Management (TSM) that would affect Caltrans facilities.	Extensive Transportation Demand Management (TDM) is being proposed to mitigate transportation impacts to Freeways. System Management improvements are being planned, e.g. new fixed and mobile Changeable Message Signs (CMS)
g	Approved mitigation measures and implementing party.	Southbound I-110 Off-Ramp to Olympic Blvd. Westbound I-10 Off-Ramp to Los Angeles Ave. Northbound I-110 Off-Ramp to Martin L. King Jr. Blvd. Various Changeable Message Signs. All mitigation improvements to Freeways will need to be permitted by Caltrans. City of Los Angeles has authority to condition the project to mitigate.
h	Value of constructed mitigation and/or amount of funds provided.	Promised Mitigation is estimated to cost \$8 Million.
i	Encroachment Permit, Transportation Permit, Traffic Management Plan, or California Transportation Commission (CTC) Access	Encroachment permit from Caltrans will be needed for some improvements to on-and-off ramps nearby.

	approvals needed.	
j	Describe relationship to Regional Blueprint, General Plans, or County Congestion Management Plans.	Proposed Stadium may be consistent with the infill strategy and SCAG's 2% compass blueprint.
k	Inclusion in a Regional Transportation Plan Sustainable Community Strategy or Alternative Planning Strategy?	Not Applicable, N/A
l	Regional or local mitigation fee program in place?	No regional or local mitigation fee program is in place for Downtown, Los Angeles.

LD-IGR Project Information		Project
a	County-Route-Postmile & Distance to Development.	LA – 110 – 21.00
b	Development name, type, and size.	Palmer Lorenzo – 900 Residential Unit development Flower Street and 23rd Street
c	Local agency and/or private sponsor, and contact information.	G.H. Palmer Associates
d	California Environmental Quality Act (CEQA) status and Implementation Date.	Environmental Review has been completed. Can be built anytime.
e	If project includes federal funding, National Environmental Policy Act (NEPA) status.	No Federal Funding involved
f	All vehicular and non-vehicular unmitigated impacts and planned mitigation measures including Transportation Demand Management (TDM) and Transportation System Management (TSM) that would affect Caltrans facilities.	No physical improvements to State facilities are included. Project would worsen operations at Adams and NB I-110 off-ramp intersection
g	Approved mitigation measures and implementing party.	No physical improvements to State facilities are included. Transit related improvements to be implemented by City and project.
h	Value of constructed mitigation and/or amount of funds provided.	N/A
i	Encroachment Permit, Transportation Permit, Traffic Management Plan, or California Transportation Commission (CTC) Access approvals needed.	N/A
j	Describe relationship to Regional Blueprint, General Plans, or County Congestion Management Plans.	May be consistent with the infill strategy and SCAG's 2% compass blueprint.

k	Inclusion in a Regional Transportation Plan Sustainable Community Strategy or Alternative Planning Strategy?	N/A
l	Regional or local mitigation fee program in place?	None

LD-IGR Project Information		Project
a	County-Route-Postmile & Distance to Development.	LA – 110 – 21.00
b	Development name, type, and size.	University of California Master Plan Update Figueroa Street, Exposition Boulevard to Jefferson Boulevard
c	Local agency and/or private sponsor, and contact information.	University of Southern California, USC
d	California Environmental Quality Act (CEQA) status and Implementation Date.	Environmental Review has been completed
e	If project includes federal funding, National Environmental Policy Act (NEPA) status.	No Federal Funding involved
f	All vehicular and non-vehicular unmitigated impacts and planned mitigation measures including Transportation Demand Management (TDM) and Transportation System Management (TSM) that would affect Caltrans facilities.	No physical improvements to State facilities are included.
g	Approved mitigation measures and implementing party.	No physical improvements to State facilities are included.
h	Value of constructed mitigation and/or amount of funds provided.	N/A
i	Encroachment Permit, Transportation Permit, Traffic Management Plan, or California Transportation Commission (CTC) Access approvals needed.	N/A
j	Describe relationship to Regional Blueprint, General Plans, or County Congestion Management Plans.	May be consistent with the infill strategy and SCAG's 2% compass blueprint.
k	Inclusion in a Regional Transportation Plan Sustainable Community Strategy or Alternative Planning Strategy?	N/A
l	Regional or local mitigation fee program in place?	None

LD-IGR Project Information		Project
a	County-Route-Postmile & Distance to Development.	LA -- 110 -- 21.00
b	Development name, type, and size.	a) New Metro Expo Line Stations at: 37th/Jefferson and 23rd Street
c	Local agency and/or private sponsor, and contact information.	Metropolitan Transportation Authority (Metro)
d	California Environmental Quality Act (CEQA) status and Implementation Date.	CEQA Review has been completed
e	If project includes federal funding, National Environmental Policy Act (NEPA) status.	NEPA Review has been completed
f	All vehicular and non-vehicular unmitigated impacts and planned mitigation measures including Transportation Demand Management (TDM) and Transportation System Management (TSM) that would affect Caltrans facilities.	No physical improvements to State facilities are included.
g	Approved mitigation measures and implementing party.	No physical improvements to State facilities are included.
h	Value of constructed mitigation and/or amount of funds provided.	N/A
i	Encroachment Permit, Transportation Permit, Traffic Management Plan, or California Transportation Commission (CTC) Access approvals needed.	N/A
j	Describe relationship to Regional Blueprint, General Plans, or County Congestion Management Plans.	Consistent with SCAGs Compass Blueprint
k	Inclusion in a Regional Transportation Plan Sustainable Community Strategy or Alternative Planning Strategy?	N/A
l	Regional or local mitigation fee program in place?	None

LD-IGR Project Information		Project
a	County-Route-Postmile & Distance to Development.	LA – 110 – 20.00
b	Development name, type, and size.	Los Angeles Memorial Sports Arena – Redevelopment Demolition of Existing Sports Arena with: Option 1: Multi-Use Space capable of hosting community festivals, parades, etc. Option 2: Soccer Stadium with 22,000 seat capacity
c	Local agency and/or private sponsor, and contact information.	Los Angeles Memorial Coliseum Commission
d	California Environmental Quality Act (CEQA) status and Implementation Date.	CEQA Review has been completed
e	If project includes federal funding, National Environmental Policy Act (NEPA) status.	N/A
f	All vehicular and non-vehicular unmitigated impacts and planned mitigation measures including Transportation Demand Management (TDM) and Transportation System Management (TSM) that would affect Caltrans facilities.	Project is conditioned to improve I-110 Martin Luther King Jr. Off-Ramps.
g	Approved mitigation measures and implementing party.	Los Angeles Memorial Coliseum Commission
h	Value of constructed mitigation and/or amount of funds provided.	Approximately \$200,000
i	Encroachment Permit, Transportation Permit, Traffic Management Plan, or California Transportation Commission (CTC) Access approvals needed.	Encroachment Permit from Caltrans will be needed
j	Describe relationship to Regional Blueprint, General Plans, or County Congestion Management Plans.	Infill Development
k	Inclusion in a Regional Transportation Plan Sustainable Community Strategy or Alternative Planning Strategy?	N/A
l	Regional or local mitigation fee program in place?	None

LA# 0329

LOS ANGELES COUNTY RTP PROJECTS			PROJECT COST (\$1,000'S)	
SYS-ITEM#	RTP-ID	ROUTE	DESCRIPTION	
S	LA00329	210	LOS ANGELES WB PARRO FREEWAY FROM THE NORTH END OF 21ST STREET TO THE NORTH END OF THE 7TH STREET I/C. ADD AUXILIARY LANE AND RECONSTRUCT RAMP (EA# 201, PPNO 3344)	\$18,447
S	LA0076	110	IN DOWNTOWN LA-ON ROUTE 110-TEMPLE STREET. ACCESS IMPROVEMENTS MODIFYING TEMPLE ST-OFF-RAMP (NON-CAPACITY) (EA 22240 PPNO 2961)	\$18,200
S	LA02713	110	IN LA-ON ROUTE 110-CONDUCT NECESSARY PLANNING, ENGINEERING AND IMPLEMENT COMPREHENSIVE CORRIDOR MANAGEMENT PLAN FOR ARROYO SECO AS I/OB C/PWAY (E/P/S/E/ONLY)	\$1,400
S	LA008099	126	SR-126/COMMERCE CTR DR NEW I/C. CONSTRUCT A PARTIAL CLOVERLEAF, GRADE SEPARATED I/C AND WIDEN ST 126 FROM .76 KM EAST OF I/C TO .85 KM WEST 4-6 LANES. (2001 CFP 8099) (PPNO 3118)	\$37,600
S	LA00480	106	SR-106 IMPROVEMENTS - LOS ANGELES COUNTY IN TO CASTAJO CREEK BRIDGE IMPROVES INTERSECTIONS ADD LIGHTS, ARTICANES AND SIDEWALKS FROM RAMP TO I/OB TO I/OB (EA# 10, 106, 111, 114)	\$35,500
S	17870	134	RTE 134 BETWEEN I-5 & PACIFIC AVE MODIFY 134/SAN FERNANDO RD I/C & GRADE SEP AT UPRR SAN FERNANDO/FLOW-ER (WIDEN 1 BRIDGE & T OFF RAMP) NON-CAPACITY INCREASING (PPNO 9814)	\$55,462
S	LA00674	138	ROUTE 138 WIDEN FROM 2 LANES TO 4 LANES WIDENING AT 010 IN BRIDGES (SEG. 118) (EA# 12726) PPNO 3330 (SAFETY) (EA# 2512)	\$14,365
S	LA00180	138	ROUTE 138 WIDENING FROM 2 TO 4 LANES WITH MEDIAN TURN LANE-175TH STREET EAST TO LARGO VISTA ROAD (SEG. 12). EA# 127271, PPNO 08940.	\$37,695
S	LA0045	138	ROUTE 138 FROM AVE. TO ROUTE 138 WIDEN 210 TO 4 THRU LANES WITH MEDIAN TURN LANE (EA# 12721, 12722, 12723, 12724, 12725, 12726, 12727, 12728, 12729, 12730, 12731, 12732, 12733, 12734, 12735, 12736, 12737, 12738, 12739, 12740, 12741, 12742, 12743, 12744, 12745, 12746, 12747, 12748, 12749, 12750, 12751, 12752, 12753, 12754, 12755, 12756, 12757, 12758, 12759, 12760, 12761, 12762, 12763, 12764, 12765, 12766, 12767, 12768, 12769, 12770, 12771, 12772, 12773, 12774, 12775, 12776, 12777, 12778, 12779, 12780, 12781, 12782, 12783, 12784, 12785, 12786, 12787, 12788, 12789, 12790, 12791, 12792, 12793, 12794, 12795, 12796, 12797, 12798, 12799, 12800, 12801, 12802, 12803, 12804, 12805, 12806, 12807, 12808, 12809, 12810, 12811, 12812, 12813, 12814, 12815, 12816, 12817, 12818, 12819, 12820, 12821, 12822, 12823, 12824, 12825, 12826, 12827, 12828, 12829, 12830, 12831, 12832, 12833, 12834, 12835, 12836, 12837, 12838, 12839, 12840, 12841, 12842, 12843, 12844, 12845, 12846, 12847, 12848, 12849, 12850, 12851, 12852, 12853, 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ATTACHMENT F

PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT
(PEAR)



PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT

1. Project Information

District 07	County LA	Route 110	PM 20.2/20.9	EA 27800K
Project Title: <i>Brief descriptive phrase, e.g., CAPM, Curve Re-alignment, Passing Lane, etc.</i> HOV off-ramp connector				
Project Manager Mirna Dagher			Phone # 7-2786	
Project Engineer Mohamed Ahmed			Phone # 7-5975	
Environmental Office Chief/Manager Garrett Damrath			Phone # 7-9016	
PEAR Preparer Allison Morrow			Phone # 7-3247	

2. Project Description

Purpose and Need

The current termination of the northbound I-110 HOV lanes at Adams Boulevard presents a particularly challenging bottleneck, as approximately half of the HOV lane traffic exits here to access downtown Los Angeles via Figueroa Street. Queuing and congestion is currently experienced on both the off-ramp and the HOV lanes themselves. Increasing capacity at this location is key to ensuring the HOV lanes can manage delay and serve additional users, should the HOV lanes be converted into high-occupancy toll (HOT) lanes. The purpose of the project is to alleviate congestion and reduce the queuing and delay in the HOV lanes and off-ramp.

Description of work

The project proposes to construct an elevated off-ramp connector on the northbound I-110 HOV facility between 30th Street and Figueroa Street OC in downtown Los Angeles, which would bypass both the congested Adams Boulevard and the Flower Street and Adams bottleneck intersection and connect directly to Figueroa Street, a main downtown thoroughfare, or the existing HOV bypass (Figueroa Way).

Alternatives

There are currently four alternatives proposed for this project, including the “no-build” alternative.

Alternative 1 – No-build

Alternative 1 would not construct a fly-over connector. The existing I-110 configuration would remain.

Alternative 2 – Two-lane Minimum Build Off-ramp Connector

This alternative proposes a two-lane (NB I-110 Transitway (HOV) to Figueroa Street) fly-over off-ramp connector (approximately 1,370 feet in length), connecting from the end of the existing

viaduct and landing at the existing HOV bypass (Figueroa Way). It would bypass the existing at-grade intersections of Harbor Transitway/Adams and Adams/Flower.

The alignment of the proposed fly-over structure is designed for better spacing of the columns, which are currently based upon the existing geographic conditions without the need to acquire any right-of-way. The proposed connector would provide two standard (12 foot) lanes and (5 foot left and 10 foot right) shoulders.

The portion of the HOV striping on the existing transitway will be restriped to provide two HOV lanes for the proposed flyover off-ramp connector.

The estimated project cost for this alternative for current year 2010 and the escalated project cost for projected year 2015 would be approximately \$27-35 million and \$34-42 million, respectively.

Impacts to existing structures as well as roadways are anticipated to be minimal. Additional right-of-way acquisition would not be required, and impacts to utilities are expected to be minimal.

Alternative 3 – Extension of the Viaduct and One-lane Minimum Build Off-ramp Connector

This alternative proposes two elevated structures: the extension of the existing HOV viaduct (approximately 885 feet in length) from the end of the existing structure to approximately 105 feet north of Adams Boulevard, and a one-lane flyover structure (approximately 646 feet in length), coming off the proposed viaduct extension and landing at the existing HOV bypass (Figueroa Way), effectively bypassing the Harbor Transitway/Adams and Adams/Flower intersections. The alignment of the proposed viaduct extension would follow the centerline of the existing I-110.

The proposed one-lane connector would provide a standard (12 foot) lane and (4 foot left and 8 foot right) shoulders. The existing I-110 mainline between 28th Street and Figueroa Street would be reconfigured as 5 twelve-foot lanes and ten-foot inside and outside shoulders.

Striping on the existing Transitway would be continued and transitioned to one lane when entering the proposed fly-over off-ramp connector from the viaduct extension.

The estimated project cost for this alternative for the current year 2010 and the escalated project cost for projected year 2015 would be \$95-110 million and \$120-138 million, respectively.

Additional roadway widening on I-110 mainline between 28th and Figueroa Streets would be needed. The portion of the existing light rail on Flower Street would be impacted and replacement of the portion of Flower Street would be needed. The following structures would be replaced:

- Adams Blvd OC

- Flower Street OC

- Portion of existing overhanging structure (Flower St)

- Portion of retaining walls along both sides of existing I-110 mainline between 28th and Figueroa Streets

As a result of the Adams Blvd and Flower St OC replacements, a temporary bridge structure would be built to maintain one open lane and continued operation of the LRT during construction.

Additional right-of-way acquisition would be minimal. The existing utilities along Flower Street and on its OC, and along or on Adams Blvd and its OC would be impacted. The existing LRT on Flower Street would be impacted and the associated costs (flagging, signals, etc.) would be included as part of the right-of-way cost.

Alternative 4 – Extension of the Viaduct and One-lane Minimum Build Off-ramp Connector to Figueroa/23rd Street Intersection

This alternative proposes two elevated structures: the extension of the viaduct (approximately 1,060 feet in length) from the end of the existing Transitway to approximately 480 feet north of the Adams Blvd OC, and a one-lane flyover structure (1,040 feet in length), coming off the side of the proposed viaduct extension and entering at the southwest corner of the intersection of Figueroa and 23rd Streets, bypassing the existing at-grade bottleneck intersections (Harbor Transitway/Adams and Adams/Flower).

The one-lane elevated off-ramp connector would be built as a single-lane freeway exit from the proposed viaduct extension, which is approximately 90 feet north of Adams Blvd, and land at the southwest corner of the intersection of Figueroa and 23rd Streets. The alignment of the proposed viaduct would follow the centerline of the existing I-110 freeway. The proposed single-lane off-ramp connector will provide a 12-foot lane and a 4-foot left and 8-foot right shoulder. The I-110 mainline will be configured to five twelve-foot lanes and 10-foot inside and outside shoulders.

Capacity along Figueroa Street will also be improved by optimizing signal phasing and timing to accommodate and regulate HOV traffic entering the intersection.

The estimated project cost for this alternative for the current year 2010 and escalated cost for the projected year 2015 is \$30-35 million and \$35-40 million, respectively.

Additional roadway widening on the I-110 mainline between 28th and Figueroa Streets would require right-of-way. A portion of the existing Light Rail Transit line on Flower Street would be impacted and replacement of that portion of Flower Street would be necessary. Due to the roadway widening and the proposed viaduct extension, the following structures would be replaced:

- Adams Blvd OC
- Flower St OC
- Portion of existing overhanging structure (Flower St)
- Portion of retaining walls along both sides of existing I-110 mainline between 28th and Figueroa Streets

As a result of the Adams Blvd and Flower St OC replacements, a temporary bridge structure would be built to maintain one open lane and continued operation of the LRT during construction.

Additional right-of-way acquisition would be minimal. The existing utilities along Flower Street and on its OC, and along or on Adams Blvd and its OC would be impacted. The existing LRT on Flower Street would be impacted and the associated costs (flagging, signals, etc.) would be included as part of the right-of-way cost.

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	<input type="checkbox"/>		
Categorical Exemption	<input type="checkbox"/>	Categorical Exclusion	<input type="checkbox"/>
Environmental Document			
Initial Study or Focused Initial Study with Negative Declaration or Mitigated ND	<input checked="" type="checkbox"/>	Environmental Assessment with Finding of No Significant Impact	<input checked="" type="checkbox"/>
Environmental Impact Report	<input type="checkbox"/>	Environmental Impact Statement	<input type="checkbox"/>
CEQA Lead Agency (if determined):		Caltrans	
Estimated length of time (months) to obtain environmental approval:		18	
Estimated person hours to complete identified tasks:		4792	

4. Special Environmental Considerations

Significant public comment might force the preparation of a comprehensive Visual Impact Assessment.

Impact of historical properties in the project vicinity would mandate a Finding of Effect and a Memorandum of Agreement and require consultation with the State Historic Preservation Officer regarding mitigation and could extend the project approval schedule anywhere from 6 months to one year.

5. Anticipated Environmental Commitments

The following commitments apply to all build alternatives unless otherwise noted.

- Geology/soils: temporary construction-related erosion should be reduced with the implementation of NPDES/Best Management Practices.
- Hazardous waste: Standard specifications and/or testing for aerially deposited lead, asbestos-containing materials, and thermoplastic traffic striping removal will be included in the project. The proximity of 2 LUST sites and the possibility of groundwater present require the preparation of a site investigation and groundwater sampling to establish a baseline condition for SWPPP permitting compliance.
- Stormwater/water quality: Design, treatment, and construction BMPs will be implemented where feasible.
- Cultural resources: If the project results in an adverse effect on a National Register listed or eligible property, a Memorandum of Agreement (MOA) will be required. The MOA is an agreement between Caltrans and the State Historic Preservation Officer for avoiding, reducing, mitigating, or accepting adverse effects on historic properties.
- Biological resources: If clearing or grubbing of vegetation occurs during bird nesting season (March 1-September 1), surveys will be required to identify and avoid impacts. Localized and temporary project delays could occur.

6. Permits and Approvals

It is anticipated that work on or around the Figueroa Way HOV bypass and Figueroa Street will necessitate a permit or coordination agreement with the City of Los Angeles. It is not anticipated that any resource agency permits or approvals would be required to construct the project.

7. Level of Effort: Risks and Assumptions

Given that the proposed project is located in a highly urbanized and disturbed area of Los Angeles County, it is assumed that the risks associated with the project are relatively low. According to preliminary design plans, little to no right-of-way will be acquired. The project does not fall within a sensitive area such as the Coastal Zone or is subject to the jurisdiction of a regulatory agency (e.g., Army Corps of Engineers for impacts to jurisdictional waters of the U.S.). Effort shall be made to avoid impacting any National Register-listed resource so as to avoid the lengthy FOE/MOA process.

8. PEAR Technical Summaries

The following technical summaries apply to all build alternatives unless otherwise noted.

8.1 Land Use:

Land use in the project area consists of commercial and residential uses in the immediate adjacent vicinity, along with manufacturing and public facilities also present. The area is generally built-out, and opportunities for development are generally limited to redevelopment or infill projects. The Exposition/University Park redevelopment project area is in close proximity to this proposed project, and intends to retain and develop additional affordable housing, improve community facilities, and promote economic development. The project area is adjacent to the University Park Historical Preservation Overlay Zone. Please see Section 8.17, Context-Sensitive Solutions, of this document for further information.

The proposed project intends to alleviate gridlock at a highly congested intersection and is generally consistent with area transportation and community/general plans. No changes to existing or planned land uses are anticipated to occur.

There are no parks or recreational facilities that will be impacted by the project, and so a separate Section 4(f) evaluation with respect to parks or recreational facilities is not anticipated to be necessary.

8.2 Growth:

This project is located in a fully urbanized area and intends to alleviate existing congested conditions. No new access would be provided. Construction of the project would not contribute to growth-related effects in the area.

8.3 Farmlands/Timberlands:

There are no farmlands or timberlands located in the project vicinity.

