

# Memorandum

*Making Conservation  
a California Way of Life*

To: TOKS OMISHAKIN  
DIRECTOR

Date: April 24, 2020  
File: SAC 5 Auxiliary Lane

From: AMARJEET S. BENIPAL  
District 3 Director

*Suew Elkins  
FOR*

Subject: **BASELINE AGREEMENT ENDORSMENT**

District 3 in coordination with Sacramento County and Sacramento Area Council of Governments endorses the construction of the northbound auxiliary lane from Interstate 5 / State Route 99 ramp connector to Metro Air Parkway Interchange in Sacramento County.

Programming of the project using local and Trade Corridor Improvement Funds is on the March 25/26, 2020 California Transportation Commission's (CTC) consent agenda. The attached baseline agreement requires your signature. Please consider signing the agreement to advance its approval for the June CTC vote. Fund allocation is also scheduled for the June CTC vote.

## Attachments

1. Baseline Agreement
2. Project Programing Request
3. Supplemental Project Report
4. Project Benefits Form

**TRADE CORRIDOR IMPROVEMENT FUND  
PROJECT BASELINE AGREEMENT**

**1. PARTIES AND DATE**

- 1.1 This Project Baseline Agreement (Agreement) for the Interstate 5 (I-5) Northbound Auxiliary Lane Project from I-5 to SR 99 Ramp Connector to Metro Air Parkway Interchange in Sacramento County effective on \_\_\_\_\_, is made by and between the California Transportation Commission (Commission), the California Department of Transportation (Caltrans), and County of Sacramento (Project Sponsor), sometimes collectively referred to as the "Parties".

**2. RECITAL**

- 2.1 Whereas at the March 25, 2020 meeting the Commission programmed the Trade Corridor Improvement Fund and included in this program of projects the Interstate 5 (I-5) Northbound Auxiliary Lane Project from I-5 to SR 99 Ramp Connector to Metro Air Parkway Interchange in Sacramento County the parties are entering into this Project Baseline Agreement to document the project cost, schedule, scope and benefits, as detailed on the Project Programming Request Form attached hereto as Exhibit A, the Project Report attached hereto as Exhibit B, and the Project Benefits Form as attached hereto as Exhibit C, as the baseline for project monitoring by the Commission and its Project Delivery Council. The undersigned Project Sponsor certifies that the funding sources cited are committed and expected to be available; the estimated costs represent full project funding; and the scope and description of benefits is the best estimate possible.

**3. GENERAL PROVISIONS**

The Project Sponsor and Caltrans agree to abide by the following provisions:

- 3.1 To meet the requirements of Government Code Section 8879.23(c)(1), as added by Proposition 1B, and to Government Code Section 8879.50, as enacted through implementing legislation in 2007 (Senate Bill 88 and Assembly Bill 193).
- 3.2 To adhere to the provisions of the Commission Resolution TCIF-P-0708-01, "Adoption of Program of Projects for the Trade Corridors Improvement Fund (TCIF)," dated April 10, 2008.
- 3.3 To adhere to the Commission's Trade Corridor Improvement Fund Guidelines.
- 3.4 To adhere to the Commission's Accountability Implementation Plan and policies, and program and baseline amendment processes.
- 3.5 The Sponsoring Agency agrees to secure funds for any additional costs of the project. Any change to the funding commitments outlined in this agreement requires an amendment.

- 3.6 To report to the Commission on a quarterly basis on the progress made toward the implementation of the project, including scope, cost, and schedule.
- 3.7 To report to the Commission on the progress, on a quarterly basis, and outcomes, at the end of the environmental phase, of the environmental process with regard to air quality impacts due to emissions from diesel or other particulates and related mitigation strategies. Whereas the Bond Act mandates that the Commission shall allocate TCIF for trade infrastructure improvements in a manner that places emphasis on projects that improve trade corridor mobility while reducing emissions of diesel particulate and other pollutant emissions, the Caltrans, the Sponsoring Agency, and the Corridor Coalition understand and agree that the Commission will only allocate TCIF to projects that can demonstrate compliance with applicable environmental requirements. If environmental clearance is conditioned to the implementation of mitigation measures, the sponsoring agency must commit, in writing, to the implementation of those mitigation measures.
- 3.8 To maintain and make available to the Commission and/or its designated representative, all work related documents, including engineering and financial data, during the course of the project and retain those records for four years from the date of the final closeout of the project. Financial records will be maintained in accordance with Generally Accepted Accounting Principles.
- 3.9 The Commission and/or its designated representative, has the right to audit the project records, including technical and financial data, of Caltrans, the Sponsoring Agency, and any subconsultants at any time during the course of the project and for four years from the date of the final closeout of the project. Audits will be conducted in accordance with Generally Accepted Government Auditing Standards.

#### 4. **SPECIFIC PROVISIONS AND CONDITIONS**

- 4.1 **Project Schedule and Cost**  
See Project Programming Request Form, attached as Exhibit A.
- 4.2 **Project Scope**  
See Project Report, attached as Exhibit B.
- 4.3 **Project Benefits**  
See Project Benefits Form, attached as Exhibit C.
- 4.4 **Other Project Specific Provisions and Conditions**



# EXHIBIT A

## PROJECT PROGRAMMING REQUEST

DTP-0001 (Revised 13 Aug 2019 v8.01g)

General Instructions

Amendment (Existing Project) Y/N					Date:	2/7/20
District	EA	Project ID		PPNO	MPO ID	
03	1J130	0320000096				
County	Route/Corridor	PM Bk	PM Ahd	Nominating Agency		
SAC	5	30.22	31.2	Sacramento County		
				MPO	Element	
				SACOG	Capital Outlay	
Project Manager/Contact		Phone		E-mail Address		
John Holder		(530) 741-5448		<a href="mailto:john.holder@dot.ca.gov">john.holder@dot.ca.gov</a>		
<b>Project Title</b>						
Metro Air Parkway Northbound Auxillary Lane						
<b>Location (Project Limits), Description ( Scope of Work)</b>						
On SAC 5 from 5/99 interchange to Metro Air Parkway interchange						
<b>Component</b>						
		<b>Implementing Agency</b>				
PA&ED	Sacramento County					
PS&E	Sacramento County					
Right of Way	Sacramento County					
Construction	Sacramento County					
<b>Legislative Districts</b>						
Assembly:	7	Senate:	6	Congressional:	10	
<b>Project Benefits</b>						
The project will facilitate efficient movement of goods and services through the Sacramento Valley and relieve congestion along the northbound interstate 5 corridor. The largest share of benefits come from travel time savings for both passenger and trucks followed by accident cost savings and reduction of in emissions for truck traffic. for an overall project cost of \$4.0 m, the project is expected to generate \$10.3 m in benefits with a net present value of \$6.2 m. Expected B/C ratio is 2.6.						
<b>Purpose and Need</b>						
the purpose of the project is to construct a northbound auxillary lane from the interstate 5/SR 99 interchange to the new Metro Air Parkway interchange. The need for the project is to address inefficient movement of goods and services, and to relieve traffic congestion.						
<b>Category</b>		<b>Outputs</b>			<b>Unit</b>	<b>Total</b>
Operational Improvements		Auxiliary lanes			Miles	0.98
NHS Improvements	Yes	Roadway Class	1	Reversible Lane analysis	No	
Inc. Sustainable Communities Strategy Goals		Yes	Reduces Greenhouse Gas Emissions		Yes	
<b>Project Milestone</b>					<b>Existing</b>	<b>Proposed</b>
Project Study Report Approved					07/12/99	
Begin Environmental (PA&ED) Phase						
Circulate Draft Environmental Document			Document Type	CE		
Draft Project Report						
End Environmental Phase (PA&ED Milestone)						03/30/20
Begin Design (PS&E) Phase						03/30/20
End Design Phase (Ready to List for Advertisement Milestone)						05/01/20
Begin Right of Way Phase						03/30/20
End Right of Way Phase (Right of Way Certification Milestone)						05/01/20
Begin Construction Phase (Contract Award Milestone)						12/15/20
End Construction Phase (Construction Contract Acceptance Milestone)						12/15/21
Begin Closeout Phase						12/15/21
End Closeout Phase (Closeout Report)						12/15/22

## ADA Notice

For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento,

**PROJECT PROGRAMMING REQUEST**

DTP-0001 (Revised 13 Aug 2019 v8.01g)

Date: 2/7/20

District	County	Route	EA	Project ID	PPNO
03	SAC	5	1J130	0320000096	
<b>Project Title:</b> Metro Air Parkway Northbound Auxillary Lane					

Existing Total Project Cost (\$1,000s)									Implementing Agency
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	
E&P (PA&ED)									Sacramento County
PS&E									Sacramento County
R/W SUP (CT)									Sacramento County
CON SUP (CT)									Sacramento County
R/W									Sacramento County
CON									Sacramento County
<b>TOTAL</b>									
Proposed Total Project Cost (\$1,000s)									Notes
E&P (PA&ED)									
PS&E		700						700	
R/W SUP (CT)									
CON SUP (CT)		300						300	
R/W									
CON		3,000						3,000	
<b>TOTAL</b>		<b>4,000</b>						<b>4,000</b>	

Fund No. 1:	Local	Existing Funding (\$1,000s)							Program Code
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									Sacramento County
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
<b>TOTAL</b>									
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E		700						700	
R/W SUP (CT)									
CON SUP (CT)		300						300	
R/W									
CON		1,060						1,060	
<b>TOTAL</b>		<b>2,060</b>						<b>2,060</b>	

Fund No. 2:	TCIF	Existing Funding (\$1,000s)							Program Code
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									Caltrans
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
<b>TOTAL</b>									
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		1,940						1,940	
<b>TOTAL</b>		<b>1,940</b>						<b>1,940</b>	

**PROJECT PROGRAMMING REQUEST**

DTP-0001 (Revised 13 Aug 2019 v8.01g)

**Complete this page for amendments only**

Date: 2/7/20

District	County	Route	EA	Project ID	PPNO
03	SAC	5	1J130	0320000096	

**SECTION 1 - All Projects**

**Project Background**

**Programming Change Requested**

**Reason for Proposed Change**

**If proposed change will delay one or more components, clearly explain 1) reason the delay, 2) cost increase related to the delay, and 3) how cost increase will be funded**

**Other Significant Information**


**SECTION 2 - For SB1 Projects Only**

Project Amendment Request (Please follow the individual SB1 program guidelines for specific criteria)

**SECTION 3 - All Projects**

**Approvals**

I hereby certify that the above information is complete and accurate and all approvals have been obtained for the processing of this amendment request.\*

Name (Print or Type)	Signature	Title	Date
John Holder		Project Manager	2/7/2020

**Attachments**

- 1) Concurrence from Implementing Agency and/or Regional Transportation Planning Agency
- 2) Project Location Map



# EXHIBIT B

## Supplemental Project Report

On Route Interstate 5  
Between Post Mile 30.22  
And Post Mile 31.2

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

  
\_\_\_\_\_  
John Ballantyne, *CHIEF NORTH REGION RIGHT OF WAY*

APPROVAL RECOMMENDED:

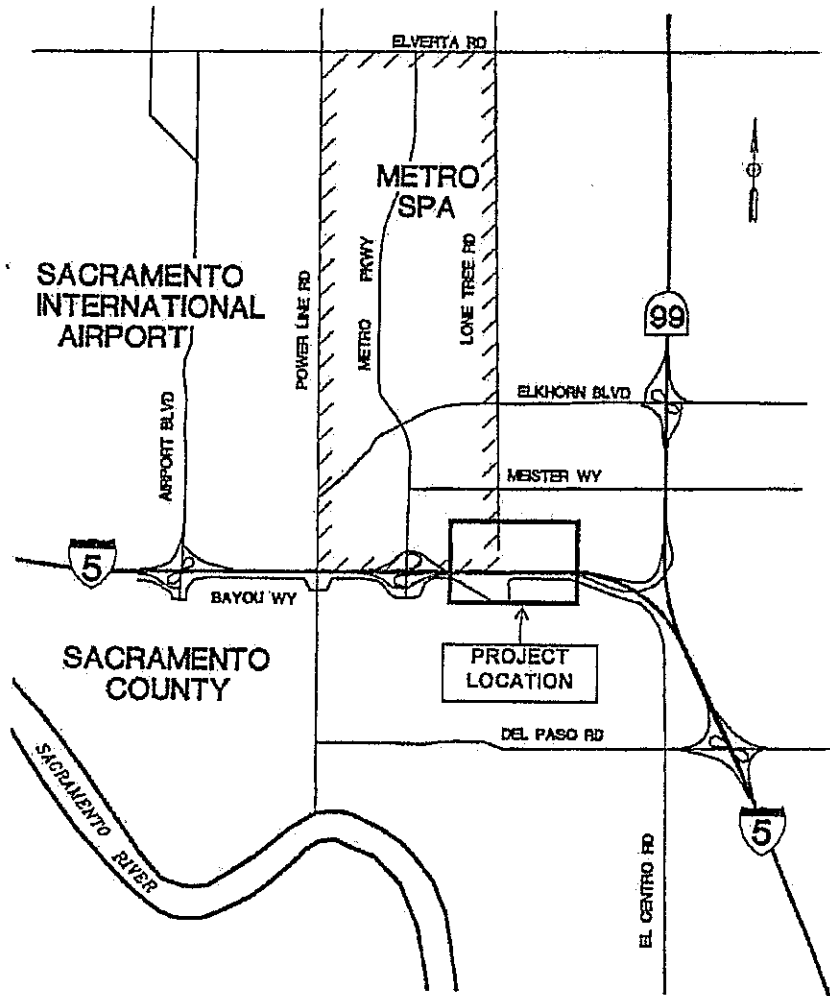
  
\_\_\_\_\_  
John Holder, *PROJECT MANAGER*

APPROVED:

  
\_\_\_\_\_  
Amarjeet S. Benipal, *DISTRICT DIRECTOR*

3-30-2020  
DATE

### Vicinity Map



This project report has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the data upon which recommendations, conclusions, and decisions are based.

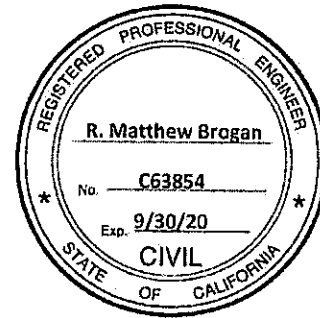
*R. M. Brogan*

March 20, 2020

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LICENSED CIVIL ENGINEER

DATE



## 1. INTRODUCTION

Sacramento County (County) is the project proponent and lead agency for California Environmental Quality Act (CEQA) approval for the Metro Air Parkway and Interstate 5 (I-5) Interchange Project. An Environmental Impact Report (EIR) was adopted by the Sacramento County Board of Supervisors in September of 2008 (See Attachment G). Caltrans is the Lead Agency for the National Environmental Protection Act (NEPA) and a Categorical Exclusion was approved on June 2, 2010 (See Attachment H). A Project Report was approved on December 20, 2010 (See Attachment I) and a Supplemental Project Report was approved on April 11, 2018, to document project updates, bring proposed improvements to current design standards, and confirm the findings of the previously approved technical studies (See Attachment J). Concept Acceptance for the new connection to I-5 was approved by FHWA in March of 2000 (See Attachment F).

As documented in the original Project Report approved in 2010, the I-5/Metro Air Parkway Interchange project improvements are proposed to be constructed in phases. The Phase One Project improvements included within the approved 2010 Project Report and 2018 Supplemental Project Report remain largely unchanged and are to be completed in 2020. The Ultimate Project improvements that included continuous auxiliary lanes in the northbound and southbound directions of I-5 between State Route (SR) 99 and Metro Air Parkway were proposed to be constructed in the future, as needed and as construction funding became available. This Supplemental Project Report is being submitted to document the proposed construction of the northbound auxiliary lane from the I-5/SR99 Interchange to the Metro Air Parkway Interchange lane as a new phase (Phase 1A). The following studies have been completed and are included within this document:

- Traffic Analysis – weave analysis for the northbound auxiliary lane
- Geometric Approval Drawings – document the proposed northbound auxiliary lane improvements

<b>Project Limits</b>	<b>3-SAC-5 PM 29.5-32.7</b>	
	<b>Current Cost Estimate:</b>	<b>Escalated Cost Estimate:</b>
<b>Capital Outlay Support</b>	\$357,000	\$357,000
<b>Capital Outlay Construction</b>	\$3,160,000	\$3,160,000
<b>Capital Outlay Right-of-Way</b>	\$0	\$0
<b>Funding Source</b>	Local, State Trade Corridor Improvement Funds	
<b>Funding Year</b>	2020	
<b>Type of Facility</b>	Freeway	
<b>Number of Structures</b>	0	
<b>Environmental Determination</b>	CEQA - Environmental Impact Report	

**Regional Planning**

The project is in the Sacramento Area Council of Government's (SACOG's) 2035 cost constrained Metropolitan Transportation Plan (MTP) which was found to conform to FHWA and the Federal Transit Administration (FTA) requirements. The project is also in SACOG's cost-constrained 2017/20 Metropolitan Transportation Improvement Program (MTIP).

**C. Traffic**

A Traffic Operations Update Memorandum was prepared by Fehr and Peers to summarize the findings of a weaving analysis for the northbound auxiliary lane. The ultimate configuration for the interchange improvements proposes a two lane exit for the diagonal off-ramp from northbound I-5 to Metro Air Parkway while the Phase 1A proposed geometrics of the northbound auxiliary lane would be a single lane exit as an interim condition until the Ultimate Project improvements are completed.

For the weaving analysis, the Construction Year is 2020, the Interim Year is 2030, and the Design Year is 2040. As shown in the following tables, the project provides acceptable level of service (LOS) for the northbound weaving section between SR-99 and Metro Air Parkway. The Ultimate Project is anticipated between 2030 and 2040. The weaving operations in 2040 were previously studied in the Traffic Report and are restated below.

<b>Freeway Operations – Construction Year 2020</b>		
<b>Intersection</b>	<b>Peak Hour</b>	<b>Update</b>
		<b>LOS</b>
1. I-5 NB between SR-99 and Metro Air Parkway	AM	C <sup>1</sup>
	PM	C <sup>1</sup>
<sup>1</sup> The segment operates outside the realm of weaving for the given conditions, so the basic freeway analysis is reported. Source: Fehr & Peers, 2018.		

<b>Freeway Operations – Interim Year 2030</b>		
<b>Intersection</b>	<b>Peak Hour</b>	<b>Update</b>
		<b>LOS</b>
1. I-5 NB between SR-99 and Metro Air Parkway	AM	D
	PM	D
Source: Fehr & Peers, 2018.		