8.4 Community Impacts:

Previous studies in the area have indicated the presence of environmental justice populations, and so the potential for impacts does exist. However, the acquisition of right-of-way associated with the project is little to none and much of the work will be done within the prism of the roadway. Moreover, the existing mainline in this area is depressed, and coupled with the existing visual character of the area, the addition of an elevated structure is not expected to result in a significant visual impact to environmental justice populations.

8.5 Visual/Aesthetics:

Given the urbanized area and lack of scenic resources in the project area, the extension of the HOV roadway would not adversely impact the visual resources within the project area. The aesthetic treatment of any new construction should consider the urban context and historical character of the area.

8.6 Cultural Resources:

In accordance with Section 106 of the National Historic Preservation Act, all interested parties and interested Native American parties shall be contacted by the District Native American Coordinator early in the project development process to determine whether significant cultural properties fall within the project area.

The proposed project area is located in a highly urbanized area of Los Angeles County. The record search indicated that St John's Episcopal Church, located at 514 West Adams Boulevard and is listed on the National Register of Historic Places, may be impacted either directly or indirectly by the construction of Alternatives 2 and 3.

The Flower Street and Adams Boulevard overcrossings were constructed in 1956 and are currently listed as Category 5 structures by the Historic Significance Code, but would need to be reevaluated for the purposes of this project as they have reached 50 years of age since the bridge survey was completed. A classification of Category 5 indicates that the bridge is not eligible for listing in the National Register.

If a National Register-listed structure is impacted by the proposed project, preparation of a Section 4(f) evaluation may be required.

8.7 Hydrology and Floodplain:

The proposed project is not located within a regulatory floodway or Special Flood Hazard Area. Revisions to FIRM maps would not be required as a result of this project.

8.8 Water Quality and Storm Water Runoff:

If the disturbed soil area resulted from the proposed project is greater than one acre, the project must comply with NPDES Construction General Permit No. CAS000002 and NPDES Caltrans Statewide Permit no. CAS000003.

Best Management Practices (design pollution prevention BMPs and construction site BMPs) are to be implemented at the project site to the maximum extent practicable and to the extent that implementation is consistent with existing Caltrans policies.

8.9 Geology, Soils, Seismic and Topography:

The area within the project limits have been mapped as surficial sediments consisting mainly of alluvial gravel, sand and clay deposits with some cobbles. The project is located in a seismically active area, and the geologic processes which have caused earthquakes in the past can be expected to continue. The Puente Hills Blind Thrust System is the closest to the site and has a Maximum Magnitude of 7.3, per the 2007 Fault Database prepared by Caltrans. There are no known earthquake faults crossing the project, and the potential for ground rupture is non-existent to very low at this site.

A 1999 Seismic Hazard Map – Hollywood Quadrangle (Department of Conservation – California Geological Survey) shows there is not a potential for liquefaction within the project limits. Per a regional study conducted by the U.S. Geological Survey, the relative liquefaction susceptibility along these project limits is considered to be low to very low.

Groundwater will not be impacted by the construction of this project.

There will be no change to existing rate of erosion as a result of this project. Construction activities could expose soils to temporary erosion; however, this can be reduced by implementing NPDES and BMPs during project construction.

In general, there are no geological or geotechnical conditions that would preclude the construction of the proposed project.

8.10 Paleontology:

Previous studies in the general project area have indicated a low probability of paleontological resources in the area. All standard measures to avoid impacts to paleontological resources will be adhered to.

8.11 Hazardous Waste/Materials:

Two leaking underground storage tanks are within the project vicinity. The California Sulphur Facility is located approximately 800 feet east of I-110 between Adams Blvd and 23rd Street, at 2509 Grant Ave in Los Angeles. The contaminant of concern is diesel and the affected media is aquifer used for drinking water supply. Site verification monitoring started on 5/22/2000 and case closure was issued on 8/22/2003. Mobil-Lynch Noel is located approximately 3100 feet east of I-110 between Adams Blvd and 25th Street, at 400 Adams Blvd in Los Angeles. The contaminant of concern is gasoline and the affected media is soil. The site assessment was initiated on 12/29/1991 and remediation was continuing as of 7/7/1995. No information indicating site closure was found.

Aerially deposited lead (ADL) in the shallow soil layer is a concern. The degree of lead content will determine the handling procedures of the soil, as well as applicable health and safety procedures for the contractor and appropriate contractor qualifications for management of ADL waste.

Existing yellow traffic stripes and pavement markings are suspected of containing lead-based or thermoplastic paint. Those applied prior to 1996 have a high lead content and should be treated as hazardous waste. Yellow thermoplastic striping and pavement marking should be treated as hazardous waste due to its high chromium content, regardless of the year of installation. These materials may need to be removed and disposed of at a Class 1 facility.

Existing expansion joints for the proposed bridge removal are suspected to have asbestos-containing material (ACM) coating. Existing utility conduits and bridge railings are also suspected to contain ACM. If asbestos is present, it needs to be abated and disposed of properly. A project-specific ACM survey will be required during construction prior to structure demolition activities.

In the event that dewatering of groundwater is required due to the construction of deep foundations, a site investigation and groundwater sampling will be required to characterize the water quality.

8.12 Air Quality:

Los Angeles County is designated as an attainment-maintenance area for the federal NO₂ and CO standards. However, the county is designated as serious nonattainment for the federal PM₁₀ standard, severe nonattainment for the federal 8-hour ozone standard, and nonattainment for the federal PM_{2.5} standard. Therefore a CO and PM "Hot-spot" analysis is required, which will be deferred to the Air Quality Report, the comprehensive air quality technical document in support of the NEPA/CEQA environmental document.

Project inclusion in the regional emissions analysis of the Regional Transportation Plan and the Regional Transportation Improvement Program is paramount for the proposed project to complete the PA/ED phase due to funding and planning requirements. At this time, the project is not included and therefore does not meet regional conformity requirements. Based on the build alternatives proposed at this time, the proposed project does not meet the conditions for an exception to this rule.

FHWA has promulgated Interim Guidance on Air Toxic Analysis on 2/3/2006 and updated on 9/30/2009. It requires the MSATs to be addressed in NEPA documents. The Interim Guidance offers the following three-tiered approach for determining the appropriate level of analysis for impacts from MSAT, based on project-specific circumstances:

- No analysis for projects with no potential for meaningful MSAT effects,
- Qualitative analysis for projects with low potential MSAT effects, or
- Quantitative analysis to differentiate alternatives for projects with higher potential MSAT effects.

The process to determine required level of analysis to appropriately address the potential impacts by MSATs is deferred to the AQR.

8.13 Noise and Vibration:

Due to the non-noise-sensitive commercial land and lack of noise sensitive receptors within the project area, no noise impact analysis is required.

8.14 Energy and Climate Change:

This project is not considered to be a "major project" for the consumption of energy during either construction or operation and therefore an energy technical report will not be required. This project is classified as a congestion-relief project and is designed to reduce VHT. An analysis of CO2 emissions will be required for the project to determine its impact on climate change (if any).

8.15 Biological Environment:

Due to the highly urbanized project area, the only biological resource of concern is the potential for grubbing of vegetation and subsequent impacts to nesting birds. Grubbing of vegetation should be minimized to the greatest extent possible, and should not occur during bird nesting season (March 1-September 1). If grubbing should occur during nesting season, bird surveys will be required and possible impacts to the project schedule may occur.

8.15 Cumulative Impacts:

The proposed project area also includes other planned or reasonably foreseeable projects on and off the State Highway System. These projects include, but are not limited to, conversion of the HOV lanes to HOT lanes and associated work at Adams Boulevard/Flower Street/HOV bypass, the light rail transit line currently under construction on Flower Street (Exposition Line), [and etc]

8.17 Context Sensitive Solutions:

The west edge of the project area abuts the University Park Historical Preservation Overlay Zone. This designation seeks to protect and enhance the use of buildings, structures, natural features, and areas that are reminders of the city's history. Architectural treatment of the HOV roadway, bridge, retaining wall, bridge railings, and lighting should reflect the goals of the Historical Preservation Overlay Zone.

9. Summary Statement for PSR or PSR-PDS

The proposed project is located in a highly developed and urbanized area. Due to a potential for impacts to cultural resources, air quality, community/environmental justice populations, hazardous materials, and an existing light rail transit line, the anticipated environmental document is an Initial Study (CEQA)/Environmental Assessment (NEPA) leading to a Negative Declaration/Finding of No Significant Impact. The environmental approval process is anticipated to take approximately 18-24 months to complete.

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

Cultural Resources specialist	<i>Gay Johnson</i>	Date: 6/25/10
Biologist	<i>Paul Co</i>	Date: 6/28/10
Community Impacts specialist	<i>Allen</i>	Date: 6/28/10
Noise and Vibration specialist	<i>John for Jim</i>	Date: 6/28/10
Air Quality specialist	<i>Ann</i>	Date: 6/28/10
Paleontology specialist/liaison	<i>John</i>	Date: 6/28/10
Water Quality specialist	<i>Jay a for Shirley Alt</i>	Date: 6/29/10
Hydrology and Floodplain specialist	<i>Raymond</i>	Date: 6/29/10
Hazardous Waste/Materials specialist	<i>Jim</i>	Date: 6/28/2010
Visual/Aesthetics specialist	<i>George Des</i>	Date: 6-28-2010
Energy and Climate Change specialist	n/a	Date:
Geotechnical specialist	<i>[Signature]</i>	Date: 6/30/2010
PEAR Preparer (Name and Title)	<i>Alexis Mammone, environ. planner</i>	Date: 6/30/10

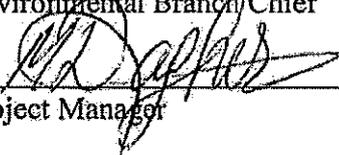
12. Review and Approval

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 an EA or EIS, I verify that the HQ DEA Coordinator has concurred in the Class of Action.



Environmental Branch Chief

Date: 6/30/2010



Project Manager

Date: 6/30/2010

REQUIRED ATTACHMENTS:

Attachment A: PEAR Environmental Studies Checklist

Attachment B: Estimated Resources by WBS Code

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	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Growth	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Farmlands/Timberlands	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Community Impacts	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Community Character and Cohesion	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Relocations	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Environmental Justice	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Utilities/Emergency Services	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	M	
Visual/Aesthetics	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Cultural Resources:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Archaeological Survey Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	M	
Historic Resources Evaluation Report	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Historic Property Survey Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
Historic Resource Compliance Report	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Section 106 / PRC 5024 & 5024.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	M	
Native American Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Finding of Effect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	M	
Data Recovery Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Memorandum of Agreement	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	M	
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Hydrology and Floodplain	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Water Quality and Stormwater Runoff	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Geology, Soils, Seismic and Topography	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Paleontology	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
PER	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
PMP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Hazardous Waste/Materials:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
ISA (Additional)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
PSI	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Air Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Noise and Vibration	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Energy and Climate Change	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Biological Environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Natural Environment Study	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	NES-MI
Section 7:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Formal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Informal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
No effect	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Section 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
USFWS Consultation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
NMFS Consultation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Species of Concern (CNPS, USFS, BLM, S, F)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	

Environmental Studies for PA&ED Checklist					
	Not anticipated	Memo to file	Report required	Risk* L M H	Comments
Wetlands & Other Waters/Delineation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
404(b)(1) Alternatives Analysis	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Invasive Species	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Wild & Scenic River Consistency	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Coastal Management Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
HMMP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
DFG Consistency Determination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
2081	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Cumulative Impacts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Context Sensitive Solutions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	M	
Section 4(f) Evaluation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	M	
Permits:					
401 Certification Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
404 Permit Coordination, IP, NWP, or LOP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
1602 Agreement Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Local Coastal Development Permit Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
State Coastal Development Permit Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
NPDES Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
US Coast Guard (Section 10)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
TRPA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
BCDC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	

ATTACHMENT B - Resources by WBS Code

EA: 27800K Description: I-110 HOV connector	Assigned Unit	Senior	Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water	Noise/Air	Paleo	Sup Svcs	Total	Begin Date	End Date	Duration (days)	WBS current 11/2/008		
																WBS current	11/2/008	
Project Management																		
	100.05.05 - Project Init. & Png.																	
	100.05.10 - PID Cmnt. Exec. & Crt.																	
	100.05.15 - PID Cmnt. Closeout																	
	100.10.05 - P&SE Cmnt. Init. & Png.																	
	100.10.10 - P&SE Cmnt. Exec. & Crt.																	
	100.10.15 - P&SE Cmnt. Closeout																	
	100.10.20 - Project Shelving (P&SE)																	
	100.10.25 - Project Shelving (P&SE)		20															
	100.10.30 - Updat Admiv Rec during P&SE																	
	100.10.35 - Execd Coop Agre for P&SE Process																	
	100.15.05 - PS&E Cmnt. Init. & Png.																	
	100.15.10 - PS&E Cmnt. Exec. & Crt.																	
	100.15.15 - PS&E Cmnt. Closeout																	
	100.15.20 - Project Shelving (PS&E)																	
	100.15.25 - Project Shelving (PS&E)																	
	100.15.30 - Updat Admiv Rec during PS&E																	
	100.15.35 - Execd Coop Agre for PS&E Process																	
	100.20.05 - Const. Cmnt. Init. & Png.																	
	100.20.10 - Const. Cmnt. Exec. & Crt.																	
	100.20.15 - Const. Cmnt. Closeout																	
	100.20.20 - Project Shelving (Construction)																	
	100.20.25 - Project Shelving (Construction)																	
	100.20.30 - Updat Admiv Rec during Const																	
	100.20.35 - Execd Coop Agre for Const Process																	
	100.25.05 - RW Cmnt. Init. & Png.																	
	100.25.10 - RW Cmnt. Exec. & Crt.																	
	100.25.15 - RW Cmnt. Closeout																	
	100.25.20 - Project Shelving (Right of Way)																	
	100.25.25 - Project Shelving (Right of Way)																	
	100.25.30 - Updat Admiv Rec during RW																	
	100.25.35 - Execd Coop Agre for R/W Process																	
	100.25.50 - Execd Coop Agre for R/W Runmt																	
	Total Project Management	0	42	5	5	5	5	2	6	0	24	20						
Technical Preliminary Engineering Studies and Prepare Draft Project Report																		
	160.05.05 - Approv PID Review																	
	160.05.10 - Geotechnical Information Review																	
	160.05.20 - Traffic Data & Forecasts Review																	
	160.05.30 - Project Scope Review																	
	160.10.20 - Value Analysis																	
	160.10.25 - Hydraulics/Hydro Study																	
	160.10.30 - Hwy Planting Des Concepts																	
	160.15.20 - Draft Project Report																	
	160.15.25 - Draft PR Circ. Rev. & App																	
	160.30.05 - Maps for ESR																	
	160.30.10 - Surveys/Maps for Env Studies																	
	160.30.15 - Prop Access Rights for Env/Eng Studies																	
	160.40 - NEPA Delegation																	
	Total Prelim Eng Studies	8	0	0	0	0	0	10	0	0	0	0						

Assigned Unit	Senior	Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water	Noise/Air	Paleo	Sup Svcs	Total	Begin Date	End Date	Duration (days)
Performance Environmental Studies and Programs Draft Environmental Document														
165.05.05 - Project Information Review														
165.05.10 - Pub & Agency Scoping														
165.05.15 - AIs for Further Study														
165.10.15 - CIA, Land Use & Growth														
165.10.25 - Noise Study								350			350			
165.10.30 - Air Quality Study														
165.10.35 - Water Quality Studies														
165.10.40 - Energy/Climatic Change Studies														
165.10.45 - Sum Geotech Report														
165.10.50 - Preliminary Site Investigation HW														
165.10.55 - Draft RW Relocation Impact Eval														
165.10.65 - Paleontology Study														
165.10.70 - Wild & Scenic River Coordination														
165.10.75 - Envir Commitments Record														
165.10.99 - Other Env Studies														
165.15.05 - Biological Assessment														
165.15.10 - Wetlands Study														
165.15.15 - Resource Agency Coord														
165.15.20 - NES Report														
165.15.99 - Other Biological Studies														
165.20.05 - Archaeology Survey														
165.20.05.05 - APE Map														
165.20.05.10 - NA Consultation														
165.20.05.15 - Records & Literature Search														
165.20.05.20 - Field Survey														
165.20.05.25 - ASR														
165.20.05.99 - Other Archy Survey Products														
165.20.10 - Extended Phase I Archy Studies														
165.20.10.05 - Native American Consultation														
165.20.10.10 - Extended Phase I Proposal														
165.20.10.15 - XPI Field Investigation														
165.20.10.20 - XPI Materials Analysis														
165.20.10.25 - Extended Phase I Report														
165.20.10.99 - Other Phase I Archy Products														
165.20.15 - Phase II Archy Studies														
165.20.15.05 - NA Consultation														
165.20.15.10 - Phase II Proposal														
165.20.15.15 - Field Investigation														
165.20.15.20 - Materials Analysis														
165.20.15.25 - Phase II Report														
165.20.15.99 - Other Phase II Archy Products														
165.20.20 - H61 & Architectural Studies														
165.20.20.05 - Prelim APE Study Area Maps - Archi														
165.20.20.10 - Hist Res Eval Rpt - Archy														
165.20.20.15 - Hist Res Eval Rpt - Archi														
165.20.20.20 - Bridge Evaluation														
165.20.20.99 - Other H & A Study Products														
165.20.25 - Cultural Res Come Docs														
165.20.25.05 - Final APE Maps														
165.20.25.10 - PRC 5024.5 Consult														
165.20.25.15 - HPSR/HRCR														
165.20.25.20 - Finding of Effect														
165.20.25.25 - Archy Data Recovery Plan														
165.20.25.30 - MOA														
165.20.25.99 - Other Cult Res Camp Products														
165.25.05 - Draft ED Analysis														
165.25.10 - 3(f) Evaluation														
165.25.15 - GE/CE Determination														
165.25.20 - Env Quality Control & Other Reviews														
165.25.25 - Approval to Circ Resolution														

Assigned Unit	Senior	Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water	Noise/Air	Pateo	Sup Svcs	Total	Begin Date	End Date	Duration (days)
165.25.30 - Env Coordination														0
165.25.99 - Other DED Products														0
165.30 - NEPA Delegation														0
Total Env Studies & Prep DED	0	1115	40	1110	350	0	300	350	0	63	350			0
Permits, Agreements, and Route Adoptions during PAF&ED Consent														
170.05 - Required Permits (63)														0
170.10.09 - US Army Corps 404 Permit														0
170.10.10 - US Forest Service Permit(s)														0
170.10.15 - US Coast Guard Permit														0
170.10.20 - DFG-1800 Agreement(s)														0
170.10.24 - Coastal Zone Development Permit														0
170.10.30 - Local Agency Consensus/Permit														0
170.10.40 - Waste Discharge (NPDES) Permit(s)														0
170.10.45 - US Fish & Wildlife Service Approval														0
170.10.50 - RWQCB 401 Permit														0
170.10.60 - Updated ECR														0
170.10.95 - Other Permits														0
170.45 - MOU from TERO Office														0
170.55 - NEPA Delegation														0
Total Permits, Agreements & Route Adoptions	0	0	0	0	0	0	0	0	0	0	0			0
Circulate Draft Environmental Document and Select Preferred Project Alternative														
175.05.05 - Master List & Invitation Lists														0
175.05.10 - Notices Pub Hear & DED Avail														0
175.05.15 - DED Pub & Circulation														0
175.05.20 - Fed Consistency Draft (Coastal)														0
175.05.99 - Other DED Circulation Products														0
175.10.05 - Need for Pub Hearing Determination														0
175.10.10 - Pub Hearing Logistics														0
175.10.15 - Displays for Pub Hearing														0
175.10.20 - 2nd Notice Pub Hear & Avail														0
175.10.25 - Map Display & Hearing Plan														0
175.10.30 - Display Pub Hear Maps														0
175.10.35 - Public Hearing														0
175.10.40 - Record of Public Hearing														0
175.10.99 - Other Pub Hearings Products														0
175.15 - Responses to Pub Hear Comments														0
175.20 - Project Preferred Alternative														0
175.25 - NEPA Delegation														0
Total DED & Preferred Alt	0	162	0	0	0	0	0	0	0	0	28			0
Complete and Approve Project Report and Final Environmental Document														
180.05.10 - Approved Project Rep														0
180.05.15 - Updated Stormwater Data Report														0
180.10.05 - Approved FED														0
180.10.05.05 - Draft FED Review														0
180.10.05.10 - Revised Draft FED														0
180.10.05.15 - Section 4(f) Evaluation														0
180.10.05.20 - Findings Report														0
180.10.05.25 - Statement of Overriding Conds														0
180.10.05.30 - GEQA Certification														0
180.10.05.35 - FRWA and Approval														0
180.10.05.40 - Section 106 Cons & MOA														0
180.10.05.45 - Section 7 Consultation														0
180.10.05.50 - Final Section 4(f) Statement														0
180.10.05.55 - Floodplain Only PAF														0
180.10.05.60 - Wetlands Only PAF														0
180.10.05.65 - Sect 404 Permit Compliance														0
180.10.05.70 - Mitigation Measures														0
180.10.10 - Public Dist & Resp to Comments														0