## SR 99 Connector to I-5/Metro Air Parkway Northbound Auxiliary Lane

Nonstandard Design Features			
		data shown in Figure 202.5A.	southbound loop entrance ramp ( $e_{max}=12\%$ ) and 200 feet ( $e_{max}=12\%$ ) and the northbound loop entrance ramp.  <b>Exception Approved in 2010</b>
Mandatory Design Exceptions			
<b>202.2</b>	Superelevation Rates	Superelevation rates from Table 202.2 shall be used within the given range of curve radii.  Superelevation Rate is 12% for Ramps with curve Radii under 625 feet	Proposed superelevation rate for the northbound exit ramp and southbound exit ramp is 4%.  <b>Exception Approved in 2010</b>
<b>501.3</b>	Interchange Spacing	Interchange spacing between local interchange and freeway interchange is 2 miles	Proposed spacing between I-5/Metro Air Parkway interchange and I-5/SR-99 junction is 1.5 miles.  <b>Exception Approved in 1999</b>

A Supplemental Fact Sheet for Exceptions to Caltrans Mandatory Design Standards was prepared and approved for the Phase One Project improvements in April 2018 per the table below.

Nonstandard Design Features			
Mandatory Design Exceptions			
<b>302.1</b>	Highway Shoulder Standards - Width	Right Paved Shoulder width on a Freeway is 10 feet	Proposed shoulder will taper to 7 feet minimum due to the existing slope paving at the Power Line Road overcrossing.  <b>Exception approved in 2018</b>

**6C. Air Quality Conformity/Green House Gas Emissions**

The project is less than one mile in length, improves safety, and is exempt from project level and regional conformity. This project is anticipated to reduce air quality impacts by improving merge/weave operations and reducing vehicle delay. Therefore, the project is not expected to interfere with the State Implementation Plans (SIPs) for achieving the National Ambient Air Quality Standards (NAAQS).

The project is located in a Carbon Monoxide (CO) and Particulate Matter (PM10) nonattainment or maintenance area. The project level control measures for CO, and PM10 are not identified as a condition of the RTP or TIP conformity determination. All air quality conformity requirements have been met.

**6D. Right-of-Way Issues****Right-of-Way Acquisitions**

No temporary or permanent right-of-way acquisition is needed to construct the auxiliary lane on northbound I-5.

**Utility Relocation**

No utility relocations are needed to construct the auxiliary lane on northbound I-5.

**7. DELIVERY SCHEDULE**

The following is an updated schedule for the project.

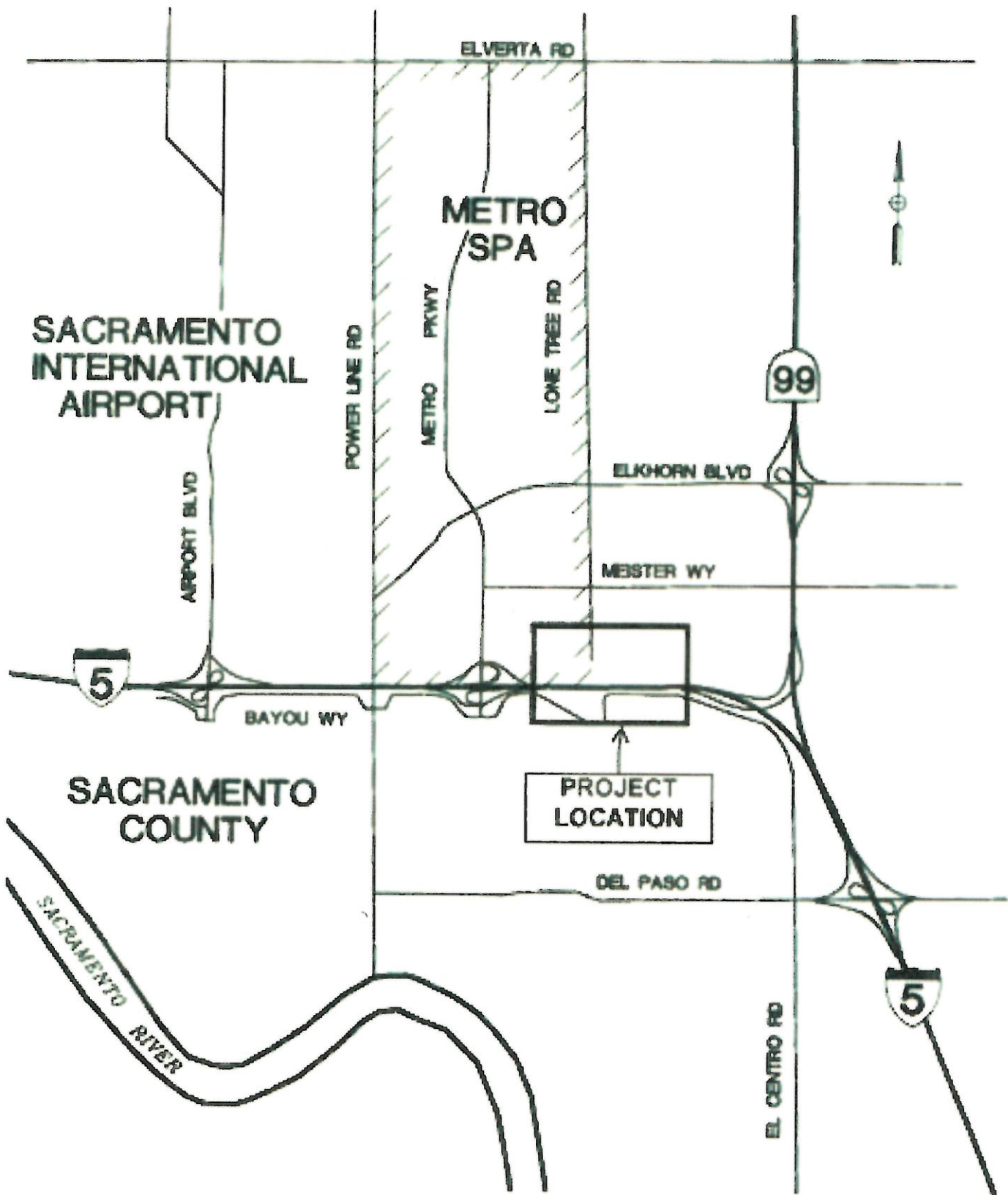
Project Milestones		Milestone Date
APPROVED PID	M010	7/16/1999(A)
BEGIN ENVIRONMENTAL	M020	4/2/2002(A)
CIRCULATE DED EXTERNALLY	M120	8/11/2006(A)
APPROVED FED	M160	6/2/2010(A)
PROJECT APPROVAL & ENVIRONMENTAL DOCUMENT (PA&ED)	M200	9/29/2008(A)
SUPPLEMENTAL PROJECT REPORT APPROVED	M200	March 2020
100% PLANS SUBMITTED	M314	April 2020
PROJECT PS&E	M380	May 2020
RIGHT OF WAY CERTIFICATION	M410	April 2020
READY TO LIST	M460	May 2020
AWARD	M495	November 2020
APPROVE CONTRACT	M500	January 2021
END PROJECT	M800	December 2021

(A) Actual



## 11. LIST OF ATTACHMENTS

- A. Location Map (1)
- B. Geometric Approval Drawings (1)
- C. Traffic Operation Memorandum (2)
- D. Right of Way Certification (5)
- E. Supplemental Design Standard Decision Document (1)
- F. FHWA Concept Acceptance Letter (1)
- G. Final Environmental Impact Report (1)
- H. Categorical Exclusion (1)
- I. Project Report (27)
- J. Supplemental Project Report (14)

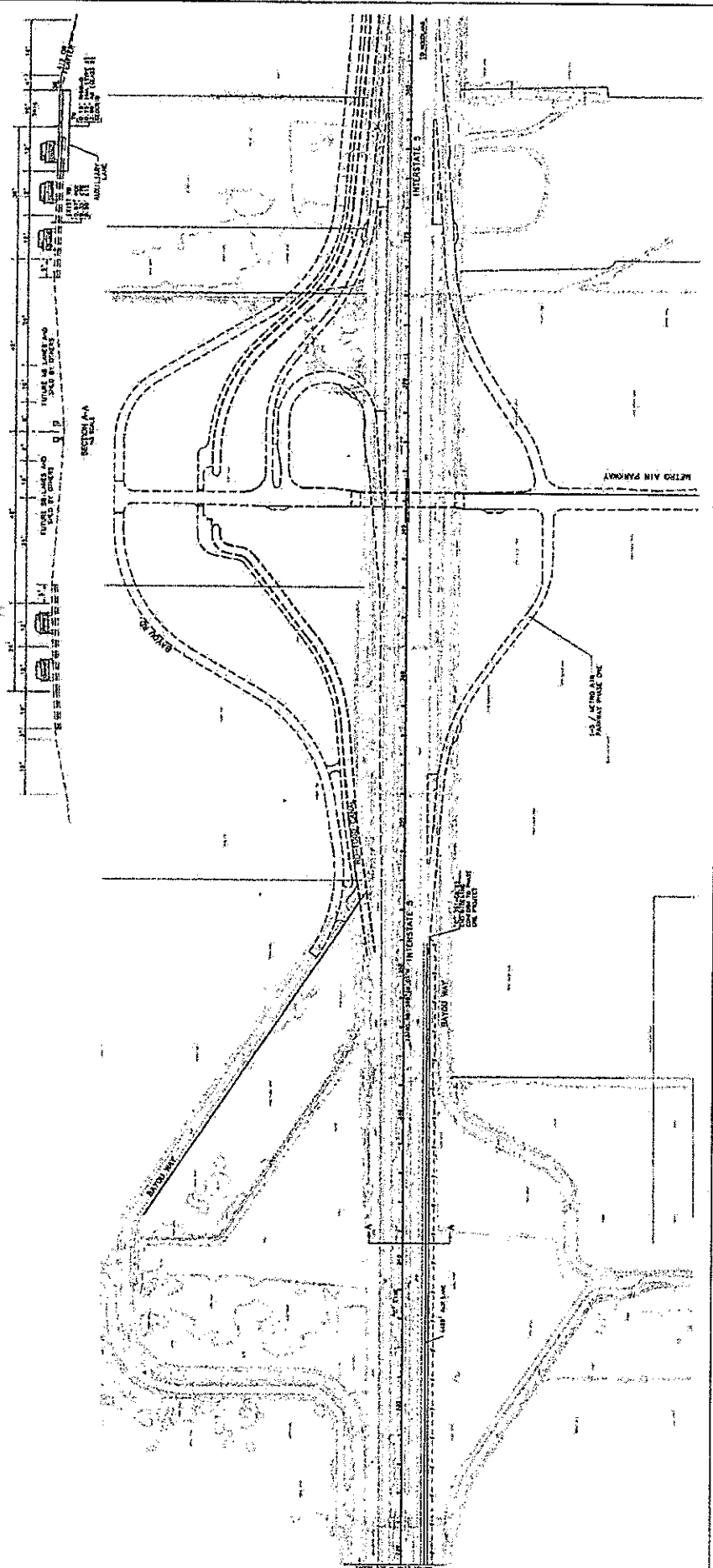
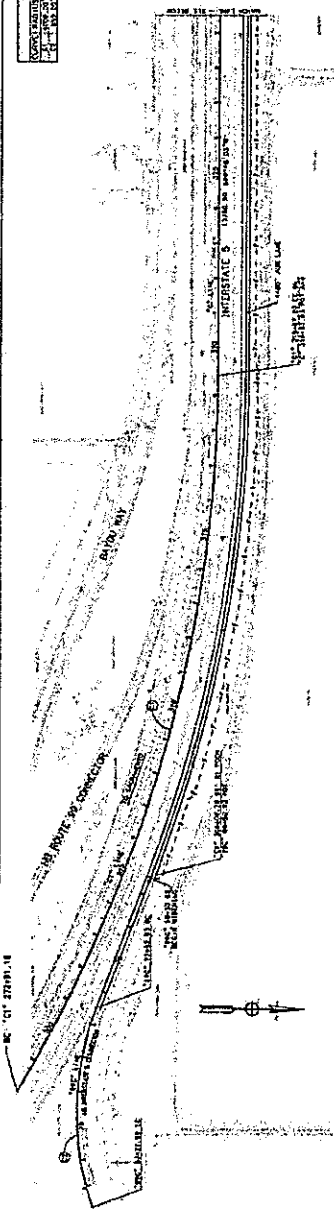


Vicinity Map

**GEOMETRICS**  
**I-5/METRO AIR PARKWAY NORTHBOUND AUXILIARY LANE**  
 SHEET NO. 01

DESIGNED BY	DATE	DRAWN BY	DATE
CHECKED BY	DATE	APPROVED	DATE
SCALE			

CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE CALIFORNIA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THE STANDARD SPECIFICATIONS FOR MATERIALS.



# Memorandum

Date: March 19, 2020  
 To: Jake Weir, Mark Thomas  
 From: Dave Stanek and Dave Robinson, Fehr & Peers  
 Subject: **I-5/Metro Air Parkway Interchange – Northbound Auxiliary Lane**

RS17-3547

Fehr & Peers prepared the transportation analysis report for the Interstate 5 (I-5)/Metro Air Parkway Interchange project (May 2010), and the freeway analysis was revised in a January 2018 memorandum to more recent forecast volumes. Since the January 2018 memo, the project phasing has changed in the northbound direction along I-5. The first phase of the I-5/Metro Air Parkway Interchange will construct a single-lane northbound off-ramp and a separate project will immediately follow to construct the northbound auxiliary lane. As a result, the freeway capacity analysis needs to be revised. This update was necessary to confirm the weave analysis for the auxiliary lane and Phase 1 project not previously studied.

The northbound auxiliary lane will create a weaving section of approximately 4,500 feet. As directed in Chapter 500 of the *Highway Design Manual* (Caltrans, 2019), the weaving section was evaluated using the Leisch Method. Under both Construction Year (2020) and Interim Year (2030) conditions, the segment is "out of the realm of weaving" for the combination of weaving volume and length. As a result, the *Highway Capacity Manual* (Transportation Research Board, 2016) analysis method for basic freeway segments was applied.

**Table 1: Freeway Operations with Phase 1**

Location	Construction Year (2020)		Interim Year (2030)	
	AM	PM	AM	PM
Northbound I-5: SR 99 to Metro Air Parkway <sup>1</sup>	C / 23	C / 20	D / 29	D / 28

Note: 1. The segment operates outside the realm of weaving for the given conditions, so the basic freeway analysis result is reported.

Source: Fehr & Peers.

**Attachment D**

**Right of Way Certification**

R/W Data Sheet - Local Public Agencies  
Page 2 of 5

III. Parcel Information (Land and Improvements)

Are there any property rights required within the proposed project limits?

No X Yes \_\_\_\_\_ (Complete the following.)

	Part Take	Full Take	Estimate \$
A. Number of Vacant Land Parcels	_____	_____	\$ _____
B. Number of Single Family Residential Units	_____	_____	\$ _____
C. Number of Multifamily Residential Units	_____	_____	\$ _____
D. Number of Commercial/Industrial Parcels	_____	_____	\$ _____
E. Number of Farm/Agricultural Parcels	_____	_____	\$ _____
F. Permanent and/or Temporary Easements	_____	_____	\$ _____
G. Other Parcels (define in "Remarks" section)	_____	_____	\$ _____
Totals	_____	_____	\$ _____

Provide a general description of the right of way and excess lands required (zoning, use, improvements, critical, or sensitive parcels, etc.).

IV. Dedications

Are there any property rights which have been acquired, or anticipate will be acquired, through the "dedication" process for the Project?

No X Yes \_\_\_\_\_ (Complete the following.)

Number of dedicated parcels N/A

Have the dedication parcel(s) been accepted by the municipality involved? N/A

V. Excess Lands/Relinquishments

Are there Caltrans property rights which may become excess lands or potential relinquishment areas?

No X Yes \_\_\_\_\_ (Provide an explanation on additional page.)

**VIII. Rail Information**

Are railroad facilities or railroad rights of way affected?

No X Yes \_\_\_\_\_ (Complete the following.)

Describe railroad facilities or railroad rights of way affected.

Owner's Name	Transverse Crossing	Longitudinal Encroachment
A.		
B.		

Discuss types of agreements and rights required from the railroads. Are grade crossings that require services contracts, or grade separations that require construction and maintenance agreements involved?

**IX. Clearance Information**

Are there improvements that require clearance?

No X Yes \_\_\_\_\_ (Complete the following.)

A. Number of Structures to be Demolished \_\_\_\_\_  
 Estimated Cost of Demolition \$ \_\_\_\_\_

**X. Hazardous Materials/Waste**

Are there any site(s) and/or improvements(s) in the Project Limits that are known to contain hazardous materials? None X Yes \_\_\_\_\_ (Explain in the "Remarks" section.)

Are there any site(s) and/or improvement(s) in the Project Limits that are suspected to contain hazardous waste? None X Yes \_\_\_\_\_ (Explain in the "Remarks" section.)

**XI. Project Scheduling**

	Proposed lead time	Completion date
* Preliminary Engineering, Surveys	<u>3</u> (months)	<u>January 2020</u>
* R/W Engineering Submittals	<u>N/A</u> (months)	_____
* R/W Appraisals/Acquisition	<u>N/A</u> (months)	_____
Proposed Environmental Clearance		_____
Proposed R/W Certification		<u>March 2020</u>

**RIGHT OF WAY CERTIFICATION**

EXHIBIT  
17-EX-18 (REV 1/2020)  
EA# 1J130

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Date:	<u>03/26/2020</u>
Dist.-Co.-Rte.-P.M.:	<u>03-SAC-05</u> <u>PM 30.22-31.2</u>
EA (Design Phase No.):	<u>1J130</u>
Const. Fed.-Aid No.: <sup>1</sup>	<u>None</u>
Right of Way Fed.-Aid No.: <sup>1</sup>	<u>None</u>

**Subject:** Right of Way Certification No. 1 for the project:  
I-5/Metro Air Parkway Interchange, Northbound Auxiliary Lane Project in Sacramento County.

**1. STATUS OF REQUIRED RIGHT OF WAY:** The acquisition of right of way was not required. All work proposed is within existing right of way acquired for a previous construction project.

**2. STATUS OF AFFECTED RAILROAD OPERATING FACILITIES:**

None affected.

**3. MATERIAL/DISPOSAL SITE(S)**

None required.

**4. STATUS OF REQUIRED UTILITY RELOCATIONS:**

There are no Utility Relocations required on the project. Therefore, Buy America compliance does not apply to the utility portion of the project.