Assigned Unit	Senior	Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water	Noise/Air	Paleo	Sup Svcs	Total	Begin Date	End Date	Duration (days)
180.10.15 - Final ROW Right Impact Document											0			0
180.10.30 - Other PED Products								150			150			0
180.15.05 - ROD (NEPA)											0			0
180.15.10 - ROD (CEQA)											0			0
180.15.20 - Env Commitments Record											0			0
180.15.30 - Other Complete ED Products											0			0
180.20 - NEPA Delegation											0			0
Total App PR & PED	0	150	0	0	0	0	0	150	0	20	130			0
Update Project Info for PS&E														
185.05.05 - Project Concept Review for PS&E											0			0
185.05.10 - Updated Project Info for PS&E dev											0			0
Total Update for PS&E	0	0	0	0	0	0	0	0	0	0	0			0
ROW & Excess Land														
195.40.25 - Property Maint & Rehab (non-rental)											0			0
195.40.35 - Transfer of Prop to Clear Status											0			0
195.45.05 - Excess Lands Inventory											0			0
195.45.20 - Prop Disp Units less than \$15 K											0			0
195.45.25 - Prop Disp Units \$15 K - \$500 K											0			0
195.45.30 - Prop Disp Units over \$500 K											0			0
Total ROW & Excess Land	0	0	0	0	0	0	0	0	0	0	0			0
Utility Relocation														
200.15 - Approved Utility Relocation Plan											0			0
200.20 - Utility Relocation Package											0			0
Total Coordinate Utilities	0	0	0	0	0	0	0	0	0	0	0			0
Permits, Agreements, and Route Adaptions under PS&E Consent														
205.10.05 - US Army Corps 404 Permit											0			0
205.10.10 - US Forest Service Permits											0			0
205.10.15 - US Coast Guard Permit											0			0
205.10.20 - DFG 1600 Agreement											0			0
205.10.25 - Coastal Development Permit											0			0
205.10.30 - Local Agency Concurrence/Permit											0			0
205.10.40 - Waste Discharge (NPDES) Permit											0			0
205.10.45 - US Fish & Wildlife Service Approval											0			0
205.10.50 - RWQCB 401 Permit											0			0
205.10.60 - Updated ECR											0			0
205.10.95 - Other Permits											0			0
205.20.05 - Draft Fwy Agreement											0			0
205.20.10 - Draft Fwy Agree Review											0			0
205.20.15 - Final Fwy Acres											0			0
205.20.20 - Executed Fwy Agreement											0			0
205.40.10 - New Connections & Route Adopn Sbj											0			0
205.55 - NEPA Delegation											0			0
Total Permits, Agreements, and Route Adaptions	0	0	0	0	0	0	40	0	0	0	0			0

Assigned Unit	Senior	Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water	Noise/Air	Paleo	Sup Svcs	Total	Begin Date	End Date	Duration (days)
Right of Way Interests														
225.55.20 - Right of Way Clearance	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Right of Way Interests	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Prepare Draft PS&E														
230.05.45 - Noise Barrier Plans											0			0
230.10.05 - Hwy Planning Plans											0			0
230.10.15 - Plant List											0			0
230.35.10 - Hwy Planning Specs											0			0
230.35.35 - Water Pollution Ctrl Specs											0			0
230.35.40 - Erosion Control Specs											0			0
230.60 - Updated Proj Info for PS&E Package											0			0
230.60.05 - Updated Storm Water Data Report											0			0
230.60.10 - Other Reviews/Updates Proj Info											0			0
230.90 - NEPA Delegation											0			0
Total Prepare Draft PS&E	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mitigate Environmental Impacts and Clean-up Hazardous Waste														
235.05.05 - Hst Structures Mtdg											0			0
235.05.10 - Archy & Cult Mitigation											0			0
235.05.15 - Biological Mitigation											0			0
235.05.20 - Env Mitigation R/W work											0			0
235.05.25 - Paleontology Mitigation											0			0
235.05.30 - Other Env Mitigation Products											0			0
235.10.10 - Haz Waste Sites Survey											0			0
235.10.15 - Detailed HW Sites Investigation											0			0
235.15 - HW Management Plan											0			0
235.20 - HW PS&E											0			0
235.25 - HW Clean-up											0			0
235.30 - Certification of Sufficiency (HW)											0			0
235.35 - Long Term Mitigation Monitoring											0			0
235.40 - Updated ECR											0			0
235.45 - NEPA Delegation											0			0
Total Mitigation & HW Clean-up	0	0	0	50	0	0	0	0	0	0	0	0	0	0
Permit for Subsurface Geotechnical Exploration														
240.70 - Site Ready for Subsurface Exploration											0			0
Total Geotechnical Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Circulars, Reviews and Prepare Final District PS&E Package														
255.05 - Circ & Rev Draft Dist PS&E											0			0
255.10.25 - Updated Technical Reports											0			0
255.15 - Env Reevaluation											0			0
255.20.05 - Rev Plans for Sids Comp											0			0
255.40 - Res Envs Pending File											0			0
255.45 - NEPA Delegation											0			0
Total PS&E	0	5	5	5	5	0	16	5	0	0	0	0	0	0

Assigned Unit	Senior	Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water	Noise/Air	Paleo.	Sup Svcs	Total	Begin Date	End Date	Duration (days)
Prepare Contract Documents														
260.75 - Env Cert R1L	0	0	0	0	0	0	0	0	0	0	0			0
Total Prepare Contract Documents	0	0	0	0	0	0	0	0	0	0	0			0
Perform Construction Engineering and General Contract Administration														
270.20.50 - Technical Support														0
270.55 - Final Inspect & Accept Rbc														0
270.70 - Update ECR														0
270.75 - Permit Renewal & Extension														0
270.80 - Long-Term Mitigation Contract														0
Total Const Engineering	0	15	0	50	0	0	12	20	0	0	0			0
Prepare and Administer Contract Change Orders														
285.05.05 - Need for CCO Determination														0
285.10.15 - Other Func Support														0
Total CCOs	0	0	0	0	0	0	0	0	0	0	0			0
Monitor Contract Claims														
290.35 - Provide Technical Support														0
Total Contract Claims	0	0	0	0	0	0	10	0	0	0	0			0
Accept Contract, Prepare Final Construction Estimate & Prepare Final Report														
295.55 - Cert of Env Compliance														0
295.60 - Long-Term Mitigation Contract														0
Total Final Construction	0	0	0	0	0	0	0	0	0	0	0			0
Total Project Hours	0	1439	61	1221	0	0	408	331	0	0	145			553

ATTACHMENT G

TRAFFIC ENGINEERING PERFORMANCE ASSESSMENT

Documentation of the Traffic Engineering Performance Assessment

1. District – County –Route – Limits: 07-LA-110 (PM 20.10/20.92)
2. Facility Type: HOV Off-ramp
3. Project Type : Expand Access
4. Targeted System User : High Occupancy Vehicles (HOVs)
5. Key Transportation Agencies (MPO, RTPA, County, Cities):
6. Context : Urban
7. Project Manager: Mirna Dagher

SUMMARY OF PRELIMINARY FINDINGS & RECOMMENDATIONS

Assessment Approach, Data Sources & Major Assumptions

- Traffic Forecasting & Modeling:
 1. Local Model – use SCAG travel Demand Model
 2. Develop New Model to include the proposed project
 3. Need existing mainline and off-ramp traffic data
 4. May need historical traffic growth data/factor
 5. Need the existing year/base year to be specified
 6. Future year to be specified & within 30 years from the base year
- Traffic Analysis
 1. Operational / Capacity – HOV operation analysis would be needed.
 2. Installation of a count surveillance station is for operational purposes.
 3. ITS system within the project limits would be impacted due to construction activities. The temporary communication systems estimated at \$50,000.0 shall be included as part of project cost. The estimated cost for the replacement of the existing ITS system would be \$ 150,000.0 \$ 180,000.0 & \$ 180,000.0 for alternatives 2, 3, & 4, respectively.
- Safety
 1. Safety analysis would be performed and the accident data on the local streets (Figueroa St. & Adams) & Freeway (N/B I-110 mainline and HOV) would be required.

Preliminary Assessment Findings (regarding operational and safety performance)

1. Freeway lighting for the proposed off-ramp is required.
2. Roadside/roadway Departure Systems and Treatment - Guardrail systems are needed (transitional guardrail) at the entrance and terminus end of the proposed bridge.
3. Clear Zone Enhancements - Crash Attenuators at the gore area of the fly-over are needed.
4. Lighting – LED lighting for existing Adams off-ramp & Figueroa off-ramp.
5. Intersection Traffic Control Systems –

Signalization – Potential sight distance impact at Flower/Adams intersection would occur.

Beacons – to be installed at the terminus end of the proposed ramp

6. Real time (intelligent) Warning Sign Systems – to be installed prior to the existing freeway
7. Right-turn channelization is to be installed at the end of the off-ramp turning into Figueroa St.
8. Acceleration and deceleration lanes are to be installed per State standards.
9. Pavement Surface Treatment – Shoulder rumble strip and pavement marking are to be installed.
10. Drainage System Enhancements – The existing pump station at southeast corner of Flower/Adams would be protected and upgraded.
11. Potential sight distances impacts for existing traffic signals and safety lighting at Adams/Flower Streets would occur and the analysis would be needed to make sure they are obscured by the fly-over structure.
12. The right turning movement from west Adams to north HOV lanes will be restricted.
13. The existing N/B HOV off-ramp at Adams should be kept opened
14. The existing signing and striping at Flower Street would be improved to reduce the potential of wrong way accidents.
15. The existing traffic signals at Adams/Flower Streets would need to be relinquished to City of Los Angeles
16. Speed reduction warning signs with flashing beacons are to be installed on the proposed off-ramp.
17. Rumble strips are to be installed at the proposed ramp downgrade.
18. The pedestrian signals at the easterly side of Figueroa Street intersecting the proposed off-ramp would be installed.

Memos from functional units are attached for reference.

Memorandum

To: Mohamed Ahmed
Senior Transportation Engineer
Office of Project Studies

Date: March 16, 2012

File No:
07-LA-110, (PM20.10/20.92
EA 07186-27800K

From: DEPARTMENT OF TRANSPORTATION-DISTRICT 07
Chao Wei
Senior Transportation Engineer
Office of Advance Planning

Subject: Article 5

Per your request, the following may be needed for providing the forecast for the project:

1. *Local Model –use SCAG travel Demand Model*
2. *Develop New Model to include the proposed project*
3. *Need Existing Mainline and off-ramp connector traffic data*
4. *May need historical traffic growth data/factor*
5. *Need the existing year/Base year to be specified*
6. *Future year to be specified & to be within 30 years from the base year*

Should you have any questions, please contact me at 213-897-1814.

M e m o r a n d u m

*Flex your power!
Be energy efficient!*

To: Mohamed Ahmed, S.T.E.
Office of Project & Special Studies

Date: March 8, 2012
File: 07-LA-110 PM 20.10/20.92
EA: 07186-27800K

From: Jacqueline Tan, S.T.E.E.
Office of ITS

Subject: PSR Review - Article 5

The Office of Intelligent Transportation Systems (ITS) has reviewed the Project Study Report for the above noted project. It appears there are possible conflicts with the existing fiber optic communications system based on a recent project, EA-168104. The project included the construction of Closed Circuit Television (CCTV) cameras and communications conduits, containing fiber optic cables, along Route 110 within your project limits. This segment of the communications infrastructure is an essential communications link, for video and data transmission/communications, between the Los Angeles Regional Transportation Management Center (LARTMC) and Communication Hub buildings at Los Angeles Airport (LAX) and East Los Angeles (ELA). The fiber on Route 110 was assigned as the primary fiber optic communications route with the LAX hub to the LARTMC and all of the communications with the CCTV cameras, Changeable Message Signs (CMS), Traffic Monitoring Systems (TMS) and Ramp Metering Systems (RMS) on this route and parts of Route 91, Route 105, and Route 405 will be lost unless alternative design and construction options are identified. And although most of the proposed design work on this project is on the northbound right shoulder, there is possible damage to the south side of the freeway due to possible piles that may impact the shoulder and therefore possibly impact the existing communications system. At this point there are no details, just conceptual drawings. The proposed design must accommodate and keep the communications system running throughout the construction of the above-mentioned project.

The draft cost estimate for replacement of ITS elements due to the proposed work on Rte 110 and Adams Blvd. is as follows. The cost estimate includes \$50,000 for temporary communications.

Alternative 2: \$ 150,000 - possible impact to our communications system at Adams Blvd. + temporary communications

Alternative 3: \$ 180,000 - possible impact to our communications system and CCTV camera + temporary communications.

Alternative 4: \$ 180,000 - possible impact to our communications system and CCTV camera + temporary communications.

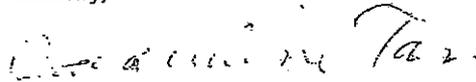
There are a few recommendations for the written portion of the PSR, please refer to the PSR for those comments.

For your information, there will be many signs, toll equipment cabinets, and communications conduits installed near and around Adams Blvd for the HOT Lanes project currently in construction, EA 274404, that may need to be relocated and/or replaced due to this contract. These field elements and corresponding communications infrastructure would need to be relocated and/or replaced as first order of work. Please request a cost estimate from the Los Angeles County Metropolitan Transportation Authority if it is determined that such field elements and corresponding communications infrastructure would need to be relocated and/or replaced on this project.

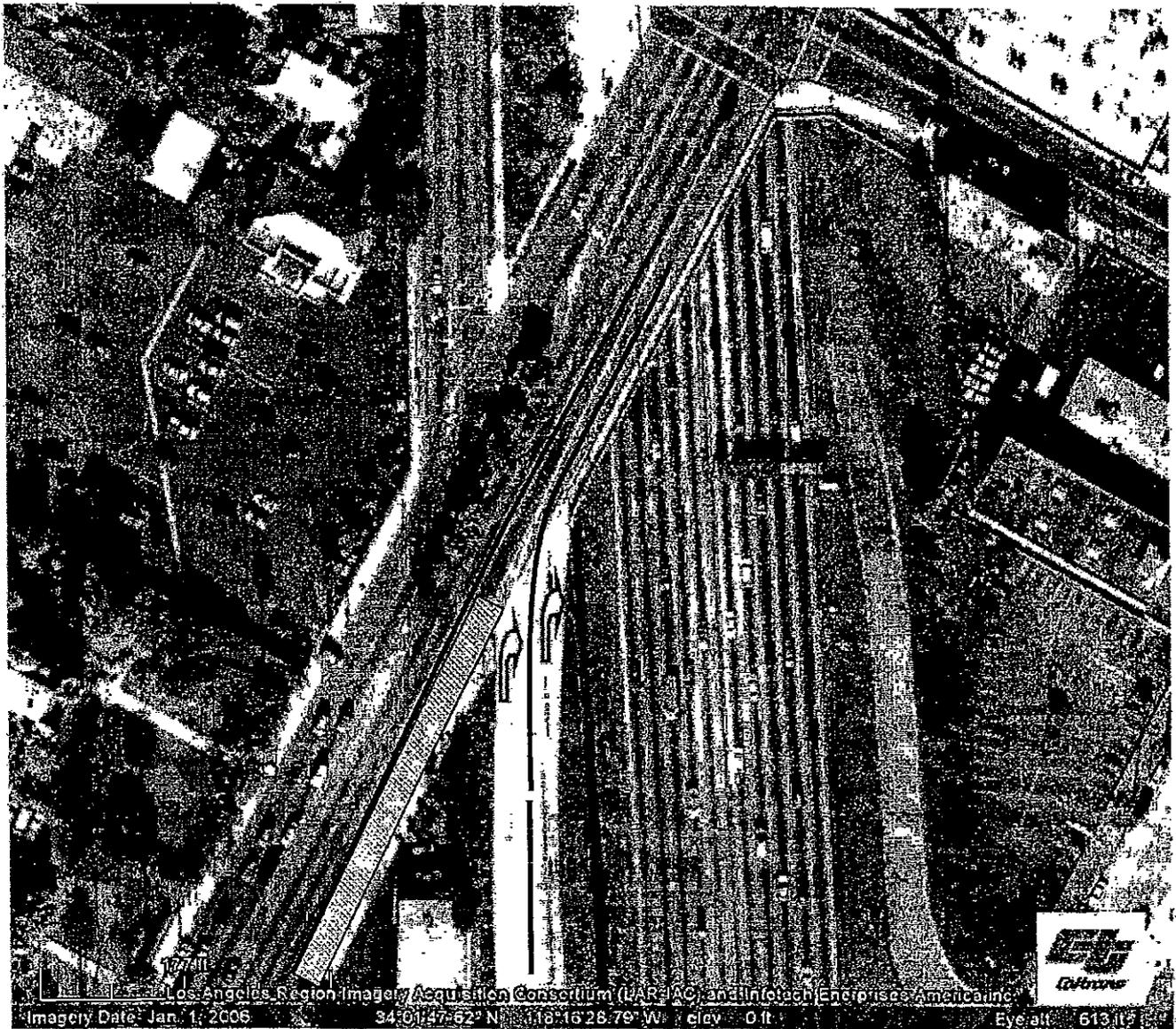
Should the project scope be altered, a new evaluation would be required.

If you have any questions or require additional information, please contact me at (213) 897-4698 or David Padilla, of my staff, at (213) 897-0555.

Sincerely,



Jacqueline Tan, S.T.E.E
Office of ITS



Memorandum

To: Mohamed Ahmed
DIVISION OF PLANNING
OFFICE OF PROJECT STUDIES

Date: March 3, 2012

File: 07-LA-110
PM 20.10/20.92

E.A.: 07186-27800K

From: DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC DESIGN- ELECTRICAL
District 7

Subject: Article 5

Below is the requested information from Traffic Design- Electrical regarding the fulfillment of Article 5:

Assessment Approach

- Traffic Analysis
 - *Operational: The installation of a traffic count/surveillance station.
 - *Safety: Freeway lighting for the connector is required.

Preliminary Assessment Findings

- Project scope
 - *Lighting up the elevated off-ramp connector is a safety requirement.
 - *Installation of a count surveillance station is for operational purposes.

Should have any questions regarding the above, you may contact Mr. Cesar Hernandez at 897-5984.

Hassan Manna, STEE
Office of Traffic Design

cc: File

Memorandum

To: Mohamed Ahmed, S.T.E.
Office of Project & Special Studies

Date: March 6, 2012
File: 07-LA-110, PM 20.10/20.92
HB5

From: Yunus Ghausi, P.E., T.E.
Office of Traffic Investigations

Ea: 07186-27800K

Subject: ARTICLE 5

The following's are our preliminary screening assessment to the (d) section of ARTICLE 5, "Safety System / Devices / Strategies"; we recommend alternative 2 to be implemented:

- **Roadside / Roadway Departure Systems and Treatments** – The devices are needed for existing (Adam) gore area and proposed (Figueroa) gore area.
 - **Median Barrier Systems** – Not Applicable.
 - **Guardrail Systems** – Transitional guardrail are needed at the entrance and terminus end of the proposed bridge.
 - **Clear Zone Enhancements** - (Crash Attenuators) at the gore area (spilt area) of the flyover at NB HOV off-ramp to Adams Boulevard.
- **Glare Screen** - Not Applicable.
- **Lighting** – LED lighting for existing (Adam) and proposed (Figueroa) off-ramp.
- **Truck Escape Ramps** - Not warranted.
- **Fencing** - Not needed.
- **Intersection Traffic Control Systems**
 - **Roundabouts (Yield Control)** - Not Applicable.
 - **Signalization** – Potential sight distance impact at Flower/Adam intersection due to proposed overcrossing ramp structure.
 - **All Way Stop Control** – Not Applicable.
 - **Beacons** – To be installed at the terminus end of the proposed ramp.
- **Real Time (Intelligent) Warning Sign Systems** – to be installed prior to existing freeway.
- **Left-turn and right-turn channelization** – We recommend the two proposed off-ramp lanes to be extended onto Figueroa (free flow) by providing right-turn channelization (see attached exhibit for preliminary concept).
- **Acceleration and Deceleration lane extension** – Per state standards.
- **Pavement Surface Treatment** – shoulder rumble strip and pavement marking.
- **Drainage System Enhancements** – Potential impact to existing pump station @ SE corner of Flower/Adam intersection.
- **Severe Weather Detection & Warning Systems for Ice/Fog/Wind** – Not warranted.

- Potential of sight distance for existing traffic signals and safety lighting at Adams and Flower Street because of the flyover structure over the Adams Boulevard. It needs to be analyzed to make sure they are obscured by flyover structure.
- Restricting the right turning movement from west Adams Boulevard to north HOV lanes.
- The existing NB HOV off-ramp at Adams should be kept opened for west and east Adams Boulevard.

- Improve signing and striping to reduce the potential of wrong way accidents at Flower Street.
- The existing traffic signals at Adams and Flower Street needs to be relinquished to City of Los Angeles.

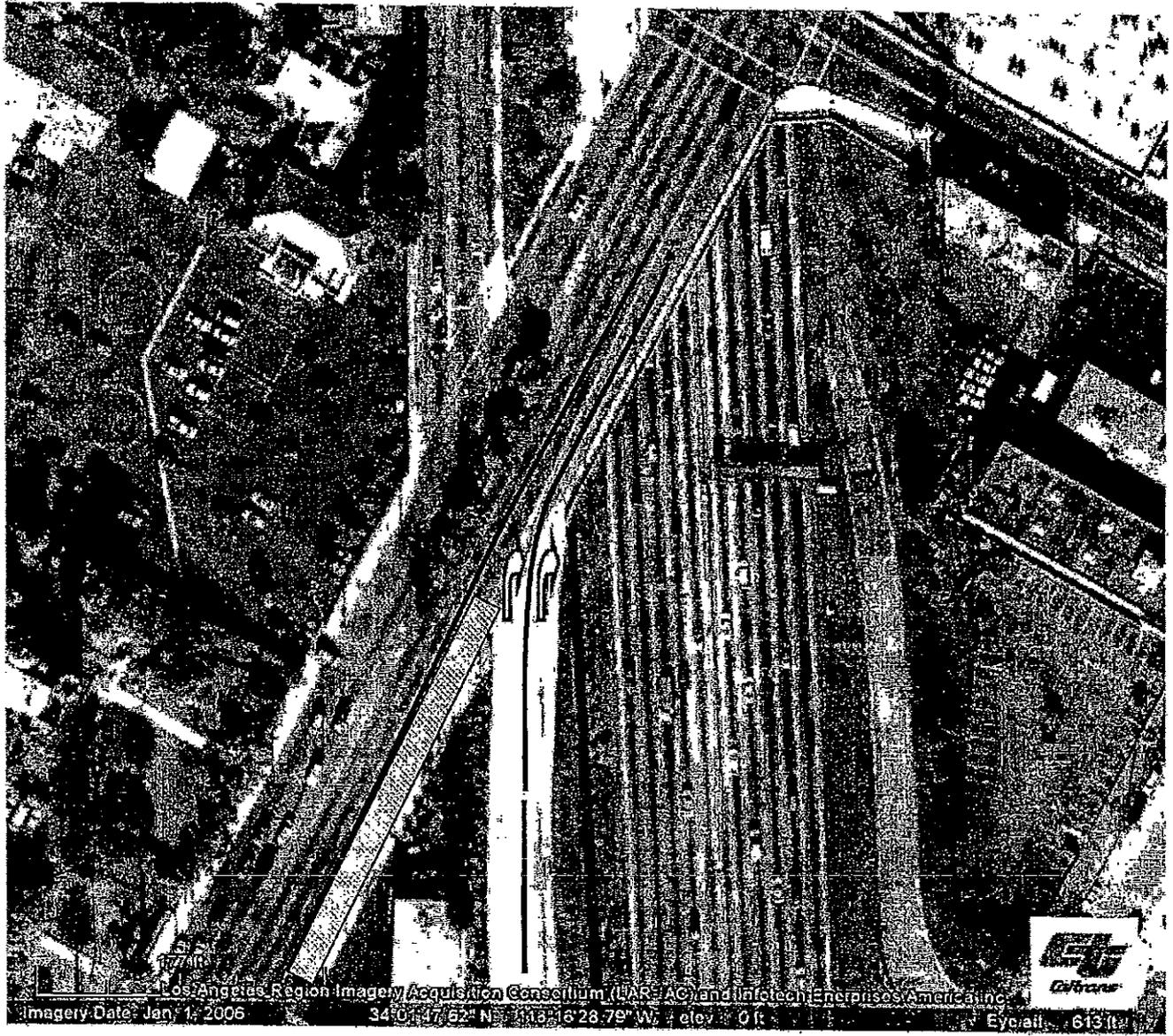
We recommend alternative 2 as the best alternative to mitigate the impact of the existing and the increase in future HOV traffic. Alternative 2 provide the most storage length and least impact to surrounding infrastructures and motorists convenience.

However, we recommend that alternative 2 to be modified to provide continuous 2 free flow lanes onto Figueroa Street (see attached exhibit for detail); thus, we recommend the following's:

- Speed reduction warning signs with flashing beacons to be installed on the proposed off-ramp,
- Rumble Strips to be installed at proposed ramp downgrade,
- Installing pedestrian signal at the easterly side of Figueroa intersecting with new off-ramp.

If there any questions, please feel free to contact me at (213) 897-0560, or George Chammas of my staff at (213) 897-3355.

Yunus Ghausi, P.E., T.E.
Senior Transportation Engineer



Memorandum

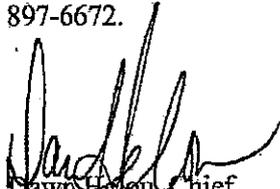
To: Mohamed Ahmed
DIVISION OF PLANNING
OFFICE OF PROJECT AND SPECIAL STUDIES, MS 16

Date: March 8, 2012
File: 07-LA-110, PM 20.10/20.92
HB5
EA: 07186-27800K

From: Dawn Helou
DIVISION OF OPERATIONS
OFFICE OF FREEWAY OPERATIONS
HOV OPERATIONS / TRAFFIC MONITORING BRANCH

Subject: ARTICLE 5

Per your request, the highlighted items on pages 5 and 7 of the attached document (Article 5 – Traffic Engineering Performance Assessment) identify the subject areas that may be of importance to the HOV Operations Branch. If you have any questions, please call me at (213) 897-6672.



Dawn Helou, Chief
HOV Operations / Traffic Monitoring Branch

Attachment: Article 5 – Traffic Engineering Performance Assessment

Mohamed A
Ahmed/D07/Caltrans/CAGov
03/08/2012 10:13 AM

To Emmanuel Nwazota/D07/Caltrans/CAGov@DOT
cc I-Chung Chu/D07/Caltrans/CAGov@DOT
bcc
Subject Fw: 07-LA-110 PM 20.1/20.92 07186-27800K

Mohamed A. Ahmed
Senior Transportation Engineer
Office of Project and Special Studies
Tel: (213) 897-5975

— Forwarded by Mohamed A Ahmed/D07/Caltrans/CAGov on 03/08/2012 10:13 AM —

Iqbal
Toorawa/D07/Caltrans/CAGov
v
03/08/2012 10:03 AM

To mohamed_a_ahmed@dot.ca.gov
cc Afsaneh Razavi/D07/Caltrans/CAGov@DOT
Subject 07-LA-110 PM 20.1/20.92 07186-27800K

Hello Mohamed

This project proposal to extend HOV lane off to Figueroa Street does not involve Ramp Metering related issues. Therefore the Ramp Metering Branch do not have fill in Article 5. Alternative 2 stands out the best option among the proposed options since it has minimum impact on surrounding structures, utilities and no right of way requirement.

ATTACHMENT H

PSR-PDS SURVEYS NEEDS QUESTIONNAIRE

ARTICLE 8

PSR-PDS SURVEY NEEDS QUESTIONNAIRE

General Guidance:

The project datums, vertical and horizontal, need to be established as soon as possible in the schedule, and all other mapping adjusted to the project datums. Obsolete datums such as NAD27 and NGVD29 should not be used for new projects.

What Survey Control Datums will be used for project design and mapping?

Vertical Control

- NAVD 1988 (Preferred)
- NGVD 1929 (Alternative)
- Other (Must consult with Caltrans Surveys)

Horizontal Control

California Coordinate System of 1983

- Epoch 1991.35
- Other than CCS83 (Must consult with Caltrans Surveys)

Will the project need a Sea Level Rise Risk Assessment? **No**

Does the project adjoin the ocean or tidal waterways? **No**

Is the existing highway protected by levees, sea walls, or rip-rap? **No**

Will existing as-builts, centerlines, or base mapping require any datum or unit conversions? **No**

Are the right of way record maps current? **Yes**

Is there any need to accelerate design accuracy surveys for this project? **Yes**

ATTACHMENT I

CONCEPTUAL COST ESTIMATE REQUEST –
RIGHT OF WAY COMPONENT

**CONCEPTUAL COST ESTIMATE – RIGHT OF WAY COMPONENT
 ALTERNATIVE 2**

To: Mohamed Ahmed

Date:05/01/2012
 07-LA-110- 20.1/20.92
 Project ID
 EA: 27800K
 N/B 110 HOV Off-Ramp
 Connector at Adam Blvd

From: Dan Murdoch

A Field Review was conducted Yes No

Scope of the Right of Way

Provide a general description of the right of way including the location attributes.

Right of Way Required Yes No
 Number of Parcels 1-10 11-25 26-50 51-100 >100
 Urban Rural
 Land Area: Fee Easement
 Displaced Persons/Businesses Yes No
 Demolition/Clearance Yes No
 Railroad Involvement Yes No
 Utility Involvements Yes No Number of Utilities in area : #3

Cost Estimates

Support Costs	<input type="checkbox"/> \$0-\$25,000	<input type="checkbox"/> \$500,001-\$1,000,000
	<input checked="" type="checkbox"/> \$25,001-\$100,000	<input type="checkbox"/> \$1,000,001-\$5,000,000
	<input type="checkbox"/> \$100,001-\$250,000	<input type="checkbox"/> \$5,000,001-\$10,000,000
	<input type="checkbox"/> \$250,001-\$500,000	<input type="checkbox"/> >\$10,000,000
Capital Costs	<input type="checkbox"/> \$0-\$100,000	<input type="checkbox"/> \$5,000,001-\$15,000,000
	<input checked="" type="checkbox"/> \$100,001-\$500,000	<input type="checkbox"/> \$15,000,001-\$50,000,000
	<input type="checkbox"/> \$500,001-\$1,000,000	<input type="checkbox"/> \$50,000,001-\$100,000,000
	<input type="checkbox"/> \$1,000,001-\$5,000,000	<input type="checkbox"/> >\$100,000,000

Schedule

Right of Way will require 18 months to deliver a Right of Way Certification #1 from Final R/W Maps. This estimate is based on a Right of Way Certification date of 07-01-2015 T .

Areas of Concern

Provide a description of areas in close proximity to the project footprint that are likely to result in complex right of way issues if impacted (i.e. junkyards, cemeteries, utility towers, etc.).

- 1) Coordinate with Metro rail Expo Line.

Assumptions and Limiting Conditions

Provide a description of assumptions and limiting conditions.

**CONCEPTUAL COST ESTIMATE – RIGHT OF WAY COMPONENT
 ALTERNATIVE 3**

To: Mohamed Ahmed

Date: 05/01/2012
 07-LA-110- 20.1/20.92
 Project ID
 EA: 27800K
 N/B 110 HOV Off-Ramp
 Connector at Adam Blvd

From: Dan Murdoch

A Field Review was conducted Yes No

Scope of the Right of Way

Provide a general description of the right of way including the location attributes.

Right of Way Required Yes No
 Number of Parcels 1-10 11-25 26-50 51-100 >100
 Urban Rural
 Land Area: Fee Easement
 Displaced Persons/Businesses Yes No
 Demolition/Clearance Yes No
 Railroad Involvement Yes No
 Utility Involvements Yes No Number of Utilities in area: #3

Cost Estimates

Support Costs	<input type="checkbox"/> \$0-\$25,000	<input type="checkbox"/> \$500,001-\$1,000,000
	<input checked="" type="checkbox"/> \$25,001-\$100,000	<input type="checkbox"/> \$1,000,001-\$5,000,000
	<input type="checkbox"/> \$100,001-\$250,000	<input type="checkbox"/> \$5,000,001-\$10,000,000
	<input type="checkbox"/> \$250,001-\$500,000	<input type="checkbox"/> >\$10,000,000
Capital Costs	<input type="checkbox"/> \$0-\$100,000	<input type="checkbox"/> \$5,000,001-\$15,000,000
	<input checked="" type="checkbox"/> \$100,001-\$500,000	<input type="checkbox"/> \$15,000,001-\$50,000,000
	<input type="checkbox"/> \$500,001-\$1,000,000	<input type="checkbox"/> \$50,000,001-\$100,000,000
	<input type="checkbox"/> \$1,000,001-\$5,000,000	<input type="checkbox"/> >\$100,000,000

Schedule

Right of Way will require 18 months to deliver a Right of Way Certification #1 from Final R/W Maps. This estimate is based on a Right of Way Certification date of 7-01-2015 T .

Areas of Concern

Provide a description of areas in close proximity to the project footprint that are likely to result in complex right of way issues if impacted (i.e. junkyards, cemeteries, utility towers, etc.).

- 1) Coordinate with Metro rail Expo Line.

Assumptions and Limiting Conditions

Provide a description of assumptions and limiting conditions.

**CONCEPTUAL COST ESTIMATE – RIGHT OF WAY COMPONENT
 ALTERNATIVE 4**

To: Mohamed Ahmed

Date: 05/01/2012

07-LA-110- 20.1/20.92

Project ID

EA: 27800K

From: Dan Murdoch

N/B 110 HOV Off-Ramp

Connector at Adam Blvd

A Field Review was conducted Yes No

Scope of the Right of Way

Provide a general description of the right of way including the location attributes.

Right of Way Required Yes No
 Number of Parcels 1-10 11-25 26-50 51-100 >100
 Urban Rural
 Land Area: Fee Easement
 Displaced Persons/Businesses Yes No
 Demolition/Clearance Yes No
 Railroad Involvement Yes No
 Utility Involvements Yes No Number of Utilities in area: #3

Cost Estimates

Support Costs	<input type="checkbox"/> \$0-\$25,000	<input type="checkbox"/> \$500,001-\$1,000,000
	<input checked="" type="checkbox"/> \$25,001-\$100,000	<input type="checkbox"/> \$1,000,001-\$5,000,000
	<input type="checkbox"/> \$100,001-\$250,000	<input type="checkbox"/> \$5,000,001-\$10,000,000
	<input type="checkbox"/> \$250,001-\$500,000	<input type="checkbox"/> >\$10,000,000
Capital Costs	<input type="checkbox"/> \$0-\$100,000	<input type="checkbox"/> \$5,000,001-\$15,000,000
	<input checked="" type="checkbox"/> \$100,001-\$500,000	<input type="checkbox"/> \$15,000,001-\$50,000,000
	<input type="checkbox"/> \$500,001-\$1,000,000	<input type="checkbox"/> \$50,000,001-\$100,000,000
	<input type="checkbox"/> \$1,000,001-\$5,000,000	<input type="checkbox"/> >\$100,000,000

Schedule

Right of Way will require 18 months to deliver a Right of Way Certification #1 from Final R/W Maps. This estimate is based on a Right of Way Certification date of 07-01-2015 T.

Areas of Concern

Provide a description of areas in close proximity to the project footprint that are likely to result in complex right of way issues if impacted (i.e. junkyards, cemeteries, utility towers, etc.).

- 1) Coordinate with Metro rail Expo line.

Assumptions and Limiting Conditions

Provide a description of assumptions and limiting conditions.

ATTACHMENT J
DESIGN SCOPING INDEX

PROJECT INITIATION DOCUMENT DESIGN SCOPING INDEX

Attach the project location map to index to show the location of all design improvements.

Today's Date:	3/15/2012
Status (Initial, Update):	Update

General Information:

District:	County:	Route:	Kilometer Post (Post Mile)	EA
07	LA	N/B I-110	(PM 20.10 / 20.92)	27800K

Project Manager	Mirna Dagher	Phone #	213-897-2786
Task Manager		Phone #	
Project Engineer	ICHung (Ivan) Chu	Phone #	213-897-0097
Design Functional Manager	Mohamed A. Ahmed	Phone #	213-897-5975

General Project Descriptions:	To build a HOV off-ramp connector off the N/B I-110 at Adams Blvd.
-------------------------------	--

Project Need:	Due to the HOVs exiting through the bottle neck intersections, the existing N/B I-110 to Adams Blvd. HOV off-ramp connector has experienced queuing and congestion.
Project Purpose:	To alleviate the congestion and reduce the queuing and delay on the HOV mainline and Adams Blvd. off-ramp connector

Item	Considerations	Yes/No/Specific	Comments (summarize pertinent information, assumptions, reference location of detailed information, and name of person who will provide information).
1. Project Setting (refer to Planning Scoping Checklist)	Rural or Urban?	Urban	
	Current Land Uses: (e.g., industrial, light industry, commercial, agricultural residential etc).	Freeway	
	Adjacent Land Uses:	commercial	
	Existing Landscaping:	Yes	
	Designated or eligible scenic highway	No	

The following pages are to be used for each alternative provided that the scope is significantly different. If a route has been adopted as a freeway, a decision must be made as to whether or not the project will address improvements to the existing traversable highway or move to construction of a freeway facility.

Item	Considerations		Yes/No/Specific	Comments (summarize pertinent information, assumptions and reference location of detailed information):
Design Concept and Route Matters	1.	Design Concept?		
		Freeway/Expressway/Conventional Highway	Freeway	
		Mixed highway and transit		
		Mixed highway and rail		
		Urban	Yes	
		Other		
	2.	Existing Route Adoption Date	8/6/1947	
	3.	New Route Adoption Proposed?		
Design Criteria	1.	Design speed for highway facilities within the project limit mi/hr?	75 mph	
	2.	Design Period: (10 yr/15 yr/20yr)	20 yr	
		Construction Year	2016	
		Design Year	2014	
	3.	Design Capacity - Level of Service to be maintained over the design period:		
		Mainline	Yes	At the current level
		Ramp		
		Local Street	Yes	At the current level
		Weaving Sections	Yes	At the current level
	4.	Design Vehicle Selection		
		STAA	Yes	
		California	Yes	
		Bus	Yes	

Proposed Roadbed and Structure Widths

Existing Average Daily Traffic volumes	274,000
Percent truck volume	4.7 %

State Highway	Roadbed Width (Alternative 2)			Structure Width (Alternative 2)		
	Existing	Proposed	Standard	Existing	Proposed	Standard
Lane widths/#	11'	11'	12'		12'	12'
Left Shoulder	3' - 7'	3' - 7'	10'		4'	4'
Right Shoulder	8'	10'	10'		8'	8'
Median Width						
Bicycle lane						
Sidewalk						
Planting strip						
Local Streets						
Lane widths/#	10'	10'	12'			
Left Shoulder						
Right Shoulder						
Median Width	10'	10'	12'			
Bicycle lane						
Sidewalk	11'	11'				
Planting strip						

Item	Considerations		Yes/No/Specific	Comments (summarize pertinent information, assumptions and reference location of detailed information):
Roadway Design Scoping	1. Mainline Operations	Main lane highway widening?		
		Existing pavement to be rehabilitated with Asphalt Concrete/Rubberized AC/PCC?		
		Widen existing facility from ___ lanes to ___ lanes.		
		Local street structures to span ___ lanes.		
		Curb extensions		
		Shoulder improvements	Yes	
		Bicycle lanes	Yes	It would be on the Figueroa St.
		Pedestrian refuge islands		
		Sidewalks	Yes	
		Right of Way acquisition required for ___ lanes.	Yes	Temporary Construction Easements & Light Rail Transit (LRT)
		Identify Potential Relinquishments and vacations.		

Item	Considerations		Yes/No/Specific	Comments (summarize pertinent information, assumptions and reference location of detailed information):
		Upgrade existing facility to: Expressway/Freeway/ Controlled Access Highway/ Traversable Highway Standards?	No	
		Improve Vertical Clearance		
		Adequate Falsework Clearance	Yes	
		Traffic calming features		
Roadway Design Scoping	2. Ramp/Street Intersection Improvements	New Signals?	Yes	
		Modify Existing Signals?	Yes	
		Right Turn Lanes	Yes	
		Widening for Localized Through lanes?		
		Merging Lanes?	Yes	
		Deceleration/Acceleration lanes?	Yes	
		Left Turn Lanes?		
		>300 VPH Left Turn (Requires Double Left Turn Lane)		
		Interchange Spacing?		
		Ramps Intersect Local Street < 4% grade?		
		Intersection Spacing?		
		Exit Ramps >1,500 VPH (Requires two lane exit)		To be determined at the next phase
		Single lane ramps exceeding 1000' widened to Two lanes		
		Curb Ramps?		
		Pedestrian Facilities?		
Other?				
Operational Improvements	Truck Climbing Lane	Sustained Grade exceeding 2% and Total Rise Exceeds 50'?		
		Other?		
	Auxiliary Lanes	2000' between Successive On-Ramps?		
		Two lane Exit Ramps have 1300' Auxiliary Lane?		
		Weaving < 2000' between off-ramp and on-ramp?		
	Other?			
Right of Way Access Control (N/A)	Existing access control extends at least 50 ft beyond end of curb return, radius, or taper?			
	New construction access control extends at least 100' (urban areas) or 300' (rural areas) beyond end of curb returns, radius, or taper?			
	Other?			

Project Initiation Document Design Scoping Index

Item	Considerations	Yes/No/Specific	Comments (summarize pertinent information, assumptions and reference location of detailed information):
Highway Planting and Irrigation	Clearing and Grubbing?	Yes	
	Relocate Existing Irrigation Facilities?	Yes	To be investigated at the next phase
	Highway Planting and Irrigation (including median and roadside)		
Item	Considerations	Yes/No/Specific	Comments (summarize pertinent information, assumptions and reference location of detailed information):
Roadside Management	Vegetation control treatments (road edge, guardrails, signs, drainage facilities, miscellaneous pavement narrow areas, etc.)	Yes	
	Modernization and clustering of facilities and hardware (removing and replacing other items), gore area pavement		
	Rehabilitate gore area pavement and pavement beyond gore areas (remove and replace miscellaneous pavement and curbs		
	Landform grading, contour grading, slope rounding, stepped slopes and topsoil reapplication	Yes	
	Side slopes/embankment slope	Yes	
	Visual Assets		
Worker Safety	Off-Freeway Access (gate, access road, and stairways)	Yes	
	Maintenance Vehicle Pull-Out	Yes	
	Adequate safety working conditions	Yes	
	Relocate roadside facilities/features (cabinets, poles, pull boxes and vaults) away from traffic		
Hydraulics/ Stormwater (Refer to the Stormwater Data Report)	Erosion Control	Yes	
	Drainage		
	Slope Design		
	Permanent Stormwater BMPs		No Places for BMPs
Structures (Refer to Structures Scoping Checklist or APS)	New Bridge?	Yes	
	Bridge Rehab?		
	Retaining Wall	Yes	
	Bicycle or Pedestrian	Yes	On Figueroa Street
	Other		
Other	Class I Bikeway (bicycle path)		

ATTACHMENT K

DIVISION OF ENGINEERING SERVICES (DES)
PSR-PDS SCOPING SHEET

ARTICLE 11

Division of Engineering Services PSR-PDS Scoping Checklist

Project Information

District 07 County LA Route I-110 (Post Mile) 20.10 / 20.92 EA 07-27800K
Project ID# 0700000537

Project Description: Alternative 2

This alternative proposes a two-lane 9N/B I-110 Transit Way to Figueroa Street) fly-over off-ramp connector (1,370' in length), connecting from the end of the existing viaduct and landing at the existing expressway, to bypass the existing at-grade bottleneck intersections (the Harbor Transit Way/Adams Blvd. & Adams Blvd./Flower Street).

Project Manager: Mirna G. Dagher Phone # 213-897-2786
DES Project Liaison Engineer* (PLE): Jan Rutenbergs Phone # 916-227-7335
DES Special Funded Projects Liaison Engineer: Richard Hartzell Phone # 916-227-8772
District Project Engineer: I-Chung Chu Phone # (213) 897-0097
DES Consultant Management Engineer: Phone #

*The Project Liaison Engineer will provide assistance with the completion of this form.

Project Scope

DES acknowledges that scope is in development at this time. The Project Liaison Engineer is available to assist the District in determining the involvement of DES functional units. The intent of the checklist is to gather as much information as possible on the alternatives to accurately identify the involvement of DES.

Describe and identify in the following sections a general description of improvements anticipated as part of the project scope that will require DES functional unit involvement.

Check applicable boxes describing proposed scope of project.