The following utilities are located within the project's right of way, but require no relocations:

Company	Facility Type
Sacramento County Water Agency	Waterline

**5. RIGHT OF WAY CLEARANCE:**

There are no improvements or obstructions located within the limits of this project.

**6. AIRSPACE AGREEMENTS:**

There are no airspace lease properties within the limits of this project.

---



Accepted by:

  
\_\_\_\_\_

CALTRANS AUTHORIZED SIGNATURE

By: John Ballantyne

Title: Chief, North Region Right of Way

Date: 3/27/2020

Parcel No.	Owner	Project R/W Required	Excess (Yes/No)	Effective Date
Portions of 225-0020-003 225-0020-004	North Natomas/Airport De Matos, LLC, a California Limited Liability Company	.458 acres In Fee (GD 030542)	NO	9/15/2015
Portions of 225-0020-003 225-0020-004 225-0020-022 225-0020-023 225-0020-024		1.13 acres Easement for Drainage Canal (DCD 030545)	NO	
Portions of 225-0020-003 225-0020-004 225-0020-022 225-0020-024		1.814 acres for Easement for Public Roadway and Public Utilities (R 030543)	NO	
Portions of 225-0020-003 225-0020-004 225-0020-024		.365 acres for Easement for Above Ground Public Utility Facilities (E 30544)	NO	
Portions of 225-0020-003 225-0020-004 225-0020-022 225-0020-024		.803 acres for Easement for Temporary Construction (North Natomas TCE)	NO	

2. Parcels covered by Order for Possession: 0
3. Parcels covered by executed Right of Way Contract with Possession Clause: 0
4. Parcels covered by Possession and Use Agreement only: 0
5. Parcels covered by Right of Entry (emergencies/HQ pre-approved extraordinary circumstances) 0
6. Parcels covered by Resolution of Necessity Only: 0
7. Parcels covered by other acquisition documents as follows: 8

**4. STATUS OF REQUIRED UTILITY RELOCATIONS:** Select appropriate statement(s), remove those that do not apply:

All utility work has been or will be completed in accordance with applicable policy and procedure covering the adjustment of utility facilities. All utility notices have been issued and arrangements have been made with the owners of all conflicting utility encroachments remaining within the right of way, so that adequate control of the project right of way will be achieved. If applicable, federal participation has been determined.

All necessary arrangements have been made for remaining utility work to be completed as required for proper coordination with project construction. The special provisions in the contract provide for the coordination (see schedule below).

- Project specific utility agreement(s) are fully executed and include(s) the Buy America language.
- Project specific utility agreement(s) is (are) fully executed. Project is not covered by a NEPA document and Buy America requirements do not apply.
- Buy America compliance is not applicable for utility relocations as Utility Agreements are not required.

The following utilities are in conflict with the project and require relocations as follows:

R/W Notice No. and Date	Company	Type of Facility	Liability % (Owner = O) (Local Public Agency = LPA)	Utility Agreement Date	Federal Participation (Yes <sup>10</sup> /No)	Relocation schedule Start & End dates (or) concurrent with construction (or) bid item/s. Additional bid item info to be listed directly below <sup>11</sup>
2503.3L (01/31/19)	AT&T	Telephone	100% O	N/A	No	Concurrent with Construction
2503.4L (12/07/18)	SMUD	Electric Poles	100% O	N/A	No	Concurrent with Construction
2503.5L (4/02/19)	Consolidated Communications	Fiber Optic	100% O	N/A	No	Concurrent with Construction
2503.6L (04/09/19)	Sacramento County Water Agency	Waterline	100% C	04/09/19	No	Bid Item
2503.7L (03/29/19)	RD-1000	Drainage Canal	100% C	03/29/19	No	Bid Item

List each (applicable) bid item here:

Bid Item No.	Owner & Facility Type	Liability % (Owner = O) (Local Public Agency = LPA)	Federal Participation (Yes/No)
95	Sacramento County Water Agency - 16" Ductile Iron Pipe	100% C	No
96	Sacramento County Water Agency - Remove 16" Water Pipeline	100% C	No
24	RD-1000 - Roadway Excavation	100% C	No
54	RD-1000 - Structural Concrete, Wingwall	100% C	No

**Attachment E**

**Mandatory Design Exception Fact Sheet**



U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
CALIFORNIA DIVISION  
980 Ninth Street, Suite 400  
Sacramento, CA 95814-2724

March 30, 2000

IN REPLY REFER TO  
HDA-CA  
File #:03-SAC-5-47.5/52.5  
03-42550K  
Metro Airpark Interchange  
Document #:P31781

Ms. Irene Itamura  
District Director  
Caltrans, District 3  
P.O. Box 911  
Marysville, CA 95901

Attention: Mr. Michael S. Forga

Dear Ms. Itamura:

SUBJECT: CONCEPT ACCEPTANCE

Enclosed is a copy of the Federal Highway Administrator's acceptance of the concept of the proposed new Metro Airpark Interchange on Interstate 5 in Sacramento County. Approval of the access control modification will be given with completion of the environmental process for the Interstate 5 and State Route 99 improvements required to accommodate the additional access point.

If you have any questions, please call George Wishman at (916) 498-5056.

Sincerely,

A handwritten signature in cursive script that reads "Robert F. Ritchie".

For  
Michael G. Ritchie  
Division Administrator

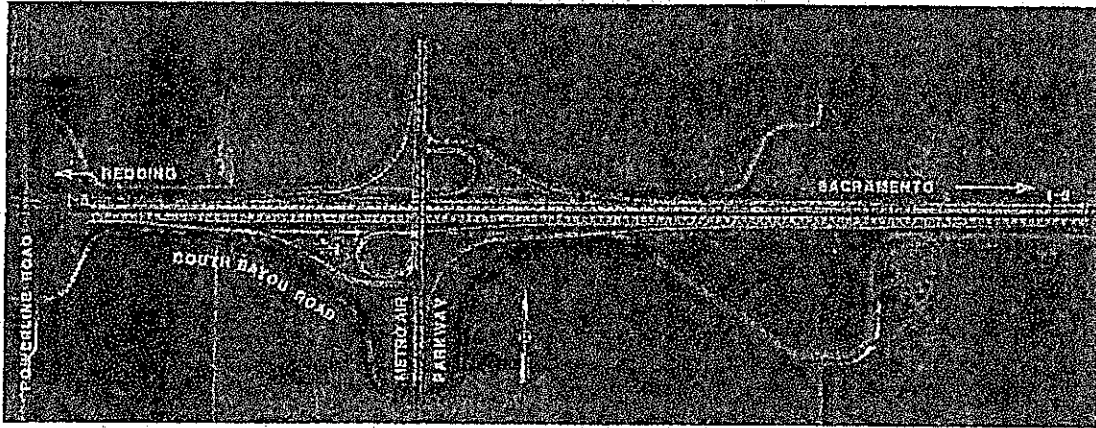
Enclosure

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# FINAL ENVIRONMENTAL IMPACT REPORT

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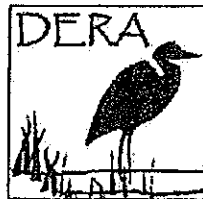
## *METRO AIR PARKWAY/I-5* Interchange



*Control Number: 99-PWE-0499*  
*State Clearinghouse Number: 2001062035*  
*December 18, 2006*

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COUNTY OF SACRAMENTO  
DEPARTMENT OF ENVIRONMENTAL  
REVIEW AND ASSESMENT  
827 7TH STREET, ROOM 220  
SACRAMENTO, CALIFORNIA 95814



**CATEGORICAL EXEMPTION/ CATEGORICAL EXCLUSION DETERMINATION FORM**

**03-SAC-05**

**29.5/32.7**

**42550**

Dist.-Co.-Rte. (or Local Agency)

P./M/P.M.

E.A. (State project)

Federal-Aid Project No. (Local project)/ Proj. No.

**PROJECT DESCRIPTION:**

(Briefly describe project, purpose, location, limits, right-of-way requirements, and activities involved.)

*Enter project description in this box. Use Continuation Sheet, if necessary*

The County of Sacramento proposes the construction of a new interchange on I-5 midway between State Route 99 separation and the Airport Boulevard interchange in northwestern Sacramento County. It will provide access to Metro Air Parkway and the arterial roadway that will serve proposed land development immediately east of the Sacramento International Airport.

**CEQA COMPLIANCE** (for State Projects only)

Based on an examination of this proposal, supporting information, and the following statements (See 14 CCR 15300 et seq.):

- If this project falls within exempt class 3, 4, 5, 6 or 11, it does not impact an environmental resource of hazardous or critical concern where designated, precisely mapped and officially adopted pursuant to law.
- There will not be a significant cumulative effect by this project and successive projects of the same type in the same place, over time.
- There is not a reasonable possibility that the project will have a significant effect on the environment due to unusual circumstances.
- This project does not damage a scenic resource within an officially designated state scenic highway.
- This project is not located on a site included on any list compiled pursuant to Govt. Code § 65962.5 ("Cortese List").
- This project does not cause a substantial adverse change in the significance of a historical resource.

**CALTRANS CEQA DETERMINATION** (Check one)

Exempt by Statute. (PRC 21080[b]; 14 CCR 15260 et seq.)

Based on an examination of this proposal, supporting information, and the above statements, the project is:

Categorically Exempt. Class \_\_\_\_\_. (PRC 21084; 14 CCR 15300 et seq.)