- | | | |
|---|--|---|
| <input type="checkbox"/> New Expressway/Freeway on new alignment | <input type="checkbox"/> Other Roadway Realignment | <input type="checkbox"/> Widen Highway |
| <input type="checkbox"/> Construct Interchange | <input type="checkbox"/> Emergency/Storm Damage | <input type="checkbox"/> Rockfall Project |
| <input type="checkbox"/> Modify Interchange | <input type="checkbox"/> Bridge Widening | <input type="checkbox"/> Left-turn Pocket |
| <input type="checkbox"/> Bridge Replacement | <input type="checkbox"/> Curve Correction | <input type="checkbox"/> Modify Slope |
| (New alignment? <input type="checkbox"/> Yes <input type="checkbox"/> No) | <input type="checkbox"/> Building Project | <input type="checkbox"/> Stabilize Subgrade |
| <input type="checkbox"/> Bridge Rehabilitation | <input type="checkbox"/> Median Barrier Retrofit | <input type="checkbox"/> Stabilize Roadway |
| | <input type="checkbox"/> Construct Passing Lane | <input type="checkbox"/> Landslide/Slip-out |

[Type text]

- New Bridge
- Bridge Seismic Retrofit
- Other Design: Explain: Construct New Off-ramp Connector
- Soundwall/Retaining Wall
- Roadway Rehabilitation
- Bridge Deck Rehab.
- Bridge Joint Seals

Briefly describe proposed scope of DES involvement for all alternatives.

Alternative 1: No build

Alternative 2: Two-lane Minimum Build HOV Off-ramp Connector

Alternative 3: Extension of the Viaduct and One-Lane Minimum Build Off-Ramp Connector

Alternative 3: Extension of the Viaduct and One-Lane Minimum Build Off-Ramp Connector (longer extension of alternative 3)

Project Schedule

PA/ED Date	12/31/2013
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Project Cost

For PSR (PDS) projects, the following section is to be used for EACH alternative, provided that the scope is significantly different.

Alternative #

	<u>Project Cost Range (\$ 1000's)</u>	<u>Cost of Largest Structure (\$ 1000's)</u>
Roadway	\$7,000	\$
Structure**	\$19,000	
Total	\$26,000	

**Structure Cost Range to be provided by (check one)

- Consultant
- Structure Design Technical Liaison.

Project Scope Breakdown by DES Function

Photogrammetry

Note: A Photogrammetry Service Request-PSR (PDS) must be completed and submitted to DES Photogrammetry by the District Photogrammetry Coordinator.

Bridge Design Services (check applicable boxes)

Design by:

[Type text]

- Office of Structure Design
- Structure Maintenance Design
- Office of Structure Contract Management (Consultant Design Oversight)
- Office of Special Funded Projects (Consultant Design Oversight)

Bridge Information:

<input checked="" type="checkbox"/> New Bridge(s)	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Bridge Replacement(s)	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Bridge Widening(s)	Number	Br. Name(s) & No(s).
<input type="checkbox"/> New Bridge over water	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Bridge Replacement over water	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Bridge Widening over water	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Bridge Rail Replacement(s)	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Approach Slab	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Bridge with Railroad Involved	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Bridge w/ Scour Analysis	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Bridge w/ Special Design or Retrofit	Number	Br. Name(s) & No(s).

Other DES functional units required for Structure Work

- Structure Hydraulics (include if bridge is over or adjacent to water)
- Preliminary Investigations (Structure Foundation Plan)
- Geotechnical Services (Structure Foundations)

Wall Design Data for Structure Design & Geotechnical Services

<input type="checkbox"/> Soundwall(s) Number	Est. Max. Ht Est. Length	<input type="checkbox"/> Standard Design	<input type="checkbox"/> Special Design
<input type="checkbox"/> Ret. walls(s) Number	Est. Max. Ht Est. Length	<input type="checkbox"/> Standard Design	<input type="checkbox"/> Special Design
<input type="checkbox"/> MSE Wall(s) Number	Est. Max. Ht Est. Length	<input type="checkbox"/> Standard Design	<input type="checkbox"/> Special Design

Geotechnical Services

Is Oversight for consultant prepared geotechnical reports required?

- Yes No

Has the Geotechnical Design Liaison or other geotechnical person been contacted?

- Yes No If yes, who?

Terrain	<input checked="" type="checkbox"/> Flat	<input type="checkbox"/> Rolling	<input type="checkbox"/> Mountainous
Cuts:	Est. Max Height (m)	Est. Volume (m ³):	<input type="checkbox"/> New <input type="checkbox"/> Widen
Fills:	Est. Max Height (m)	Est. Volume (m ³):	<input type="checkbox"/> New <input type="checkbox"/> Widen

Sign Structures

<input type="checkbox"/> Overhead Sign Foundations	Number
<input type="checkbox"/> Changeable Message Sign Foundations	Number

Other:

- Special Studies (slope stability, rockfall, erosion, seepage, ground water, settlement, liquefaction, slipout repair, rock slope, etc.) Explain Groundwater and liquefaction might be potential issues.
- Existing Maintenance Problems: Explain:

Technical Specialist Design

Anticipated insertable plan sheet(s) check below:

<input type="checkbox"/> Culvert(s)	Number
-------------------------------------	--------

<input checked="" type="checkbox"/> Barrier(s)	Number	Type 736 - 2,740 ft.
<input type="checkbox"/> Signs and Overhead Structures	Number	
<input type="checkbox"/> Other Design:	Explain:	

Transportation Architecture Design

<input type="checkbox"/> Design New Building(s)	Explain:
<input type="checkbox"/> Remodel Existing Buildings(s)	Explain:
<input checked="" type="checkbox"/> Bridge Aesthetics Evaluation	Explain: New bridges might need to be aesthetically enhanced.
<input type="checkbox"/> Build scale model	Explain:
<input type="checkbox"/> Other Aesthetics work	Explain:

Electrical, Mechanical, Water & Wastewater Design

<input type="checkbox"/> Pumping Plants	Explain:
<input type="checkbox"/> Movable bridge, drawbridge	Explain:
<input checked="" type="checkbox"/> Lighting control system for facilities	Explain: Needed for the lighting system for the proposed fly-over structure.
<input type="checkbox"/> Sanitary Systems	Explain:

Materials Engineering & Testing Services

Pavement

<input checked="" type="checkbox"/> Rigid	<input type="checkbox"/> Flexible	Average Grade	Average Superelevation
<input type="checkbox"/> Deflection Study Required	No. of Locations	Lane/miles to be tested	

Consultation and Inspection

<input checked="" type="checkbox"/> Loop detectors	<input type="checkbox"/> Signal & Lighting Products	<input checked="" type="checkbox"/> Changeable Message Signs, Closed Circuit TV
<input checked="" type="checkbox"/> Concrete Bridge	<input type="checkbox"/> Steel Bridge	

Materials Engineering & Testing Services (Continued)

Corrosion Tests

<input checked="" type="checkbox"/> Soil	<input type="checkbox"/> Concrete	<input type="checkbox"/> Cathodic Protection System
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Other

<input type="checkbox"/> Special Products:	Explain
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Division of Engineering Services Workload Estimate for PA/ED				
WBS	Alternative Number			
	1	2	3	4
100.1	0	0.43	0.58	0.91
160	0	0.52	0.95	1.29
175	0	0.07	0.12	0.18
Total PY's per Alternative	0	1.02	1.65	2.38

Additional Studies, Investigations or Research from DES

Identify additional studies or investigations that may be required from DES Functional Units.

Prepared By: _____

Date

5/25/2012

Please submit this form to DES, to the attention of the Project Liaison Engineer, Office of Project Delivery, in the subdivision of Program/Project & Resource Management.

DES will provide a Structure Cost Estimate Range, for each alternative and a resource summary estimate to be included in the project workplan.

ARTICLE 11

Division of Engineering Services PSR-PDS Scoping Checklist

Project Information

District 07 County LA Route I-110 (Post Mile) 20.10 / 20.92 EA 07-27800K
Project ID# 0700000537

Project Description: **Alternative 3**

This alternative proposes two elevated structures:

- The extension of the viaduct (885' in length) from end of the existing I-110 Transit Way to 105'+/- north of the Adams Blvd. OC.
- One-lane fly-over structure (646' in length), coming off the proposed viaduct extension and landing at the existing expressway, to bypass the existing at-grade bottleneck intersections (the Harbor Transit Way/Adams Blvd. & Adams Blvd./Flower Street).

Project Manager	Mirna G. Dagher	Phone # 213-897-2786
DES Project Liaison Engineer* (PLE):	Jan Rutenbergs	Phone # 916-227-7335
DES Special Funded Projects Liaison Engineer:	Richard Hartzell	Phone # 916-227-8772
District Project Engineer:	I-Chung Chu	Phone # (213) 897-0097
DES Consultant Management Engineer:		Phone #

*The Project Liaison Engineer will provide assistance with the completion of this form.

Project Scope

DES acknowledges that scope is in development at this time. The Project Liaison Engineer is available to assist the District in determining the involvement of DES functional units. The intent of the checklist is to gather as much information as possible on the alternatives to accurately identify the involvement of DES.

Describe and identify in the following sections a general description of improvements anticipated as part of the project scope that will require DES functional unit involvement.

Check applicable boxes describing proposed scope of project.

- New Expressway/Freeway on new alignment
- Construct Interchange
- Modify Interchange
- Bridge Replacement (New alignment? Yes No)
- Bridge Rehabilitation
- New Bridge
- Bridge Seismic Retrofit
- Other Design: Explain: Construct New Off-ramp Connector & Viaduct
- Other Roadway Realignment
- Emergency/Storm Damage
- Bridge Widening
- Curve Correction
- Building Project
- Median Barrier Retrofit
- Construct Passing Lane
- Soundwall/Retaining Wall
- Roadway Rehabilitation
- Widen Highway
- Rockfall Project
- Left-turn Pocket
- Modify Slope
- Stabilize Subgrade
- Stabilize Roadway
- Landslide/Slip-out
- Bridge Deck Rehab.
- Bridge Joint Seals

Briefly describe proposed scope of DES involvement for all alternatives.

Alternative 1: No build

Alternative 2: Two-lane Minimum Build HOV Off-ramp Connector

Alternative 3: Extension of the Viaduct and One-Lane Minimum Build Off-Ramp Connector

Alternative 3: Extension of the Viaduct and One-Lane Minimum Build Off-Ramp Connector (longer extension of alternative 3)

Project Schedule

PA/ED Date	12/31/2013
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Project Cost

For PSR (PDS) projects, the following section is to be used for EACH alternative, provided that the scope is significantly different.

Alternative #

	<u>Project Cost Range (\$ 1000's)</u>	<u>Cost of Largest Structure (\$ 1000's)</u>
Roadway	\$47,000	\$
Structure**	\$45,000	
Total	\$92,000	

**Structure Cost Range to be provided by (check one)

- Consultant
- Structure Design Technical Liaison.

Project Scope Breakdown by DES Function

Photogrammetry

Note: A Photogrammetry Service Request-PSR (PDS) must be completed and submitted to DES Photogrammetry by the District Photogrammetry Coordinator.

Bridge Design Services (check applicable boxes)

Design by:

- Office of Structure Design
- Structure Maintenance Design
- Office of Structure Contract Management (Consultant Design Oversight)
- Office of Special Funded Projects (Consultant Design Oversight)

Bridge Information:

<input checked="" type="checkbox"/> New Bridge(s)	Number2	Br. Name(s) & No(s). The extension of the Viaduct & Fly-over Off-ramp Connector.
<input checked="" type="checkbox"/> Bridge Replacement(s)	Number2	Br. Name(s) & No(s). Flower St. OC Br #53-1010, Adams Blvd OC Br #53-0893
<input type="checkbox"/> Bridge Widening(s)	Number	Br. Name(s) & No(s).
<input type="checkbox"/> New Bridge over water	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Bridge Replacement over water	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Bridge Widening over water	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Bridge Rail Replacement(s)	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Approach Slab	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Bridge with Railroad Involved	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Bridge w/ Scour Analysis	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Bridge w/ Special Design or Retrofit	Number	Br. Name(s) & No(s).

Other DES functional units required for Structure Work

- Structure Hydraulics (include if bridge is over or adjacent to water)
- Preliminary Investigations (Structure Foundation Plan)
- Geotechnical Services (Structure Foundations)

Wall Design Data for Structure Design & Geotechnical Services

<input type="checkbox"/> Soundwall(s) Number	Est. Max. Ht Est. Length	<input type="checkbox"/> Standard Design	<input type="checkbox"/> Special Design
<input checked="" type="checkbox"/> Ret. walls(s) Number 2	Est. Max. Ht 20 ft Est. Length 3400 ft	<input type="checkbox"/> Standard Design	<input checked="" type="checkbox"/> Special Design
<input type="checkbox"/> MSE Wall(s) Number	Est. Max. Ht Est. Length	<input type="checkbox"/> Standard Design	<input type="checkbox"/> Special Design

Geotechnical Services

Is Oversight for consultant prepared geotechnical reports required?

- Yes No

Has the Geotechnical Design Liaison or other geotechnical person been contacted?

- Yes No If yes, who?

Terrain	<input checked="" type="checkbox"/> Flat	<input type="checkbox"/> Rolling	<input type="checkbox"/> Mountainous
Cuts:	Est. Max Height (ft)15	Est. Volume (CY):1000	<input type="checkbox"/> New <input checked="" type="checkbox"/> Widen
Fills:	Est. Max Height (ft)15	Est. Volume (CY):500	<input type="checkbox"/> New <input checked="" type="checkbox"/> Widen

Sign Structures

<input type="checkbox"/> Overhead Sign Foundations	Number
<input type="checkbox"/> Changeable Message Sign Foundations	Number

Other:

- Special Studies (slope stability, rockfall, erosion, seepage, ground water, settlement, liquefaction, slipout repair, rock slope, etc.) Explain Groundwater and liquefaction might be potential issues.
- Existing Maintenance Problems: Explain:

Technical Specialist Design**Anticipated insertable plan sheet(s) check below:**

<input type="checkbox"/> Culvert(s)	Number
<input checked="" type="checkbox"/> Barrier(s)	Number Type 736 - 3060 ft, Type 60 - 885 ft
<input type="checkbox"/> Signs and Overhead Structures	Number
<input type="checkbox"/> Other Design:	Explain:

Transportation Architecture Design

<input type="checkbox"/> Design New Building(s)	Explain:
<input type="checkbox"/> Remodel Existing Buildings(s)	Explain:
<input checked="" type="checkbox"/> Bridge Aesthetics Evaluation	Explain: New bridges might need to be aesthetically enhanced.
<input type="checkbox"/> Build scale model	Explain:
<input type="checkbox"/> Other Aesthetics work	Explain:

Electrical, Mechanical, Water & Wastewater Design

<input type="checkbox"/> Pumping Plants	Explain:
<input type="checkbox"/> Movable bridge, drawbridge	Explain:
<input checked="" type="checkbox"/> Lighting control system for facilities	Explain: Needed for the lighting system for the proposed fly-over structure.
<input type="checkbox"/> Sanitary Systems	Explain:

Materials Engineering & Testing Services**Pavement**

<input checked="" type="checkbox"/> Rigid	<input type="checkbox"/> Flexible	Average Grade	Average Superelevation
<input type="checkbox"/> Deflection Study Required	No. of Locations	Lane/miles to be tested	

Consultation and Inspection

<input checked="" type="checkbox"/> Loop detectors	<input type="checkbox"/> Signal & Lighting Products	<input checked="" type="checkbox"/> Changeable Message Signs, Closed Circuit TV
<input checked="" type="checkbox"/> Concrete Bridge	<input type="checkbox"/> Steel Bridge	

Materials Engineering & Testing Services (Continued)**Corrosion Tests**

<input checked="" type="checkbox"/> Soil	<input checked="" type="checkbox"/> Concrete	<input type="checkbox"/> Cathodic Protection System
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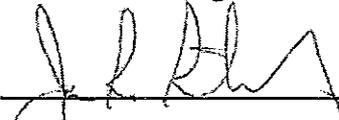
Other

<input type="checkbox"/> Special Products:	Explain
--	---------

Division of Engineering Services Workload Estimate for PA/ED				
WBS	Alternative Number			
	1	2	3	4
100.1	0	0.43	0.58	0.91
160	0	0.52	0.95	1.29
175	0	0.07	0.12	0.18
Total PY's per Alternative	0	1.02	1.65	2.38

Additional Studies, Investigations or Research from DES

Identify additional studies or investigations that may be required from DES Functional Units.

Prepared By:  Date 5/25/2012

Please submit this form to DES, to the attention of the Project Liaison Engineer, Office of Project Delivery, in the subdivision of Program/Project & Resource Management.

DES will provide a Structure Cost Estimate Range, for each alternative and a resource summary estimate to be included in the project workplan.

ARTICLE 11

Division of Engineering Services PSR-PDS Scoping Checklist

Project Information

District 07 County LA Route I-110 (Post Mile) 20.10 / 20.92 EA 07-27800K
Project ID# 0700000537

Project Description: **Alternative 4**

This alternative proposes two elevated structures:

- The extension of the viaduct (1,060' in length) from end of the existing I-110 Transit Way to 480'+/- north of the Adams Blvd. OC.
- One-lane fly-over structure (1,040' in length), coming off the proposed viaduct extension and entering at the southwest corner of the intersection of Figueroa St. and 23rd St., to bypass the existing at-grade bottleneck intersections (the Harbor Transit Way/Adams Blvd. & Adams Blvd./Flower Street).

Project Manager	Mirna G. Dagher	Phone # 213-897-2786
DES Project Liaison Engineer* (PLE):	Jan Rutenbergs	Phone # 916-227-7335
DES Special Funded Projects Liaison Engineer:	Richard Hartzell	Phone # 916-227-8772
District Project Engineer:	I-Chung Chu	Phone # (213) 897-0097
DES Consultant Management Engineer:		Phone #

*The Project Liaison Engineer will provide assistance with the completion of this form.

Project Scope

DES acknowledges that scope is in development at this time. The Project Liaison Engineer is available to assist the District in determining the involvement of DES functional units. The intent of the checklist is to gather as much information as possible on the alternatives to accurately identify the involvement of DES.

Describe and identify in the following sections a general description of improvements anticipated as part of the project scope that will require DES functional unit involvement.

Check applicable boxes describing proposed scope of project.

- | | | |
|---|--|---|
| <input type="checkbox"/> New Expressway/Freeway on new alignment | <input type="checkbox"/> Other Roadway Realignment | <input type="checkbox"/> Widen Highway |
| <input type="checkbox"/> Construct Interchange | <input type="checkbox"/> Emergency/Storm Damage | <input type="checkbox"/> Rockfall Project |
| <input type="checkbox"/> Modify Interchange | <input type="checkbox"/> Bridge Widening | <input type="checkbox"/> Left-turn Pocket |
| <input type="checkbox"/> Bridge Replacement | <input type="checkbox"/> Curve Correction | <input type="checkbox"/> Modify Slope |
| (New alignment? <input type="checkbox"/> Yes <input type="checkbox"/> No) | <input type="checkbox"/> Building Project | <input type="checkbox"/> Stabilize Subgrade |
| <input type="checkbox"/> Bridge Rehabilitation | <input type="checkbox"/> Median Barrier Retrofit | <input type="checkbox"/> Stabilize Roadway |
| <input type="checkbox"/> New Bridge | <input type="checkbox"/> Construct Passing Lane | <input type="checkbox"/> Landslide/Slip-out |
| <input type="checkbox"/> Bridge Seismic Retrofit | <input type="checkbox"/> Soundwall/Retaining Wall | <input type="checkbox"/> Bridge Deck Rehab. |
| <input checked="" type="checkbox"/> Other Design: Explain: Construct New Off-ramp Connector & Viaduct | <input type="checkbox"/> Roadway Rehabilitation | <input type="checkbox"/> Bridge Joint Seals |

Briefly describe proposed scope of DES involvement for all alternatives.

Alternative 1: No build

Alternative 2: Two-lane Minimum Build HOV Off-ramp Connector

Alternative 3: Extension of the Viaduct and One-Lane Minimum Build Off-Ramp Connector

Alternative 3: Extension of the Viaduct and One-Lane Minimum Build Off-Ramp Connector (longer extension of alternative 3)

Project Schedule

PA/ED Date	12/31/2013
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Project Cost

For PSR (PDS) projects, the following section is to be used for EACH alternative, provided that the scope is significantly different.

Alternative #

	<u>Project Cost Range (\$ 1000's)</u>	<u>Cost of Largest Structure (\$ 1000's)</u>
Roadway	\$49,000	\$
Structure**	\$67,000	
Total	\$116,000	

**Structure Cost Range to be provided by (check one)

Consultant

Structure Design Technical Liaison.

Project Scope Breakdown by DES Function

Photogrammetry

Note: A Photogrammetry Service Request-PSR (PDS) must be completed and submitted to DES Photogrammetry by the District Photogrammetry Coordinator.

Bridge Design Services (check applicable boxes)

Design by:

- Office of Structure Design
- Structure Maintenance Design
- Office of Structure Contract Management (Consultant Design Oversight)
- Office of Special Funded Projects (Consultant Design Oversight)

Bridge Information:

<input checked="" type="checkbox"/> New Bridge(s)	Number2	Br. Name(s) & No(s). The extension of the Viaduct & Fly-over Off-ramp Connector.
<input checked="" type="checkbox"/> Bridge Replacement(s)	Number2	Br. Name(s) & No(s). Flower St. OC Br #53-1010, Adams Blvd OC Br #53-0893
<input type="checkbox"/> Bridge Widening(s)	Number	Br. Name(s) & No(s).
<input type="checkbox"/> New Bridge over water	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Bridge Replacement over water	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Bridge Widening over water	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Bridge Rail Replacement(s)	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Approach Slab	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Bridge with Railroad Involved	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Bridge w/ Scour Analysis	Number	Br. Name(s) & No(s).
<input type="checkbox"/> Bridge w/ Special Design or Retrofit	Number	Br. Name(s) & No(s).