Categorically Exempt. General Rule exemption. [This project does not fall within an exempt class, but it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment (CCR 15061[b][3])

N/A

N/A

Print Name: Environmental Branch Chief

Print Name: Project Manager/DLA Engineer

Signature

Date

Signature

Date

**NEPA COMPLIANCE**

In accordance with 23 CFR 771.117, and based on an examination of this proposal and supporting information, the State has determined that this project:

- does not individually or cumulatively have a significant impact on the environment as defined by NEPA and is excluded from the requirements to prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS), and
- has considered unusual circumstances pursuant to 23 CFR 771.117(b)  
(<http://www.fhwa.dot.gov/hep/23cfr771.htm> - sec. 771.117).

In non-attainment or maintenance areas for Federal air quality standards, the project is either exempt from all conformity requirements, or conformity analysis has been completed pursuant to [42 USC 7506\(c\)](#) and [40 CFR 93](#).

**CALTRANS NEPA DETERMINATION** (Check one)

**Section 6004:** The State has been assigned, and hereby certifies that it has carried out, the responsibility to make this determination pursuant to Chapter 3 of Title 23, United States Code, Section 326 and a Memorandum of Understanding (MOU) dated June 7, 2007, executed between the FHWA and the State. The State has determined that the project is a Categorical Exclusion under:

- 23 CFR 771.117(c): activity (c) ()
- 23 CFR 771.117(d): activity (d) ()
- Activity 7 listed in the MOU between FHWA and the State

**Section 6005:** Based on an examination of this proposal and supporting information, the State has determined that the project is a CE under Section 6005 of 23 U.S.C. 327.

Jeremy Ketchum  
Print Name: Environmental Branch Chief

JOHN HOLDER  
Print Name: Project Manager/DLA Engineer

[Signature]  
Signature

6/2/10  
Date

[Signature]  
Signature

6-2-10  
Date

Briefly list environmental commitments on continuation sheet. Reference additional information, as appropriate (e.g., air quality studies, documentation of conformity exemption, FHWA conformity determination if Section 6005 project; §106 commitments; §4(f); §7 results; Wetlands Finding; Floodplain Finding; additional studies; and design conditions). **Revised September 15, 2008**

**Attachment I**

**Project Report**



This Project Report 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.

R. M. Brogan  
REGISTERED CIVIL ENGINEER

10/13/10  
DATE



## **1. Introduction/Background**

The purpose of this Project Report is to complete the Project Approval/Environmental Document (PA&ED) Phase of the Metro Parkway and Interstate 5 (I-5) Interchange Project.

The project began with the approval of a Project Study Report (completed in July of 1999), which was followed by the approval of a Draft Project Report (DPR) in July of 2006. Following the approval of the DPR, a Draft Environmental Impact Report (EIR) was prepared and publicly circulated for CEQA approval; this document was finalized and approved by the Sacramento County Board of Supervisors in September of 2008.

Following CEQA approval by the County, the DPR and NEPA approvals for the new connection to I-5 were not immediately finalized. In late 2009, the County decided to move forward with the final project approvals to complete the PA&ED phase. Due to the length of time that had passed since the approval of the DPR, CEQA documentation, and the project technical studies, it was determined that additional studies were needed to complete the project approvals. This Project Report updates these studies and will serve as the final documentation to complete the PA&ED phase.

The following studies have been updated and are included within this document:

- Traffic Analysis – including updated traffic counts (both mainline I-5 and surrounding intersection), traffic forecasts, and operations analysis.
- Geometric Approval Drawings & Structure General Plans – these are based upon the new traffic studies and have been brought to current Caltrans standards.
- Preliminary Cost Estimates
- Right of Way Data Sheets & Utility Information Sheets
- Transportation Management Plan

Based upon this updated information, a Categorical Exclusion was completed by Caltrans for NEPA approval. In order to complete this process, a new Air Quality Conformity Analysis was completed to ensure that the project meets current standards.

Concept Acceptance for the new connection to I-5 was approved by FHWA in March of 2000; a copy of the acceptance letter is shown in Attachment J. Due to the length of time that has passed, an additional review by FHWA will be required for Concept Approval. This Project Report is being submitted as the approval document.

The proposed interchange will be constructed in two phases. Completion of Phase One of the project is expected to be complete by 2012, while the Phase Two (Ultimate Design) will be constructed as needed after 2022. A detailed discussion of these phases is included elsewhere in this report.

**Existing Conditions (2009)**

The following sections summarize the results of the existing conditions operations analysis.

Freeway Weaving Sections

Weaving segment operations were analyzed for the northbound and southbound segments of I-5 between SR-99 and Del Paso Road. As shown in Table 1, the northbound segment of I-5 between Del Paso Road and SR-99 currently operates at LOS F during the PM peak hour.

<b>TABLE 1: FREEWAY OPERATIONS – EXISTING CONDITIONS</b>		
Mainline/Weaving Section	Peak Hour	Level of Service
1. I-5 NB between Del Paso Rd. and SR-99	AM <sup>1</sup> PM	- F
2. I-5 SB between SR-99 and Del Paso Rd.	AM PM	D C
Notes: <sup>1</sup> Out of the realm of weaving according to Leisch Method Weaving Analysis; analyzed as a major diverge. Bold indicates unacceptable operations. Source: Fehr & Peers, 2010.		

Freeway Ramp Junctions

Table 2 summarizes the results of the existing conditions freeway ramp junction analysis. As shown in Table 2, all freeway ramp junctions operate acceptably under existing conditions.

<b>TABLE 2: FREEWAY RAMP OPERATIONS – EXISTING CONDITIONS</b>				
Ramp Junction	Peak Hour	Merge/ Diverge	Density <sup>1</sup>	Level of Service
1. I-5 NB Diagonal Off-ramp at Airport Blvd.	AM PM	Diverge	31 26	D C
2. I-5 NB Loop On-ramp at Airport Blvd.	AM PM	Merge	22 19	C B
3. I-5 NB Slip On-ramp at Airport Blvd.	AM PM	Merge	22 20	C C
4. I-5 SB Diagonal Off-ramp at Airport Blvd.	AM PM	Diverge	16 24	B C
5. I-5 SB Loop On-ramp at Airport Blvd.	AM PM	Merge	12 24	B C
6. SR-99 NB Diagonal Off-ramp at Elkhorn Blvd.	AM PM	Diverge	15 38	B E

TABLE 3: INTERSECTION LEVEL OF SERVICE – EXISTING CONDITIONS					
Intersection	Control	AM Peak Hour		PM Peak Hour	
		Delay <sup>1</sup>	LOS	Delay <sup>1</sup>	LOS
1. I-5 NB Ramps/Airport Blvd.	Side-Street Stop	6	A	20	C
2. I-5 SB Ramps/Airport Blvd.	Side-Street Stop	7	A	9	A
3. SR-99 SB Ramps/Elkhorn Blvd.	Side-Street Stop	5	A	5	A
4. SR-99 NB Ramps/Elkhorn Blvd.	Side-Street Stop	16	C	>50	F

Notes: **Bold** indicates unacceptable operations.  
<sup>1</sup>Intersection delay is based on the average intersection control delay for signalized and all-way stop-controlled intersections. The worst case stop-controlled movement is reported for side-street stop-controlled intersections.  
 Source: Fehr & Peers, 2010.

### Traffic Safety

Table 4 shows a summary of traffic accident data on I-5 and SR-99 in the project vicinity. The data is obtained from the TASAS database maintained by Caltrans. The data shown is for the three-year period between beginning January 2006 and ending December 2008.

TABLE 4: INTERSTATE 5 / STATE ROUTE 99 ACCIDENT SUMMARY JANUARY 2006 THROUGH DECEMBER 2008				
Location	Total Accidents	Total Fatalities	Actual Accident Rate <sup>1</sup>	Average Accident Rate <sup>1</sup>
<b>Mainline</b>				
1. I-5 between SR-99 and Airport Blvd.	89	2	0.13	0.72
<b>Ramps</b>				
1. I-5 SB on from SR-99 SB	12	0	<u>0.56</u>	0.35
2. I-5 NB off to SR-99 NB	0	0	0.00	0.45
3. I-5 NB on from SR-99 SB	0	0	0.00	0.35
4. I-5 SB off to SR-99 NB	0	0	0.00	0.60
5. I-5 NB off to Airport Blvd.	5	0	0.20	1.20
6. I-5 NB on from NB Airport Blvd.	0	0	0.00	0.65
7. I-5 SB on from Airport Blvd.	1	0	0.00	0.55
8. I-5 NB on from SB Airport Blvd.	1	0	0.00	0.60
9. I-5 SB off to Airport Blvd.	1	0	0.00	1.20
10. SR-99 NB off to Elkhorn Blvd.	6	0	0.44	1.20
11. SR-99 SB on from EB Elkhorn Blvd.	0	0	0.00	0.65
12. SR-99 NB on from EB Elkhorn Blvd.	1	0	<u>15.15</u> <sup>2</sup>	0.70
13. SR-99 SB on from WB Elkhorn Blvd.	0	0	0.00	0.65

The following sections summarize the results of the construction year (2012) operations analysis. The freeway weaving sections, ramp junctions, and ramp terminal intersections were analyzed to determine construction year operations.

Freeway Weaving Sections

Weaving segment operations were analyzed for the northbound and southbound segments of I-5 between SR-99 and Del Paso Road. As shown in Table 5, the northbound segment of I-5 between Del Paso Road and SR-99 will continue to operate at LOS F during the PM peak hour since no improvements are planned for this segment prior to the construction year.