Other DES functional units required for Structure Work

- Structure Hydraulics (include if bridge is over or adjacent to water)
- Preliminary Investigations (Structure Foundation Plan)
- Geotechnical Services (Structure Foundations)

Wall Design Data for Structure Design & Geotechnical Services

<input type="checkbox"/> Soundwall(s) Number	Est. Max. Ht Est. Length	<input type="checkbox"/> Standard Design	<input type="checkbox"/> Special Design
<input checked="" type="checkbox"/> Ret. walls(s) Number 2	Est. Max. Ht 20 ft Est. Length 3500 ft	<input type="checkbox"/> Standard Design	<input checked="" type="checkbox"/> Special Design
<input type="checkbox"/> MSE Wall(s) Number	Est. Max. Ht Est. Length	<input type="checkbox"/> Standard Design	<input type="checkbox"/> Special Design

Geotechnical Services

Is Oversight for consultant prepared geotechnical reports required?

- Yes No

Has the Geotechnical Design Liaison or other geotechnical person been contacted?

- Yes No If yes, who?

Terrain	<input checked="" type="checkbox"/> Flat	<input type="checkbox"/> Rolling	<input type="checkbox"/> Mountainous
Cuts:	Est. Max Height (ft)15	Est. Volume (CY):1000	<input type="checkbox"/> New <input checked="" type="checkbox"/> Widen
Fills:	Est. Max Height (ft)15	Est. Volume (CY):500	<input type="checkbox"/> New <input checked="" type="checkbox"/> Widen

Sign Structures

<input type="checkbox"/> Overhead Sign Foundations	Number
<input type="checkbox"/> Changeable Message Sign Foundations	Number

Other:

- Special Studies (slope stability, rockfall, erosion, seepage, ground water, settlement, liquefaction, slipout repair, rock slope, etc.) Explain Groundwater and liquefaction might be potential issues.
- Existing Maintenance Problems: Explain:

Technical Specialist Design**Anticipated insertable plan sheet(s) check below:**

<input type="checkbox"/> Culvert(s)	Number
<input checked="" type="checkbox"/> Barrier(s)	Number Type 736 - 4200 ft, Type 60 - 1060 ft
<input type="checkbox"/> Signs and Overhead Structures	Number
<input type="checkbox"/> Other Design:	Explain:

Transportation Architecture Design

<input type="checkbox"/> Design New Building(s)	Explain:
<input type="checkbox"/> Remodel Existing Buildings(s)	Explain:
<input checked="" type="checkbox"/> Bridge Aesthetics Evaluation	Explain: New bridges might need to be aesthetically enhanced.
<input type="checkbox"/> Build scale model	Explain:
<input type="checkbox"/> Other Aesthetics work	Explain:

Electrical, Mechanical, Water & Wastewater Design

<input type="checkbox"/> Pumping Plants	Explain:
<input type="checkbox"/> Movable bridge, drawbridge	Explain:
<input checked="" type="checkbox"/> Lighting control system for facilities	Explain: Needed for the lighting system for the proposed fly-over structure.
<input type="checkbox"/> Sanitary Systems	Explain:

Materials Engineering & Testing Services**Pavement**

<input checked="" type="checkbox"/> Rigid	<input type="checkbox"/> Flexible	Average Grade	Average Superelevation
<input type="checkbox"/> Deflection Study Required		No. of Locations	Lane/miles to be tested

Consultation and Inspection

<input checked="" type="checkbox"/> Loop detectors	<input type="checkbox"/> Signal & Lighting Products	<input checked="" type="checkbox"/> Changeable Message Signs, Closed Circuit TV
<input checked="" type="checkbox"/> Concrete Bridge	<input type="checkbox"/> Steel Bridge	

Materials Engineering & Testing Services (Continued)**Corrosion Tests**

<input checked="" type="checkbox"/> Soil	<input checked="" type="checkbox"/> Concrete	<input type="checkbox"/> Cathodic Protection System
--	--	---

Other

<input type="checkbox"/> Special Products:	Explain
--	---------

Division of Engineering Services Workload Estimate for PA/ED				
WBS	Alternative Number			
	1	2	3	4
100.1	0	0.43	0.58	0.91
160	0	0.52	0.95	1.29
175	0	0.07	0.12	0.18
Total PY's per Alternative	0	1.02	1.65	2.38

Additional Studies, Investigations or Research from DES

Identify additional studies or investigations that may be required from DES Functional Units.

Prepared By:  Date 5/25/2012

Please submit this form to DES, to the attention of the Project Liaison Engineer, Office of Project Delivery, in the subdivision of Program/Project & Resource Management.

DES will provide a Structure Cost Estimate Range, for each alternative and a resource summary estimate to be included in the project workplan.

ATTACHMENT L

TRANSPORTATION CONCEPT REPORT (TCR)
RECOMMENDATION

**ROUTE CONCEPT REPORT SUMMARY
ROUTE 110 - HARBOR/PASADENA FREEWAY**

07-LA-110 P.M. 0.00/33.15

Seg.	Limits	1988	1988	2010	Con.	Con.	Ultimate
		Fac.	LOS	LOS	Fac.	LOS	Tr. Corr.
1	9th St. to Beg. Fwy.	6C	C	C	6C	C	6C
2	Beg Fwy. to Rte. 1.(PCH)	6F	D	C	8F	C	8F+2HOV
3	Rte 1 (PCH)to Rte 405	8F	F0	F3	10F	F0	10F+2HOV
4	Rte 405 to Rte 91	10F	F0	F1	10F	F1	10F+2HOV
5	Rte 91 to Manchester Av	8F	F0	F0	8F+2HOV	F0	8F+2HOV
6	Manchester Av to Rte 10	8F	F1	F0	8F+2HOV	F0	8F+2HOV
7	Rte 10 to Rte 101	7F	F2	F3	8F	F3	8F+2HOV
8	Rte 101 to Rte 5	8F	F1	F3	8F	F3	8F+2HOV
9	Rte 5 to Av 64	6F	F1	F1	6F	F1	6F
10	Ave 64 to Glenarm St	6F	D	F0	6F	F0	6F
11	Glenarm St to Colorado Bl	6C	B	C	6F	C	6F

Route Concept Rationale

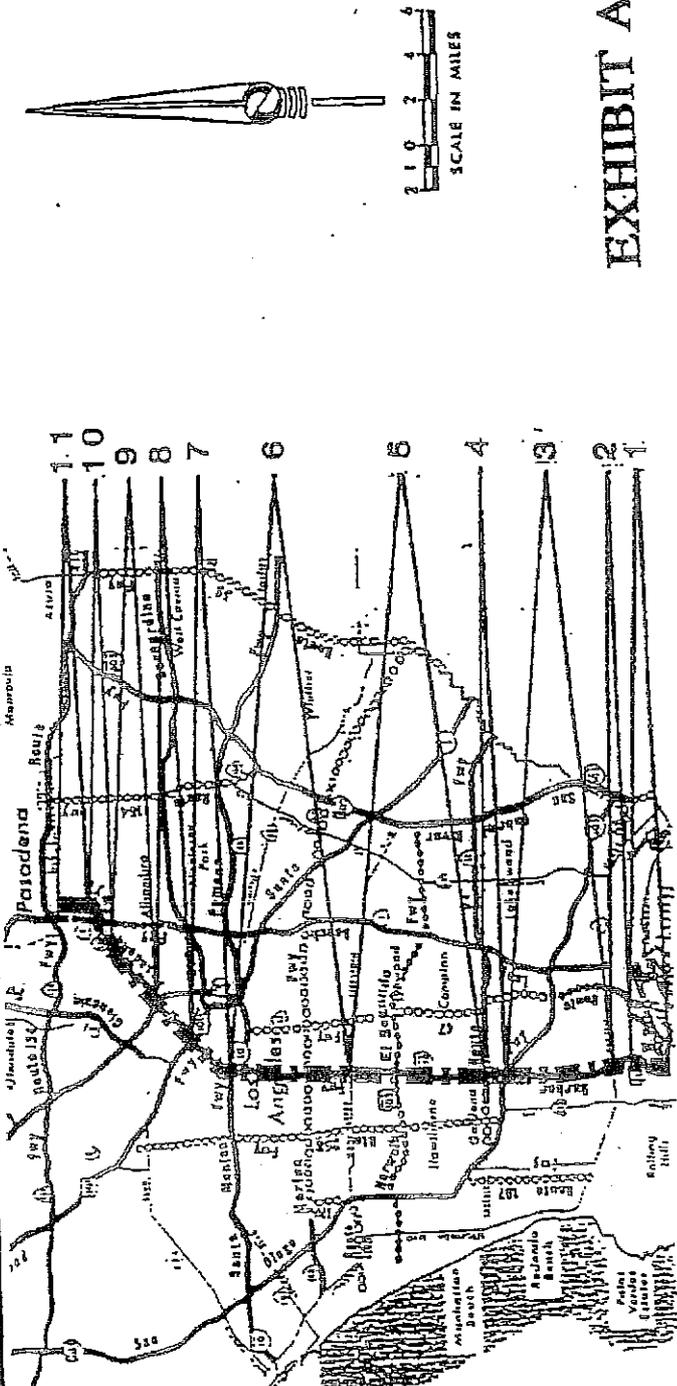
Within District 7, existing and projected peak period operating conditions on the majority of the transportation facilities in the metropolitan area are generally less than desired. Typically, LOS conditions are F0 or lower. Anticipated growth rates translate to ever increasing travel demand. Various constraints limit the opportunities to improve future travel conditions significantly over existing levels. Consequently, a LOS of F0 (peak period congestion for up to one hour) is the minimum performance conditions accepted on the metropolitan freeways in the district. LOS D is the accepted minimum performance on conventional highways.

Improvements

Segs.	Limits	Exist Fac.	Con. Fac.	Needed Improvement
<u>Harbor Freeway</u>				
1-2	9th St. to Rte.1	6C/6F	6C/8F	None
3	Rte. 1 to Rte. 405	8F	10F	Add 1 lane ea. dir.
4-6	Rte. 405 to Rte. 10	10F/8F	10F/8F +2HOV	None
<u>Pasadena Freeway</u>				
7-8	Rte. 10 to Rte. 5	7F/8F	8F	None
9-11	Rte. 5 to Colorado	6F/6C	6F/6C	None

ROUTE 110
LOCATION MAP

EXHIBIT A - ROUTE 110		DESCRIPTION	1988		2010		2010		IMP. LOS	IMPROVEMENT DESCRIPTION
Date	PM		FAC	LOS	FAC	LOS	FAC	LOS		
1	0.00/0.91	9TH STREET/DEG RTE 110	6C	C	6C	C	6C	C	NO CAPACITY IMPROVEMENT	
2	0.91/4.06	BUG RTE 110/RTE 1 (P.C.11.)	6F	D	8F	C	8F	C	NO CAPACITY IMPROVEMENT	
3	4.06/8.78	RTE 1 (P.C.11.) /RTE 405	8F	F0	8F	F3	10F	F0	ADD 1 LANE EACH DIRECTION	
4	8.78/9.87	RTE 405/RTE 91	10F	F0	10F	F1	10F	F1	NO CAPACITY IMPROVEMENT	
5	9.87/15.98	RTE 91/MANCHESTER AV	8F	F0	8F+2H	F0	8F+2H	F0	NO CAPACITY IMPROVEMENT	
6	15.98/21.44	MANCHESTER AV/RTE 10	8F	F1	8F+2H	F0	8F+2H	F0	NO CAPACITY IMPROVEMENT	
7	21.44/23.73	RTE 10/RTE 101	7F	F2	8F	F3	8F	F3	NO CAPACITY IMPROVEMENT	
8	23.73/25.75	RTE 101/RTE 5	8F	F1	8F	F3	8F	F3	NO CAPACITY IMPROVEMENT	
9	25.75/29.03	RTE 5/AVE 64	8F	F1	6F	F1	6F	F1	NO CAPACITY IMPROVEMENT	
10	29.03/31.91	AVE 64/GLUNARM STREET	6F	D	6H	F0	6H	F0	NO CAPACITY IMPROVEMENT	
11	31.91/33.15	GLUNARM STREET/COLORADO BL.	6F	E	6F	C	6F	C	NO CAPACITY IMPROVEMENT	



DISTRICT 07
HIGHWAY SYSTEM
L.A. COUNTY

EXHIBIT A

ROUTE CONCEPT REPORT
DISTRICT 07
ROUTE 110

I. STATEMENT OF PLANNING INTENT

This Route Concept Report (RCR) is a planning document that describes the Department's basic approach to the development of Route 110. Considering reasonable financial constraints and projected travel demand over a 20 year planning period, the RCR defines an appropriate type of facility and level of service for this route. The object of this effort is to provide a better basis for the development of the State Transportation Improvement Program and for determination of the appropriate concept for future highway projects.

Route Concept Reports are prepared by District staff, referring as needed to local and or regional agency studies for support data. They will be updated as conditions change or new information is obtained.

The Route Concept Report is a preliminary planning phase that leads to subsequent programming and the project development process. As such, the specific nature of proposed improvements (i.e., roadway width, number of lanes, access control, etc.) may change in later project development stages, with final determinations made during the project report and design phases. Roadway widths, as discussed in the Route Concept Reports, are used for the purpose of estimating improvement costs, and may change depending upon operating conditions and design standards at the time of actual project development.

II. ROUTE ANALYSIS

Description

Pursuant to the Statutes relating to the California Department of Transportation, Route 110 is from San Pedro to Colorado Boulevard in Pasadena.

Route 110, the Harbor/Pasadena Freeways, traverses the Los Angeles Central Business District (LACBD), and the unincorporated parts of the county as well as the Cities of Carson, Los Angeles, South Pasadena and Pasadena. The topography along the corridor is primarily flat land of the Los Angeles basin.

Purpose of Route

The purpose of the route is shown in the following table:

<u>Seq.</u>	<u>Description</u>	<u>Route Purpose</u>	<u>Fac. Type</u>
<u>Harbor Freeway</u>			
1	9th St. to Beg. Fwy.	Commuter Access	Conv.
2-6	Beg. Fwy. to Rte. 10	Commuter Access to & from LACBD, freight-hauling to & from port area	Fwy.
<u>Pasadena Freeway</u>			
7-10	Rte. 10 to Glenarm St.	Commuter Access	Fwy.
11	Glenarm to Colorado Bl.	"	Conv.

Route Segmentation and Functional Classification

Route 110 is designated Federal Aid Interstate (FAI) south of Interstate 10 and Federal Aid Urban (FAU) north of Interstate 10. The route is examined in eleven segments for traffic analysis, connections to local streets or State highways, and freeway interchanges. The criteria for segmentation and function class for each segment follows:

<u>Seq.</u>	<u>Criteria</u>	<u>Function Class</u>
<u>Harbor Freeway</u>		
1	Local St. to Fwy.	P4-All within urban area without control
2	Fwy. to St. Hwy.	P1P-Urban Principal Arterial
3	St. Hwy. to Fwy.	" " "
4	Fwy. to Fwy.	" " "
5	Fwy. to Local St.	" " "
6	Local St. to Fwy.	" " "
<u>Pasadena Freeway</u>		
7	Fwy. to Fwy. IC	P3-All within urban area with control
8	Fwy. to Fwy. IC	" " "
9	Fwy. IC/Local St.	" " "
10	Local St./Fwy. IC	" " "
11	Fwy. to Fwy. IC	P4-All within urban area without control

Land Use

Land use along the highly urbanized Route 110 corridor varies from industrial to residential to commercial. In addition,

the following traffic generators prevail along the corridor:

- o Port of Los Angeles
- o Ports O'Call Village
- o Los Angeles Harbor College
- o California State University Dominguez Hills
- o Los Angeles Trade Technical College
- o Los Angeles Sports Arena
- o Los Angeles Coliseum
- o Los Angeles County Museums
- o Exposition Park
- o University of Southern California
- o Los Angeles Convention Center
- o Downtown Los Angeles
- o Dodger Stadium
- o Pasadena Rose Bowl

The following table shows land use density, growth, source of future growth and local development plans for growth on the route:

<u>Seq.</u>	<u>Density</u>	<u>Land Use</u>	<u>Growth</u>	<u>Source of Future Growth</u>	<u>Local Development Plans</u>
<u>Harbor Freeway</u>					
1	Urban	Industrial	Moderate	Infilling/ Recycling	Moderate
2-6	Urban	Residential/ Commercial	Moderate	"	Moderate
<u>Pasadena Freeway</u>					
7-10	Urban	Commercial	Moderate	Infilling/ Recycling	Moderate
11	Urban	Residential/ Commercial	Low	"	Low

Route 110 traverses seven Southern California Association of Governments (SCAG) Regional Statistical Areas (RSA's).

These are as follows:

Harbor Freeway
 Palos Verdes
 South Bay
 East Central
 West Central
 LACBD

Pasadena Freeway
 LACBD
 West San Gabriel Valley

Growth data for these areas is illustrated for population, employment, and housing respectively in Graphs 1, 1A, and 1B for the Harbor Freeway, and Graphs 2, 2A and 2B for the Pasadena Freeway, on pages 4 through 9 of this RCR.

ATTACHMENT M

TRANSPORTATION MANAGEMENT PLAN (TMP)

TRANSPORTATION MANAGEMENT PLAN DATASHEET

(Preliminary TMP Elements and Costs)

Co/Rte/PM LA-110, 20.2/20.7 EA 27800K Alternative No. 2

Project Limit At Adams Blvd

Project Description Construct HOV off-ramp.

1) Public Information

- a. Brochures and Mailers \$
- b. Press Release
- c. Paid Advertising \$100,000
- d. Public Information Center/Kiosk \$
- e. Public Meeting/Speakers Bureau
- f. Telephone Hotline
- g. Internet
- h. Others \$

2) Motorists Information Strategies

- a. Changeable Message Signs (Fixed) \$0
- b. Changeable Message Signs (Portable) \$
- c. Ground Mounted Signs \$
- d. Highway Advisory Radio \$
- e. Caltrans Highway Information Network (CHIN)
- f. Others \$

3) Incident Management

- a. Construction Zone Enhanced Enforcement Program (COZEEP) \$475,000
- b. Freeway Service Patrol \$
- c. Traffic Management Team
- d. Helicopter Surveillance \$
- e. Traffic Surveillance Stations (Loop Detector and CCTV) \$
- f. Others \$

4) Construction Strategies

- a. Lane Closure Chart
- b. Reversible Lanes
- c. Total Freeway Mainline Closure
- d. Extended Weekend Closure
- e. Contra Flow
- f. Truck Traffic Restrictions \$ _____
- g. Reduced Speed Zone \$ _____
- h. Connector and Ramp Closures
- i. Incentive and Disincentive \$ _____
- j. Moveable Barrier \$ _____
- k. Others \$ _____

5) Demand Management

- a. HOV Lanes/Ramps (New or Convert) \$ _____
- b. Park and Ride Lots \$ _____
- c. Rideshare Incentives \$ _____
- d. Variable Work Hours
- e. Telecommute
- f. Ramp Metering (Temporary Installation) \$ _____
- g. Ramp Metering (Modify Existing) \$ _____
- h. Others \$ _____

6) Alternative Route Strategies

- a. Add Capacity to Freeway Connector/Ramps \$ _____
- b. Street Improvement (widening, traffic signal... etc) \$ _____
- c. Traffic Control Officers \$ _____
- d. Parking Restrictions
- e. Others \$ _____

7) Other Strategies

- a. Application of New Technology \$ _____
- e. Others \$ _____

TOTAL ESTIMATED COST OF TMP ELEMENTS = \$575,000

Project Notes:

1. The Public Awareness Campaign strategy was prepared by Public Affairs.
2. The estimate of COZEEP for this project was provided by construction traffic manager.
3. Existing Changeable Message Signs (CMS) may be utilized to manage traffic during construction:
 - Route 110: NB, #16 (Gage Ave), #21 (Exposition Blvd).
 - SB, #10 (9th St), #46 (Academy Rd).
 - Route 10: EB, #18 (Western Ave).
 - WB, #15 (Alameda St).
4. Traffic Management Team will be needed during full freeway closure.
5. It is anticipated all work will be performed behind K-rail and routine lane closures. All closures shall conform with the hours provided in the Maintaining Traffic Specifications.

PREPARED BY



Sarah Horn, T.E.

DATE

2/24/2010

APPROVAL RECOMMENDED BY

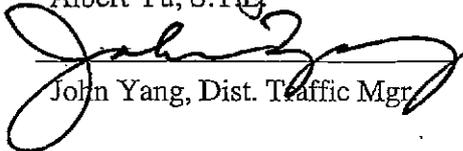


Albert Yu, S.T.E.

DATE

2-24-2010

APPROVED BY



John Yang, Dist. Traffic Mgr.

DATE

2/24/10

TRANSPORTATION MANAGEMENT PLAN DATASHEET

(Preliminary TMP Elements and Costs)

Co/Rte/PM LA-110, 20.2/20.7 EA 27800K Alternative No. 3,4

Project Limit At Adams Blvd

Project Description Construct HOV off-ramp.

1) Public Information

<input checked="" type="checkbox"/> a. Brochures and Mailers	<u>\$50,000</u>
<input checked="" type="checkbox"/> b. Press Release	
<input checked="" type="checkbox"/> c. Paid Advertising	<u>\$500,000</u>
<input checked="" type="checkbox"/> d. Public Information Center/Kiosk	<u>\$50,000</u>
<input checked="" type="checkbox"/> e. Public Meeting/Speakers Bureau	<u>\$10,000</u>
<input checked="" type="checkbox"/> f. Telephone Hotline	<u>\$10,000</u>
<input checked="" type="checkbox"/> g. Internet	
<input checked="" type="checkbox"/> h. Others <u>Internet Consultant Services</u>	<u>\$100,000</u>

2) Motorists Information Strategies

<input checked="" type="checkbox"/> a. Changeable Message Signs (Fixed)	<u>\$0</u>
<input type="checkbox"/> b. Changeable Message Signs (Portable)	<u>\$</u>
<input type="checkbox"/> c. Ground Mounted Signs	<u>\$</u>
<input type="checkbox"/> d. Highway Advisory Radio	<u>\$</u>
<input type="checkbox"/> e. Caltrans Highway Information Network (CHIN)	
<input type="checkbox"/> f. Others _____	<u>\$</u>

3) Incident Management

<input checked="" type="checkbox"/> a. Construction Zone Enhanced Enforcement Program (COZEEP)	<u>\$1,000,000</u>
<input type="checkbox"/> b. Freeway Service Patrol	<u>\$</u>
<input type="checkbox"/> c. Traffic Management Team	
<input type="checkbox"/> d. Helicopter Surveillance	<u>\$</u>
<input type="checkbox"/> e. Traffic Surveillance Stations (Loop Detector and CCTV)	<u>\$</u>
<input type="checkbox"/> f. Others _____	<u>\$</u>

4) Construction Strategies

<input checked="" type="checkbox"/>	a. Lane Closure Chart	
<input type="checkbox"/>	b. Reversible Lanes	
<input type="checkbox"/>	c. Total Freeway Mainline Closure	
<input type="checkbox"/>	d. Extended Weekend Closure	
<input type="checkbox"/>	e. Contra Flow	
<input type="checkbox"/>	f. Truck Traffic Restrictions	\$ _____
<input type="checkbox"/>	g. Reduced Speed Zone	\$ _____
<input type="checkbox"/>	h. Connector and Ramp Closures	
<input checked="" type="checkbox"/>	i. Incentive and Disincentive	\$5,000,000
<input type="checkbox"/>	j. Moveable Barrier	\$ _____
<input type="checkbox"/>	k. Others _____	\$ _____

5) Demand Management

<input type="checkbox"/>	a. HOV Lanes/Ramps (New or Convert)	\$ _____
<input type="checkbox"/>	b. Park and Ride Lots	\$ _____
<input type="checkbox"/>	c. Rideshare Incentives	\$ _____
<input type="checkbox"/>	d. Variable Work Hours	
<input type="checkbox"/>	e. Telecommute	
<input type="checkbox"/>	f. Ramp Metering (Temporary Installation)	\$ _____
<input type="checkbox"/>	g. Ramp Metering (Modify Existing)	\$ _____
<input type="checkbox"/>	h. Others _____	\$ _____

6) Alternative Route Strategies

<input type="checkbox"/>	a. Add Capacity to Freeway Connector/Ramps	\$ _____
<input type="checkbox"/>	b. Street Improvement (widening, traffic signal... etc)	\$ _____
<input type="checkbox"/>	c. Traffic Control Officers	\$ _____
<input type="checkbox"/>	d. Parking Restrictions	
<input type="checkbox"/>	e. Others _____	\$ _____

7) Other Strategies

<input type="checkbox"/>	a. Application of New Technology	\$ _____
<input type="checkbox"/>	e. Others _____	\$ _____

TOTAL ESTIMATED COST OF TMP ELEMENTS = \$6,720,000

Project Notes:

1. Based on the limited information provided by the Office of Project and Special Studies, all the cost estimates in this TMP Datasheet are subject to change when more information is available.

2. Per emails and conversation with Project Engineer, a temporary structure will be built to keep the Flower St open to all traffic and keep the newly built Metro Expo line in operation when Flower St overcrossing is removed and replaced. The incentive for contractor to finish the Flower St overcrossing construction is estimated \$5,000,000.

3. Existing Changeable Message Signs (CMS) may be utilized to manage traffic during construction:

Route 110: NB, #16 (Gage Ave), #21 (Exposition Blvd).

SB, #10 (9th St), #46 (Academy Rd).

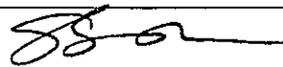
Route 10: EB, #18 (Western Ave).

WB, #15 (Alameda St).

4. Traffic Management Team will be needed during full freeway closure.

5. All closures shall conform with the hours provided in the Maintaining Traffic Specifications.

PREPARED BY

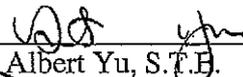


Sarah Horn, T.E.

DATE

2/24/2010

APPROVAL RECOMMENDED BY

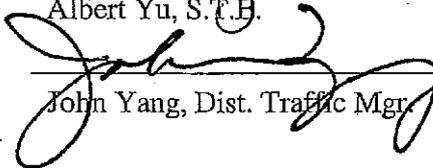


Albert Yu, S.T.E.

DATE

2-24-2010

APPROVED BY



John Yang, Dist. Traffic Mgr.

DATE

2/24/10

ATTACHMENT N

TASAS TABLE B

California Department of Transportation
Table C - Potential Investigation Locations

Location Description	SCL R RMP U LNS S	Confidence Level	District 07 ALL Accidents		Total Accidents / Significance			AVE ADT		12 MOS RATE ACCS/MV-MVM			Req
			99.5 Interval 01-JUL-04 thru 30-JUN-07	07 Interval .2 MI	36 mo. ACCS	24 mo. ACCS	12 mo. ACCS	6 mo. ACCS	3 mo. ACCS	Main	X-St.	F+I	
101 VEN 5.168 101/NB ON FR LYNN ROAD	OD U R 12	33 Y	23 Y	13 Y	9 Y	1 N	9.6	-	0.57	3.71	0.32	0.80+	Req
101 VEN 6.741 101/NB OFF TO BORCHARD RD	FF U R 18	15 Y	12 Y	7 Y	6 Y	4 Y	5.0	-	0.55	3.84	0.33	0.90+	Req
101 VEN 14.663 101/SB ON CARMEN DR	OD U R 12	11 Y	10 Y	5 Y	2 N	0 N	0.7	-	0.00	21.07	0.32	0.80+	Req
101 VEN 15.653 101/NB OFF TO LAS POSAS RD	FD U R 10	25 N	17 N	10 N	8 Y	3 N	9.5	-	0.58	2.88	0.60	1.50+	Req
105 LA R011.280 TO R011.480 EAST	04D U H 66	39 N	26 N	17 N	12 Y	6 N	115.0	-	0.95	2.03	0.33	1.04	Req
105 LA R 13.861 105/EBON FR SB RTE 710	OE U R 60	9 N	8 Y	6 Y	3 N	3 N	21.0	-	0.39	0.78	0.06	0.20+	Req
110 LA R001.367 TO R001.567 NORTH	03D U H 65	19 Y	17 Y	8 Y	3 N	0 N	44.5	-	1.54	2.46	0.22	0.71	Req
110 LA R001.367 TO R001.567 SOUTH	04D U H 65	23 Y	15 Y	8 Y	5 N	4 Y	44.5	-	0.92	2.46	0.22	0.71	Req
110 LA 009.817 TO 010.017 SOUTH	06D U H 67	36 N	31 Y	18 Y	7 N	3 N	124.8	-	0.33	1.98	0.29	0.97	Req
110 LA 014.818 TO 015.018 NORTH	04D U H 65	83 Y	55 Y	30 Y	15 N	5 N	158.2	-	0.87	2.60	0.48	1.51	Req
110 LA 018.975 TO 019.175 SOUTH	06D U H 67	84 Y	62 Y	28 Y	12 N	6 N	163.2	-	0.84	2.35	0.35	1.17	Req
110 LA 019.415 TO 019.615 SOUTH	07D U H 67	57 Y	36 N	24 Y	9 N	5 N	154.8	-	0.89	2.12	0.33	1.12	Req
110 LA 022.006 TO 022.206 SOUTH	05D U H 65	72 Y	53 Y	27 Y	13 N	4 N	143.8	-	0.57	2.57	0.45	1.41	Req
110 LA 23.58 110/SEG NBOFF TO NB RTE 101	FC U R 06	49 Y	35 Y	22 Y	13 Y	7 N	49.0	-	0.28	1.23	0.21	0.60+	Req
110 LA 023.250 TO 023.450 SOUTH	07D U H 67	138 Y	92 Y	53 Y	26 Y	13 Y	137.2	-	0.90	5.29	0.31	1.04	Req
110 LA 024.925 TO 025.125 NORTH	04R U H 65	40 Y	28 Y	15 Y	7 N	1 N	92.7	-	0.59	2.22	0.22	0.72	Req
110 LA 24.727 110/SB OFF STADIUM WAY	FJ U R 30	13 Y	12 Y	5 Y	1 N	1 N	2.4	-	0.00	5.71	0.31	0.90+	Req
110 LA 026.884 TO 027.084 NORTH	03D U H 64	29 Y	22 Y	11 N	8 Y	5 N	63.5	-	0.65	2.37	0.34	1.10	Req

Req = investigation required (4 or more accs. & significant in 12, 6, or 3 months)
+ denotes MV used in rates.

OTM22130

Table B - Selective Accident Rate Calculation

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

1. TASAS - TSN has officially replaced the TASAS - "Legacy" database.
2. Reports from TSN are to be used and interpreted by the California Department of Transportation (Caltrans) officials or authorized representative.
3. Electronic versions of these reports may be emailed between Caltrans' employees only using the State computer system.
4. The contents of these reports shall be considered confidential and may be privileged pursuant to 23 U.S.C. Section 409, and are for the sole use of the intended recipient(s). Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message. Do not print, copy or forward.

OTM22130

Table B - Selective Accident Rate Calculation

Report Parameters-

Event ID: 2727741
 Request Name: DON TANG 149
 Ref Date: 02/25/2009

Request- & Line	L D L	O I S	C R C	Route/Location	Begin Date	End Date	Rate Type	Out Seq	Override Rates			Override ADT			Req. Type	Com- bine?	Excl Ramp?
									Rate	Inj%	Fat%	Main	Cross	ADT			
✓ 1 1	R	T	I	07 LA 110 020.478 - 07 LA 110 020.479	01-APR-05	31-MAR-08	N	L						N	N	N	N
1 2	R	T	I	07 LA 110 020.540 - 07 LA 110 020.541	01-APR-05	31-MAR-08	N	L						N	N	N	N

Event Log:

Job Id is : 396452 Accidents Table B Request DON TANG 149 Submitted by T7YSFAIL
 07 LA 110 20.478 - 07 LA 110 20.479 04/01/2005 TO 03/31/2008
 07 LA 110 20.54 - 07 LA 110 20.541 04/01/2005 TO 03/31/2008

Location Description	Rate Group (RUS)	No. of Accidents / Significance	No. of Accidents / Significance			ADT Main X-St	Total MV+ or MVNM	Actual		Accident Rates Average							
			Tot	Fat	Inj			F+I	Fat	Tot	Fat	F+I	Tot				
07 LA 110 020.478 110/NB OFF TO ADAMS BLVD 0001-0001 2005-04-01 36 mo.	R 10 U	14	0	3	3	12	0	5	0	9.8	10.74 +	0.000	.28	1.30	0.005	.61	1.50
07 LA 110 020.540 110/NB OFF VIADUCT TO ADAMS BLV 0001-0002 2005-04-01 36 mo.	R 48 U	8	0	5	5	7	0	4	0	8.1	8.88 +	0.000	.56	.90	0.004	.28	.80

Accident Rates expressed as: # of accidents / Million vehicle miles

+ denotes that Million Vehicles (MV) used in accident rates instead (for intersections and ramps).

For Ramps RUS only considers R(Rural) U(Urban)

California Department of Transportation

OTM22200

TSAR - ACCIDENT DETAIL

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

1. TASAS - TSN has officially replaced the TASAS - "Legacy" database.
2. Reports from TSN are to be used and interpreted by the California Department of Transportation (Caltrans) officials or authorized representative.
3. Electronic versions of these reports may be emailed between Caltrans' employees only using the State computer system.
4. The contents of these reports shall be considered confidential and may be privileged pursuant to 28 U.S.C. Section 409, and are for the sole use of the intended recipient(s). Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message. Do not print, copy or forward.

California Department of Transportation

OTM22200

TSAR - ACCIDENT DETAIL

REPORT PARAMETERS:

REPORT DATE : 02/25/2009
REFERENCE DATE : 02/25/2009
SUBMITTOR : TYSFAIL
REPORT TITLE : ALL RAMP ACCIDENTS ON LA-110, PM 20.478, ...
EVENT ID : TANG, LOG #149

Total Accidents Retrieved:

14

LOCATION CRITERIA:

FROM: 07-LA-110 020.478 TO: 07-LA-110 020.479

SELECTION CRITERIA:

1 1 AND 508 - FILE TYPE = R

Accidents Date Range:

From -- 04/01/2005 To -- 03/31/2008

California Department of Transportation

OTM22215

TSAR - ACCIDENT SUMMARY

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

1. TASAS - TSN has officially replaced the TASAS - "Legacy" database.
2. Reports from TSN are to be used and interpreted by the California Department of Transportation (Caltrans) officials or authorized representative.
3. Electronic versions of these reports may be emailed between Caltrans' employees only using the State computer system.
4. The contents of these reports shall be considered confidential and may be privileged pursuant to 23 U.S.C. Section 409, and are for the sole use of the intended recipient(s). Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message. Do not print, copy or forward.

California Department of Transportation

OTM22215

TSAR - ACCIDENT SUMMARY

REPORT PARAMETERS:

REPORT DATE : 02/25/2009
REFERENCE DATE : 02/25/2009
SUBMITTOR : TYSFAIL
REPORT TITLE : ALL RAMP ACCIDENTS ON LA-110, EM 20.478,
FOR TIME PERIOD 4/1/05 THRU 3/31/08, DON
EVENT ID : TANG, LOG #149
LOCATION CRITERIA: 2727889

FROM: 07-LA-110 020.478 TO: 07-LA-110 020.479

SELECTION CRITERIA:

1 1 AND 508 - FILE TYPE = R

Accidents Date Range:

From -- 04/01/2005 To -- 03/31/2008

TASAS SELECTIVE RECORD RETRIEVAL
TSAR - ACCIDENT SUMMARY
ALL RAMP ACCIDENTS ON LA-110, PM 20:478, FOR TIME PERIOD 4/1/05 THRU 3/31/08, DON TANG, LOG #149

TOTAL ACCIDENTS	FATAL	INJURY	PDO	KILLED	PERSONS INJURED	MOTOR VEHICLES INVOLVED	CODE	NUMBER	PCT	CODE	NUMBER	PCT	CODE
14	0	3	11	0	3	2	1	14.3	14.3	1	2	14.3	1
						8	2	57.1	57.1	2	8	57.1	2
						3	3	21.4	21.4	3	3	21.4	3
						1	>3	7.1	7.1	>3	1	7.1	4
						0		0.0	0.0		0	0.0	5
						0		0.0	0.0		0	0.0	6
						0		0.0	0.0		0	0.0	7
						0		0.0	0.0		0	0.0	8
						0		0.0	0.0		0	0.0	9

<--- HOUR OF DAY --->		<--- ACCESS CONTROL --->		<--- SIDE OF HIGHWAY --->	
NUMBER	PCT	NUMBER	PCT	NUMBER	PCT
0	0.0	0	0.0	14	100.0
0	0.0	0	0.0	0	0.0
0	0.0	14	100.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0</		

TASAS SELECTIVE RECORD RETRIEVAL
TSAR - ACCIDENT SUMMARY
ALL RAMP ACCIDENTS ON LA-110, PM 20:478, FOR TIME PERIOD 4/1/05 THRU 3/31/08, DON TANG, LOG #149

PRIMARY COLLISION FACTOR -->		TYPE OF COLLISION --->		ROADWAY CONDITION --->	
NUMBER	PCT	NUMBER	PCT	NUMBER	PCT
1	7.1	0	0.0	0	0.0
0	0.0	1	7.1	0	0.0
0	0.0	9	64.3	0	0.0
3	64.3	0	0.0	0	0.0
0	0.0	1	7.1	0	0.0
0	0.0	1	7.1	0	0.0
0	0.0	0	0.0	0	0.0
1	7.1	0	0.0	12	85.7
0	0.0	2	14.3	2	14.3
0	0.0	0	0.0	0	0.0

TYPE OF COLLISION --->		ROADWAY CONDITION --->	
NUMBER	PCT	NUMBER	PCT
0	0.0	0	0.0
1	7.1	0	0.0
9	64.3	0	0.0
0	0.0	0	0.0
1	7.1	0	0.0
1	7.1	0	0.0
0	0.0	0	0.0
0	0.0	12	85.7
2	14.3	2	14.3
0	0.0	0	0.0

TYPE OF COLLISION --->		ROADWAY CONDITION --->	
NUMBER	PCT	NUMBER	PCT
0	0.0	0	0.0
1	7.1	0	0.0
9	64.3	0	0.0
0	0.0	0	0.0
1	7.1	0	0.0
1	7.1	0	0.0
0	0.0	0	0.0
0	0.0	12	85.7
2	14.3	2	14.3
0	0.0	0	0.0

WEATHER ----->		LIGHTING ----->		ROAD SURFACE ----->	
NUMBER	PCT	NUMBER	PCT	NUMBER	PCT
13	92.9	8	57.1	12	85.7
0	0.0	0	0.0	0	0.0
0	0.0	5	35.7	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	2	14.3
0	0.0	0	0.0	0	0.0
1	7.1	1	7.1	0	0.0
0	0.0	0	0.0	0	0.0

WEATHER ----->		LIGHTING ----->		ROAD SURFACE ----->	
NUMBER	PCT	NUMBER	PCT	NUMBER	PCT
8	57.1	8	57.1	12	85.7
0	0.0	0	0.0	0	0.0
5	35.7	5	35.7	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	2	14.3
0	0.0	0	0.0	0	0.0
1	7.1	1	7.1	0	0.0
0	0.0	0	0.0	0	0.0

WEATHER ----->		LIGHTING ----->		ROAD SURFACE ----->	
NUMBER	PCT	NUMBER	PCT	NUMBER	PCT
13	92.9	8	57.1	12	85.7
0	0.0	0	0.0	0	0.0
0	0.0	5	35.7	0	0.0
0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	2	14.3
0	0.0	0	0.0	0	0.0
1	7.1	1	7.1	0	0.0
0	0.0	0	0.0	0	0.0

RIGHT OF WAY CONTROL ----->		HIGHWAY GROUP ----->		INTERSECTION/RAMP ACCIDENT LOCATION -->	
NUMBER	PCT	NUMBER	PCT	NUMBER	PCT
5	35.7	0	0.0	10	71.4
0	0.0	0	0.0	1	7.1
0	0.0	14	100.0	0	0.0
8	57.1	0	0.0	3	21.4
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0

RIGHT OF WAY CONTROL ----->		HIGHWAY GROUP ----->		INTERSECTION/RAMP ACCIDENT LOCATION -->	
NUMBER	PCT	NUMBER	PCT	NUMBER	PCT
5	35.7	0	0.0	10	71.4
0	0.0	0	0.0	1	7.1
0	0.0	14	100.0	0	0.0
8	57.1	0	0.0	3	21.4
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0

RIGHT OF WAY CONTROL ----->		HIGHWAY GROUP ----->		INTERSECTION/RAMP ACCIDENT LOCATION -->	
NUMBER	PCT	NUMBER	PCT	NUMBER	PCT
5	35.7	0	0.0	10	71.4
0	0.0	0	0.0	1	7.1
0	0.0	14	100.0	0	0.0
8	57.1	0	0.0	3	21.4
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0

RIGHT OF WAY CONTROL ----->		HIGHWAY GROUP ----->		INTERSECTION/RAMP ACCIDENT LOCATION -->	
NUMBER	PCT	NUMBER	PCT	NUMBER	PCT
5	35.7	0	0.0	10	71.4
0	0.0	0	0.0	1	7.1
0	0.0	14	100.0	0	0.0
8	57.1	0	0.0	3	21.4
1	7.1	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0

TASAS SELECTIVE RECORD RETRIEVAL
TSAR - PARTY SUMMARY
ALL RAMP ACCIDENTS ON LA-110, PM 20:478, FOR TIME PERIOD 4/105 THRU 3/51/08, DON TANG, LOG #149

PARTY TYPE ----->			MOVEMENT PRECEDING COLLISION -->			OTHER ASSOCIATED FACTORS ----->		
NUMBER	PCT	CODE	NUMBER	PCT	CODE	NUMBER	PCT	CODE
12	85.7	A-PASNGR CAR/STA WAGON	9	64.3	A-STOPPED	0	0.0	1-INFLUENCE ALCOHOL
0	0.0	B-PASNGR CAR W/TRAILER	11	78.6	B-PROCEEDED STRAIGHT	0	0.0	2-FOLLOW TOO CLOSE
1	7.1	C-MOTORCYCLE	0	0.0	C-RAN OFF ROAD	0	0.0	3-FAILURE TO YIELD
1	7.1	D-PICKUP/PANEL TRUCK	1	7.1	D-MAKING RIGHT TURN	0	0.0	4-IMPROPER TURN
0	0.0	E-PICKUP/PANEL W/TRAILER	1	7.1	E-MAKING LEFT TURN	1	7.1	5-SPEEDING
1	7.1	F-TRUCK/TRUCK TRACTOR	0	0.0	F-MAKING U TURN	0	0.0	6-OTHER VIOLATIONS
0	0.0	G-TRUCK/TRACTOR & 1 TRAILER	1	7.1	G-BACKING	0	0.0	A-CELL PHONE* (INATTN)
0	0.0	2-TRUCK/TRACTOR & 2 TRAILER	0	0.0	H-SLOWING, STOPPING	0	0.0	B-ELECTRC EQUIP* (INATTN)
0	0.0	3-TRUCK/TRACTOR & 3 TRAILER	0	0.0	I-PASS OTHER VEHICLE	0	0.0	C-RADIO/CD/HDPHN* (INATTN)
0	0.0	4-SINGLE UNIT TANKER	1	7.1	J-CHANGING LANES	0	0.0	D-SMOKING* (INATTN)
0	0.0	5-TRUCK/TRA & 1 TANK TRAILR	0	0.0	K-PARKING	0	0.0	E-VISION OBSCUREMENT
0	0.0	6-TRUCK/TRA & 2 TANK TRAILR	0	0.0	L-ENTER FROM SHLDR	0	0.0	F-INATTENTION - OTHER
0	0.0	H-SCHOOL BUS	0	0.0	M-OTHER UNSAFE TURN	0	0.0	G-STOP & GO TRAFFIC
2	14.3	I-OTHER BUS	0	0.0	N-CROSS INTO OPP LN	0	0.0	H-ENTER/LEAVE RAMP
1	7.1	J-EMERGENCY VEHICLE	0	0.0	O-PARKED	0	0.0	I-PREVIOUS COLLISION
0	0.0	K-HIGHWAY CONST EQUIP.**	0	0.0	P-MERGING	0	0.0	J-UNFAMILIAR WITH ROAD
0	0.0	L-BICYCLE	0	0.0	Q-TRAVEL WRONG WAY	0	0.0	K-DEFECT VEHICLE EQUIP
0	0.0	M-OTHER-MOTOR VEH	0	0.0	R-OTHER	0	0.0	L-UNINVOLVED VEHICLE
0	0.0	N-OTHER-NON-MOTOR VEH	1	7.1	<-NOT STATED	0	0.0	M-OTHER
0	0.0	O-SPILLED LOADS				12	85.7	N-NONE APPARENT
0	0.0	P-DISENGAGED TOW				0	0.0	O-P-WIND
0	0.0	Q-UNINVOLVED VEHICLE				0	0.0	R-RAMP ACCIDENT
0	0.0	R-MOPED				0	0.0	S-RUNAWAY VEHICLE
0	0.0	T-TRAIN				0	0.0	T-EATING* (INATTN)
0	0.0	U-PEDESTRIAN				0	0.0	U-CHILDREN* (INATTN)
0	0.0	V-DISMOUNT PEDESTRIAN				0	0.0	V-ANIMALS* (INATTN)
0	0.0	W-ANIMAL - LIVESTOCK				0	0.0	W-PERSNL HYGIENE* (INATTN)
0	0.0	X-ANIMAL - DEER				0	0.0	X-READING* (INATTN)
0	0.0	Z-ANIMAL - OTHER				1	7.1	<-NOT STATED
						0	0.0	100.0 <-NOT STATED
						0	0.0	<-DOES NOT APPLY