<b>TABLE 5: FREEWAY OPERATIONS – CONSTRUCTION YEAR (2012) CONDITIONS</b>		
Mainline/Weaving Section	Peak Hour	Level of Service
1. I-5 NB between Del Paso Rd. and SR-99	AM PM	C F
2. I-5 SB between SR-99 and Del Paso Rd.	AM PM	D C
Notes: Bold indicates unacceptable operations. Source: Fehr & Peers, 2010.		

Freeway Ramp Junctions

The results of the freeway ramp junction traffic operations analysis are shown in Table 6. All ramp junctions within the study area continue to operate acceptably under construction year conditions except for the northbound SR-99 northbound diagonal off-ramp to Elkhorn Boulevard. This ramp junction is expected to operate at LOS F during the PM peak hour.

<b>TABLE 6: FREEWAY RAMP OPERATIONS – CONSTRUCTION YEAR (2012) CONDITIONS</b>				
Ramp Junction	Peak Hour	Merge/ Diverge	Density <sup>1</sup>	Level of Service
1. I-5 NB Diagonal Off-ramp at Airport Blvd.	AM PM	Diverge	32 28	D C
2. I-5 NB Loop On-ramp at Airport Blvd.	AM PM	Merge	22 20	C C
3. I-5 NB Slip On-ramp at Airport Blvd.	AM PM	Merge	23 21	C C
4. I-5 SB Diagonal Off-ramp at Airport Blvd.	AM PM	Diverge	18 25	B C
5. I-5 SB Loop On-ramp at Airport Blvd.	AM	Merge	14	B

With the initial Phase 1 interchange, both Metro Parkway ramp terminal intersections operate at LOS A without signalization in 2012. However, by interim year 2022, it is anticipated that the volumes will increase to a level that will require signalization of the I-5 Northbound Ramps/Metro Parkway intersection. For this reason, an analysis was conducted to estimate the year that signal warrants would likely be met at this intersection. Using linear interpolation between the 2012 and 2022 forecasts, it was estimated that the northern ramp terminal intersection would likely meet traffic signal warrants by 2017. It is the recommendation of this study that traffic signal conduit be placed as part of the initial construction of the Phase 1 interchange. Sacramento County will then monitor traffic volumes at the I-5 Northbound Ramps/Metro Parkway intersection and install the signal when warrants are met.

**TABLE 7:  
 INTERSECTION LEVEL OF SERVICE – CONSTRUCTION YEAR (2012) CONDITIONS**

Intersection	Control	AM Peak Hour		PM Peak Hour	
		Delay <sup>1</sup>	LOS	Delay <sup>1</sup>	LOS
1. I-5 NB Ramps/Airport Blvd.	Side-Street Stop	9	A	12	B
2. I-5 SB Ramps/Airport Blvd.	Side-Street Stop	8	A	9	A
3. SR-99 SB Ramps/Elkhorn Blvd.	Side-Street Stop	8	A	7	A
4. SR-99 NB Ramps/Elkhorn Blvd.	Side-Street Stop	37	E	>80	F
5. I-5 NB Ramps/Metro Parkway	Side-Street Stop	10	A	10	A
6. I-5 SB Ramps/Metro Parkway	Side-Street Stop	6	A	6	A

Notes: **Bold** indicates unacceptable operations.  
<sup>1</sup>Intersection delay is based on the average intersection control delay for signalized and all-way stop-controlled intersections. The worst case stop-controlled movement is reported for side-street stop-controlled intersections.  
 Source: Fehr & Peers, 2010.

levels of service on this segment of the freeway. An analysis was conducted to estimate the year that traffic using the I-5/Metro Parkway interchange would cause this portion of I-5 to no longer operate acceptably due to the failure of merge/diverge operations at Metro Parkway. For this analysis, the initial calculations held freeway background traffic constant at interim year levels, and traffic using the Metro Parkway interchange was increased using linear interpolation between the interim year and design year forecasted ramp volumes. A second calculation allowed background freeway traffic to grow linearly alongside interchange traffic. The analysis found the following critical ramp volumes:

- I-5 NB between SR-99 and Metro Parkway: 1,050 – 1,680 vehicles exiting I-5 NB at Metro Parkway (estimated to occur between 2026 and 2031)
- I-5 SB between Metro Parkway and SR-99: 1,000 vehicles per hour accessing I-5 SB from Metro Parkway (estimated to occur by 2025)

At the thresholds reported above, auxiliary lanes will be required on I-5 between Metro Parkway and SR-99 to maintain acceptable levels of operation.

**TABLE 9:  
 FREEWAY RAMP OPERATIONS – INTERIM YEAR (2022) CONDITIONS**

Ramp Junction	Peak Hour	Merge/ Diverge	Density <sup>1</sup>	Level of Service
1. I-5 NB Diagonal Off-ramp at Airport Blvd.	AM	Diverge	34	D
	PM		33	D
2. I-5 NB Loop On-ramp at Airport Blvd.	AM	Merge	23	C
	PM		23	C
3. I-5 NB Slip On-ramp at Airport Blvd.	AM	Merge	24	C
	PM		25	C
4. I-5 SB Diagonal Off-ramp at Airport Blvd.	AM	Diverge	25	C
	PM		29	D
5. I-5 SB Loop On-ramp at Airport Blvd.	AM	Merge	20	C
	PM		28	C
6. SR-99 NB Diagonal Off-ramp at Elkhorn Blvd.	AM	Diverge	25	C
	PM		-	F
7. SR-99 NB Loop On-ramp at Elkhorn Blvd.	AM	Merge	19	B
	PM		38	E
8. SR-99 NB Slip On-ramp at Elkhorn Blvd.	AM	Merge	21	C
	PM		-	F
9. SR-99 SB Diagonal Off-ramp at Elkhorn Blvd.	AM	Diverge	-	F
	PM		26	C
10. SR-99 SB Loop On-ramp at Elkhorn Blvd.	AM	Merge	-	F
	PM		26	C
11. SR-99 SB Slip On-ramp at Elkhorn Blvd.	AM	Merge	-	F
	PM		29	D
12. I-5 SB Off-ramp to SR-99 NB	AM	Diverge	30	D

**TABLE 10:  
 INTERSECTION LEVEL OF SERVICE – INTERIM YEAR (2022) CONDITIONS**

Intersection	Control	AM Peak Hour		PM Peak Hour	
		Delay <sup>1</sup>	LOS	Delay <sup>1</sup>	LOS
1. I-5 NB Ramps/Airport Blvd.	Side-Street Stop	9	A	>80	F
2. I-5 SB Ramps/Airport Blvd.	Side-Street Stop	8	A	13	B
3. SR-99 NB Ramps/Elkhorn Blvd.	Signalized	15	B	21	C
4. SR-99 SB Ramps/Elkhorn Blvd.	Signalized	9	A	8	A
5. I-5 NB Ramps/Metro Parkway	Signalized	27	C	14	B
6. I-5 SB Ramps/Metro Parkway	Side-Street Stop	21	C	15	C

Notes: **Bold** indicates unacceptable operations.  
<sup>1</sup>Intersection delay is based on the average intersection control delay for signalized and all-way stop-controlled intersections. The worst case stop-controlled movement is reported for side-street stop-controlled intersections.  
 Source: Fehr & Peers, 2010.

**DESIGN YEAR (2032) CONDITIONS**

The design year analysis presents information regarding the physical and operational characteristics of the roadway system under 2032 conditions.

Freeway Weaving Sections

Weaving segment operations were analyzed for the northbound and southbound segments of I-5 between SR-99 and Del Paso Road, and between SR-99 and Metro Parkway. As shown in Table 11, the segment of I-5 between Del Paso Road and SR-99 will continue to operate at LOS F in both the northbound and southbound directions. The segment of I-5 between Metro Parkway and SR-99 is expected to operate acceptably in both the northbound and southbound directions under design year 2032 conditions due to the addition of auxiliary lanes.

**TABLE 11:  
 FREEWAY OPERATIONS – DESIGN YEAR (2032) CONDITIONS**

Mainline/Weaving Section	Peak Hour	Level of Service
1. I-5 NB between Del Paso Rd. and SR-99	AM	E
	PM	F
2. I-5 SB between SR-99 and Del Paso Rd.	AM	F
	PM	F
3. I-5 NB between SR-99 and Metro Pkwy.	AM	D
	PM	D
4. I-5 SB between Metro Pkwy. and SR-99	AM	D
	PM	E

Notes: <sup>1</sup> Density measured in passenger car equivalents per lane per mile for mainline segments. Density not reported for weaving segments.  
**Bold** indicates unacceptable operations.  
 Source: Fehr & Peers, 2010.



TABLE 12: FREEWAY RAMP OPERATIONS – DESIGN YEAR (2032) CONDITIONS				
Ramp Junction	Peak Hour	Merge/ Diverge	Density <sup>1</sup>	Level of Service
14. I-5 NB Loop On-ramp at Metro Pkwy.	AM	Merge	25	C
	PM		25	C
15. I-5 NB Slip On-ramp at Metro Pkwy.	AM	Merge	27	C
	PM		26	C
16. I-5 SB Diagonal Off-ramp at Metro Pkwy.	AM	Diverge	26	C
	PM		35	D
Notes:				
<sup>1</sup> Density measured in passenger car equivalents per lane per mile				
Bold indicates unacceptable operations.				
Source: Fehr & Peers, 2010.				