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

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

* INATTENTION CODES EFF. 01-01-01

NUMBER	PCT	CODE	NUMBER	PCT	CODE
12	85.7	N-N, NE, NW BOUND	0	0.0	A-HAZARDOUS MATERIALS
1	7.1	S-S, SE, SW BOUND	2	14.3	B-CELL PHONE-IN USE*
2	14.3	E-EASTBOUND	13	92.9	C-CELL PHONE NOT IN USE*
1	7.1	W-WESTBOUND	0	0.0	D-CELL PHONE NONE/UNKNOWN*
1	7.1	<-NOT STATED	2	14.3	<-NOT STATED
0	0.0	--DOES NOT APPLY	0	0.0	--DOES NOT APPLY
0	0.0	-INVALID CODES	0	0.0	-INVALID CODES

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

* SPECIAL INFORMATION CODES EFF. 04-01-01

ALL RAMP ACCIDENTS ON LA-110, PM 20-478, FOR TIME PERIOD 4/1/05 THRU 3/31/08, DON TANG, LOG #149

OBJECT STRUCK				LOCATION OF COLLISION			
PRIMARY NUMBER	PCT	OTHERS NUMBER	CODE	PRIMARY NUMBER	PCT	OTHERS NUMBER	CODE
0	0.0	0	01-SIDE OF BRIDGE RAILING	0	0.0	0	A-BEYOND MEDIAN OR STRIPE-LEFT
0	0.0	0	02-END OF BRIDGE RAILING	0	0.0	0	B-BEYOND SHLDER DRIVERS LEFT
0	0.0	0	03-PIER, COLUMN, ABUTMENT	0	0.0	0	C-LEFT SHOULDER AREA
0	0.0	0	04-BOTTOM OF STRUCTURE	3	21.4	0	D-LEFT LANE
0	0.0	0	05-BRIDGE END POST IN GORE	0	0.0	0	E-INTERIOR LANES
0	0.0	0	06-END OF GUARD RAIL	9	64.3	2	F-RIGHT LANE
0	0.0	0	07-BRIDGE APPROACH GUARD RAIL	0	0.0	0	G-RIGHT SHOULDER AREA
0	0.0	0	10-LIGHT OR SIGNAL POLE	0	0.0	0	H-BEYOND SHLDER DRIVERS RIGHT
0	0.0	0	11-UTILITY POLE	0	0.0	0	I-GORE AREA
0	0.0	0	12-POLE (TYPE NOT STATED)	1	7.1	0	J-OTHER
0	0.0	0	13-TRAFFIC SIGN/SIGN POST	3	21.4	2	V-HOV LANE(S)
0	0.0	0	14-OTHER SIGNS NOT TRAFFIC	0	0.0	0	W-HOV LANE BUFFER AREA
1	7.1	0	15-GUARDRAIL	0	0.0	0	<-NOT STATED
0	0.0	0	16-MEDIAN BARRIER	4	28.6	14	--DOES NOT APPLY
0	0.0	0	17-WALL (EXCEPT SOUND WALL)	0	0.0	0	-INVALID CODES
0	0.0	0	18-DIKE OR CURB				
0	0.0	0	19-TRAFFIC ISLAND				
0	0.0	0	20-RAISED BARS				
0	0.0	0	21-CONCRETE OBJ (HDWL, D.I.)				
0	0.0	0	22-GUIDEPOST, CULVERT, PM				
0	0.0	0	23-CUT SLOPE OR EMBANKMENT				
0	0.0	0	24-OVER EMBANKMENT				
0	0.0	0	25-IN WATER				
0	0.0	0	26-DRAINAGE DITCH				
0	0.0	0	27-FENCE				
0	0.0	0	28-TREES				
0	0.0	0	29-PLANTS	12	85.7	0	A-HAD NOT BEEN DRINKING
0	0.0	0	30-SOUND WALL	0	0.0	0	B-HED - UNDER INFLUENCE
0	0.0	0	40-NATURAL MATRL ON ROAD	2	14.3	0	C-HED - NOT UNDER INFLUENCE
0	0.0	0	41-TEMP BARRICADES, CONES	0	0.0	0	D-HED - IMPAIRMENT UNKNOWN
0	0.0	0	42-OTHER OBJECT ON ROAD	0	0.0	0	E-UNDER DRUG INFLUENCE
0	0.0	0	43-OTHER OBJECT OFF ROAD	0	0.0	0	F-OTHER PHYSICAL IMPAIRMENT
1	7.1	0	44-OVERTURNED	1	7.1	0	G-IMPACTMENT NOT KNOWN
0	0.0	0	45-CRASH CUSHION (SAND)	0	0.0	0	H-NOT APPLICABLE
0	0.0	0	46-CRASH CUSHION (OTHER)	0	0.0	0	I-FATIGUE
0	0.0	0	51-CALL BOX	0	0.0	0	< NOT STATED
0	0.0	0	98-UNKNOWN OBJECT STRUCK	0	0.0	0	--DOES NOT APPLY
0	0.0	0	99- NO OBJECT INVOLVED	0	0.0	0	-INVALID CODES
12	85.7	4	V1 THRU V9 VEHICLE 1 TO 9	14	100.0	14	
0	0.0	0	<< NOT STATED				
4	28.6	14	-- DOES NOT APPLY				
0	0.0	0	- INVALID CODES				

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

ATTACHMENT O
STORM WATER DOCUMENTATION

Long Form - Storm Water Data Report



Dist-County-Route: 07-LA-110
 Post Mile Limits: 20.10/20.92 (32.34/33.67)
 Project Type: A Direct HOV off-ramp connector
 Project ID (or EA): 27800K
 Program Identification: HB5
 Phase: PID (PSR/PDS)
 PA/ED
 PS&E

Regional Water Quality Control Board(s): Los Angeles, Region 4

Is the Project required to consider Treatment BMPs? Yes No
 If yes, can Treatment BMPs be incorporated into the project? Yes No
 If No, a Technical Data Report must be submitted to the RWQCB
 at least 30 days prior to the projects RTL date. List RTL Date: _____

Total Disturbed Soil Area: 3.72 acres Risk Level: 2
 Estimated: Construction Start Date: 6/2017 Construction Completion Date: 06/2019
 Notification of Construction (NOC) Date to be submitted: 7/2017

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

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

[Signature] 6/8/12
 I-Chung Chu, Registered Project Engineer/Landscape Architect Date

I have reviewed the stormwater quality design issues and find this report to be complete, current and accurate:
[Signature] 6/11/12
 Mirna Dagher, Project Manager Date

[Signature] 06-11-12
 Roger Castillo, Designated Maintenance Representative Date

[Signature] 06-11-12
 Ron Russak, Designated Landscape Architect Representative Date

STAMP
 (Stamp Required for PS&E only) [Signature] 6/11/2012
 Shirley Pak, District/Regional Design SW Coordinator or Designee Date

Preliminary Project Cost Estimate (PPCE)

Dist-County-Route: 07-LA-I 110

Post Mile Limits: 20.10/20.92

Project Type: Direct HOV off ramp @Adams Blvd

EA: 27800K

RU: 07-186

Program Identification: HB4N

Phase: PID

Date: 5/21/2012

1) Treatment BMPS

Per The Route 110 Corridor Storm Water Management Study, dated October 2009
No proposed Treatment BMPs

2) Construction Site BMPS

Interchange improvement
Use LS - 1% of Project Cost

Project Cost	Percent	Cost
\$130,000,000	1%	\$1,300,000

Subtotal: \$1,300,000

3) Design pollution Prevention BMPS

N/A
Use LS. 1 % for DPP BMPS.

Project Cost	Percent	Cost
\$130,000,000	1%	\$1,300,000

Subtotal: \$1,300,000

Total: \$2,600,000

ATTACHMENT P

RISK REGISTER

ATTACHMENT P

RISK REGISTER



Risk Register

RiskID	RiskID Alt	Primary Consequence	Overall Rate	Risk Description	Thr/ Prob Opp	Probability (1)	Impact (1)	Impact Description	Risk Response	Mitigation Strategy
22397			VL (1)	Project scope, schedule, objectives, cost, and deliverables are not clearly defined or understood	Thr	(1)	(1)			
22398			VL (1)	No control over staff priorities	Thr	(1)	(1)			
22399			VL (1)	Consultant or contractor delays	Thr	(1)	(1)			
22400			VL (1)	Estimating and/or scheduling errors	Thr	(1)	(1)			
22401			VL (1)	Unplanned work that must be accommodated	Thr	(1)	(1)			
22402			VL (1)	Lack of coordination/communication	Thr	(1)	(1)			
22403			VL (1)	Underestimated support resources or overly optimistic delivery schedule	Thr	(1)	(1)			
22404			VL (1)	Scope creep	Thr	(1)	(1)			
22405			VL (1)	Unresolved project conflicts not escalated in a timely manner	Thr	(1)	(1)			
22406			VL (1)	Unanticipated escalation in right of way values or construction cost	Thr	(1)	(1)			
22407			VL (1)	Delay in earlier project phases jeopardizes ability to meet programmed delivery commitment	Thr	(1)	(1)			
22408			VL (1)	Added workload or time requirements because of new direction, policy, or statute	Thr	(1)	(1)			
22409			VL (1)	Local agency support not attained	Thr	(1)	(1)			
22410			VL (1)	Public awareness/campaign not planned	Thr	(1)	(1)			
22411			VL (1)	Unforeseen agreements required	Thr	(1)	(1)			
22412			VL (1)	Priorities change on existing program	Thr	(1)	(1)			
22413			VL (1)	Inconsistent cost, time, scope, and quality objectives	Thr	(1)	(1)			
22414			VL (1)	Change in key staffing	Thr	(1)	(1)			
22416			VL (1)	Pressure to deliver project on an accelerated schedule	Thr	(1)	(1)			
22417			VL (1)	Public Awareness/Support	Thr	(1)	(1)			
22441			VL (1)	Environmental analysis incomplete	Thr	(1)	(1)			
22442			VL (1)	Inaccurate contract time estimates	Thr	(1)	(1)			

				(1)	(1)
22458	VL (1)	Availability of project data and mapping at the beginning of the environmental study is insufficient	Thr	 (1)	 (1)
22459	VL (1)	New information after Environmental Document is completed may require re-evaluation or a new document (i.e. utility relocation beyond document coverage)	Thr	 (1)	 (1)
22460	VL (1)	New alternatives required to avoid, mitigate or minimize impact	Thr	 (1)	 (1)
22461	VL (1)	Acquisition, creation or restoration of on or off-site mitigation	Thr	 (1)	 (1)
22462	VL (1)	Environmental clearance for staging or borrow sites required	Thr	 (1)	 (1)
22463	VL (1)	Historic site, endangered species, riparian areas, wetlands and/or public park present	Thr	 (1)	 (1)
22464	VL (1)	Design changes require additional Environmental analysis	Thr	 (1)	 (1)
22465	VL (1)	Unforeseen formal NEPA/404 consultation is required	Thr	 (1)	 (1)
22466	VL (1)	Unforeseen formal Section 7 consultation is required	Thr	 (1)	 (1)
22467	VL (1)	Unexpected Section 106 issues expected	Thr	 (1)	 (1)
22468	VL (1)	Unexpected Native American concerns	Thr	 (1)	 (1)
22469	VL (1)	Unforeseen Section 4(f) resources affected	Thr	 (1)	 (1)
22470	VL (1)	Project may encroach into the Coastal Zone	Thr	 (1)	 (1)
22471	VL (1)	Project may encroach onto a Scenic Highway	Thr	 (1)	 (1)
22472	VL (1)	Project may encroach to a Wild and Scenic River	Thr	 (1)	 (1)
22473	VL (1)	Unanticipated noise impacts	Thr	 (1)	 (1)
22474	VL (1)	Project causes an unanticipated barrier to wildlife	Thr	 (1)	 (1)
22475	VL (1)	Project may encroach into a floodplain or a regulatory floodway	Thr	 (1)	 (1)
22476	VL (1)	Project does not conform to the state implementation plan for air quality at the program and plan level	Thr	 (1)	 (1)
22477	VL (1)	Unanticipated cumulative impact issues	Thr	 (1)	 (1)
22478	VL (1)	Asbestos Pipes	Thr	 (1)	 (1)
22479	VL (1)	Growth Inducement Sprawl Issues	Thr	 (1)	 (1)

22480	VL (1)	Unanticipated Hazardous Waste Materials or contaminated soils	Thr		
22481	VL (1)	Water Quality Issues	Thr		
22483	VL (1)	Utility relocation requires more time than planned	Thr		
22484	VL (1)	Unforeseen railroad involvement	Thr		
22485	VL (1)	Resolving objections to Right of Way appraisal takes more time and/or money	Thr		
22486	VL (1)	Right of Way datasheet incomplete or underestimated	Thr		
22487	VL (1)	Need for "Permits to Enter" not considered in project schedule development	Thr		
22488	VL (1)	Acquisition of parcels controlled by a State or Federal Agency may take longer than anticipated	Thr		
22489	VL (1)	Discovery of hazardous waste in the right of way phase	Thr		
22490	VL (1)	Seasonal requirements during utility relocation	Thr		
22491	VL (1)	Utility company workload, financial condition or timeline	Thr		
22492	VL (1)	Expired temporary construction easements	Thr		
22493	VL (1)	Inadequate pool of expert witnesses or qualified appraisers	Thr		
22494	VL (1)	Additional ROW may need to be acquired	Thr		
22495	VL (1)	Design changes result in additional utility relocations	Thr		
22496	VL (1)	Failure to obtain necessary utility agreements or acquisitions on time	Thr		
22497	VL (1)	Less ROW than anticipated	Thr		
22498	VL (1)	ROW unable to certify project before Advertising	Thr		
22499	VL (1)	Design incomplete	Thr		
22500	VL (1)	Unexpected geotechnical or groundwater issues	Thr		
22501	VL (1)	Inaccurate assumptions on technical issues in planning stage	Thr		
22502	VL (1)	Surveys incomplete	Thr		
22503	VL (1)	Changes to materials/geotechnical/foundation	Thr		

22504	VL (1)	Bridge site data incomplete to DES	Thr		
22505	VL (1)	Hazardous waste site analysis incomplete	Thr		
22506	VL (1)	Unforeseen design exceptions required	Thr		
22507	VL (1)	Unresolved constructability items	Thr		
22508	VL (1)	Complex hydraulic features	Thr		
22509	VL (1)	Unable to meet Americans with Disabilities Act requirements	Thr		
22510	VL (1)	Project in a critical water shortage area and a water source agreement required	Thr		
22511	VL (1)	Incomplete quantity estimates	Thr		
22512	VL (1)	Unforeseen construction window and/or rainy season requirements	Thr		
22513	VL (1)	New or revised design standard	Thr		
22514	VL (1)	Construction staging more complex than anticipated	Thr		
22515	VL (1)	Changes in final alignment geometry	Thr		
22516	VL (1)	Design Changes impact Const cost and schedule	Thr		
22517	VL (1)	Design Review delays project schedule	Thr		
22518	VL (1)	Local communities pose objections	Thr		
22519	VL (1)	Unreasonably high expectations from stakeholders	Thr		
22520	VL (1)	Political factors or support for project changes	Thr		
22521	VL (1)	Stakeholders request late changes	Thr		
22522	VL (1)	New stakeholders emerge and request changes	Thr		
22523	VL (1)	Threat of lawsuits	Thr		
22524	VL (1)	Increase in material cost due to market forces	Thr		
22525	VL (1)	Water quality regulations change	Thr		
22526	VL (1)	New permits or additional information required	Thr		
22527	VL (1)	Reviewing agency requires longer than expected review time	Thr		

22528	VL (1)	Changes to storm-water requirements	Thr	● (1)	● (1)
22529	VL (1)	Permits or agency actions delayed or take longer than expected	Thr	● (1)	● (1)
22530	VL (1)	New information required for permits	Thr	● (1)	● (1)
22531	VL (1)	Environmental regulations change	Thr	● (1)	● (1)
22532	VL (1)	Controversy on environmental grounds expected	Thr	● (1)	● (1)
22533	VL (1)	Pressure to deliver project on an accelerated schedule	Thr	● (1)	● (1)
22534	VL (1)	Labor shortage or strike	Thr	● (1)	● (1)
22535	VL (1)	Construction or pile driving noise and vibration impacting adjacent businesses or residents	Thr	● (1)	● (1)
22536	VL (1)	Force Majeure	Thr	● (1)	● (1)
22537	VL (1)	Priorities change on existing program	Thr	● (1)	● (1)
22538	VL (1)	Weather related Interruptions to Const	Thr	● (1)	● (1)
22539	VL (1)	Losing critical staff at crucial point of the project	Thr	● (1)	● (1)
22540	VL (1)	Insufficient time to plan	Thr	● (1)	● (1)
22541	VL (1)	Unanticipated project manager workload	Thr	● (1)	● (1)
22542	VL (1)	Internal "red tape" causes delay getting approvals, decisions	Thr	● (1)	● (1)
22543	VL (1)	Functional units not available, overloaded	Thr	● (1)	● (1)
22544	VL (1)	Lack of understanding of complex internal funding procedures	Thr	● (1)	● (1)
22545	VL (1)	Priorities change on existing program	Thr	● (1)	● (1)
22546	VL (1)	Inconsistent cost, time, scope and quality objectives	Thr	● (1)	● (1)
22547	VL (1)	Overlapping of one or more project limits, scope of work or schedule	Thr	● (1)	● (1)
22548	VL (1)	Funding changes for fiscal year	Thr	● (1)	● (1)
22549	VL (1)	Capital funding unavailable for right of way or construction	Thr	● (1)	● (1)
22550	VL (1)	Foundations utilizing Cast-In-Drilled-Hole or Cast-In-Steel-Shell pile 30" in diameter or greater may require tunneling and mining provisions within the contract	Thr	● (1)	● (1)

		documents and early notification of Cal-OSHA				
22551	VL (1)	Bridges constructed at grade and then excavated underneath may require tunneling and mining provisions within the contract documents and early notification of Cal-OSHA	Thr			(1) (1)
22552	VL (1)	Hazardous materials in existing structure or surrounding soil; lead paint, contaminated soil, asbestos pipe, asbestos bearings and shims	Thr			(1) (1)
22553	VL (1)	Special railroad requirements are necessary including an extensive geotechnical report for temporary shoring system adjacent to tracks	Thr			(1) (1)
22554	VL (1)	Access to adjacent properties is necessary to resolve constructability requirements	Thr			(1) (1)
22555	VL (1)	Existing structures planned for modification not evaluated for seismic retrofit, scour potential and structural capacity	Thr			(1) (1)
22556	VL (1)	Foundation and geotechnical tasks (foundation drilling and material testing) not identified and included in project workplan	Thr			(1) (1)
22557	VL (1)	Bridge is a habitat to bats or other species requiring mitigation or seasonal construction	Thr			(1) (1)
22558	VL (1)	Condition of the bridge deck unknown	Thr			(1) (1)
22559	VL (1)	For projects involving bridge removal, bridge carries traffic during staging	Thr			(1) (1)
22560	VL (1)	Verify that all seasonal constraints and permitting requirements are identified and incorporated in the project schedule	Thr			(1) (1)
22561	VL (1)	Complex structures hydraulic design requiring investigation and planning	Thr			(1) (1)
22562	VL (1)	Assumptions upon which the Advance Planning Study is based on are realistic and verification of these assumptions prior to completion of the Project Report	Thr			(1) (1)
22563	VL (1)	Design changes to alignment, profile, typical cross section, stage construction between Advance Planning Study and the Bridge Site Submittal	Thr			(1) (1)
22564	VL (1)	Unexpected environmental constraints that impact bridge construction	Thr			(1) (1)
22565	VL (1)	Unforeseen aesthetic requirements	Thr			(1) (1)
22566	VL (1)	Delay due to permits or agreements, from Federal, State, or local agencies for geotechnical subsurface exploration	Thr			(1) (1)
22567	VL (1)	Delay due to Right-of-Entry agreements for geotechnical subsurface exploration	Thr			(1) (1)
22568	VL (1)	Delay due to traffic management and lane closure for geotechnical subsurface exploration	Thr			(1) (1)