### Intersection Level of Service

Under design year (2032) conditions, ramp terminal intersections were analyzed at the Airport Boulevard, Elkhorn Boulevard, and Metro Parkway interchanges. Under 2022 conditions, the I-5 Northbound Ramps/Airport Boulevard intersection continues to operate at LOS F. However, as was the case under interim year conditions, the unacceptable level of delay at this side-street stop-controlled intersection is for the worst case movement (westbound left turn), and most users at this intersection will still experience low levels of delay. Under 2032 conditions the intersection will still not satisfy a peak hour traffic signal warrant (see technical appendix for calculations). For these reasons, no improvements are recommended at the I-5 Northbound Ramps/Airport Boulevard intersection under design year conditions. Table 13 presents the results of the design year (2032) intersection level of service analysis.

TABLE 13: INTERSECTION LEVEL OF SERVICE – DESIGN YEAR (2032) CONDITIONS					
Intersection	Control	AM Peak Hour		PM Peak Hour	
		Delay <sup>1</sup>	LOS	Delay <sup>1</sup>	LOS
1. I-5 NB Ramps/Airport Blvd.	Side-Street Stop	10	A	>80	F
2. I-5 SB Ramps/Airport Blvd.	Side-Street Stop	12	B	11	B
3. SR-99 SB Ramps/Elkhorn Blvd.	Signalized	15	B	13	B
4. SR-99 NB Ramps/Elkhorn Blvd.	Signalized	30	C	31	C
5. I-5 NB Ramps/Metro Parkway	Signalized	19	B	19	B
6. I-5 SB Ramps/Metro Parkway	Signalized	17	B	16	B
Notes: Bold indicates unacceptable operations.					
<sup>1</sup> Intersection delay is based on the average intersection control delay for signalized and all-way stop-controlled intersections. The worst case stop-controlled movement is reported for side-street stop-controlled intersections.					
Source: Fehr & Peers, 2010.					

lane on the southbound loop ramp. Continuous auxiliary lanes will be constructed on I-5 in the northbound and southbound directions between SR99 and Metro Parkway.

The Phase Two will also widen the overpass to include two additional southbound lanes and one additional northbound lane. Modifications to the ramp terminal intersections will include the widening of the northbound off-ramp approach for an additional right-turn lane. Improvements to the northbound I-5 ramps/Metro Parkway intersections will also include an exclusive right-turn lane and an additional through lane on the northbound approach, while two additional through lanes will be constructed on the southbound approach.

#### Right-of-Way Data

There are 31.38 acres of right-of-way affecting 22 parcels will be acquired for the proposed interchange. Previously identified barns and homes within the footprint of the project have been removed. The dedication agreements are being drafted by the County of Sacramento and the owners of adjacent parcels. These parcels will need to be acquired if the dedication process fails. The utilities that need to be relocated include an AT&T overhead telephone line/fiber optic, SMUD overhead electrical lines, Surewest underground fiber optic facilities, Reclamation District 1000's irrigation ditch, and Sacramento County Water Agency's 16" water line. The Right-of-Way Data Sheet and Utility Information Sheet have been prepared and included in Attachment F. The total cost for right-of-way (including acquisition costs, Title and Escrow fees, and Utility Relocation costs) is \$1,940,000.

#### CHP Enforcement Areas

All the proposed entrance ramps have been provided with CHP Enforcement Area per Chapter 500 of Caltrans Highway Design Manual.

The proposed ramps have also been provided with Maintenance Pullouts for Maintenance and Operations personnel safe access to controller cabinets.

#### Erosion Control

Construction activities, such as clearing, grading, and excavation, will result in 94.0 acres of soil disturbance and will comply with National Pollutant Discharge Elimination System (NPDES) General Permit for "Storm Water Discharges Associated with Construction and Land Disturbance Activities" (Order No. 2009-0009-DWQ, NPDES No. CAS000002).

Both temporary and permanent Best Management Practices (BMPs) have been documented in the updated Storm Water Data Report and will be incorporated into the design of the project.

**Table 14: Mandatory and Advisory Design Exceptions**

Index	Standard	Exception Locations
HDM 501.3	"The minimum interchange spacing shall be 1 mile in urban areas, 2 miles in rural areas, and 2 miles between freeway-to-freeway interchanges and local street interchanges."	1) Between I-5/Metro Parkway interchange and I-5/SR-99 junction  Mandatory Standard: 2 miles Design: 1.5 miles  <b>Exception Approved in 1999</b>
HDM 202.2	"Superelevation rates from Table 202.2. shall be used within the given range of curve radii."	1) On the northbound exit ramp, with a curve radius of 350 ft.  2) On the southbound exit ramp, with a curve radius of 350 ft.  Mandatory Standard: 12% Design: 6%
HDM 202.5 (1)	"A superelevation transition should be designed in accordance with the diagram and tabular data shown in Figure 202.5A."	1) SB exit ramp <u>Advisory Standard runoff length: 150ft</u> Design: 100ft  2) SB loop entrance ramp <u>Advisory Standard runoff length: 300ft</u> Design: 200ft  3) NB loop entrance ramp <u>Advisory Standard runoff length: 300ft</u> Design: 200ft

High Occupancy Vehicles (HOV) Lanes

All proposed on-ramps are metered with HOV bypass lanes (see Attachment B).

Ramp Metering

A ramp metering analysis was conducted for construction year (2012), interim year (2022), and ultimate design year (2032) conditions to determine the most restrictive metering rate that the southbound and northbound on-ramps at the I-5/Metro Parkway interchange could accommodate before the vehicle queue would exceed the available storage. Table 15 summarizes the results of the ramp meter operations analysis.

The existing 16" waterline will be relocated as a part of the construction contract. This will be located outside of Caltrans right of way within a County easement adjacent to the RD-1000 canal.

Detailed list and description of utilities involved are summarized in the Utility Information Sheet (Attachment F).

Cost Estimates

Attachment D contains two separate engineer's estimates outlining costs for the interim and the ultimate project phases. A summary of the project costs are provided below:

	Phase One (Interim Design)	Phase Two (Ultimate Design)
Roadway Items	\$11,780,000	\$19,950,000
Structure Items	\$2,390,000	\$4,620,000
Storm Water	\$430,000	\$740,000
Right of Way & Utilities	\$1,940,000	\$1,940,000
<b>Total Capital Cost</b>	<b>\$16,540,000</b>	<b>\$27,250,000</b>
Construction Management	\$1,460,000	\$2,530,000
Construction Staking	\$440,000	\$760,000
Administration	\$150,000	\$250,000
<b>Total Support Cost</b>	<b>\$2,050,000</b>	<b>\$3,540,000</b>
<b>Total Project Cost</b>	<b>\$18,590,000</b>	<b>\$30,790,000</b>

**6. Considerations Requiring Discussions**

**A. Right of Way Issues**

Approximately 31.4 acres of right-of-way will need to be acquired for the Ultimate Interchange improvements; the total estimated cost for the right of way acquisitions (including acquisition costs, Title and Escrow fees, and Utility Relocation costs) is \$1,940,000. A Right-of-Way Data Sheet has been prepared for the project and is included as Attachment F.

The project is 100% locally funded by the County of Sacramento, and the County will be performing the appraisals and acquisitions.

**B. Environmental Issues**

Sacramento County is the Lead Agency for the California Environmental Quality Act (CEQA), and Caltrans is the Lead Agency for the National Environmental Policy Act (NEPA).

An Environmental Impact Report (EIR) for CEQA approval was adopted by the Sacramento County Board of Supervisors in September of 2008. Impacts identified

median, and two freeway travel lanes in each direction can be provided through standard falsework openings. Lane closures on Interstate 5 will be limited to night time hours for bridge falsework erection/removal.

Future widening of Metro Parkway and all ramp terminals can be accomplished using conventional traffic controls and planned detours as necessary to mitigate traffic inconvenience and delays caused by construction activities.

## 8. Programming

The proposed modifications for the Metro Parkway/I-5 interchange are part of the overall transportation improvement program being implemented by SACOG. Within the 2009/12 Metropolitan Transportation Improvement Program, the interchange is listed as a regionally significant improvement project.

The Metro Air Park (MAP) Development currently has a financing plan in place for Engineering, Right of Way, and Construction. Bond funding for the Engineering and Right of Way for Phase 1 is in place. Construction costs for both Phase 1 and the Ultimate Phase will come from a Fee Program tied to building permit fees associated with the development. In order to advance Phase 1, the MAP Development may advance fees for the construction of the first phase and wait for reimbursement from the MAP Financing Plan.

The project milestones for Phase 1 are summarized below.

### Project Milestone Schedule

Right-of-Way Certification	May 2011
Project Listing	May 2011
Award Contract	July 2011
Complete Construction	October 2012

The Ultimate Phase of the interchange is anticipated to be under construction by 2022.

## 9. Reviews

The project has been reviewed by the Caltrans Headquarters Project Development Coordinator and the Headquarters Design Reviewer. All comments have been incorporated in this project report.

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## **11. List of Attachments**

- A. Vicinity Map
- B. Geometric Approval Drawings
- C. Bridge General Plan
- D. Preliminary Cost Estimates
- E. Mandatory /Advisory Design Exception Fact Sheet
- F. Right of Way Data Sheet/Utility Information Sheet
- G. Final Traffic Report
- H. Final Environmental Impact Report/CE/Categorical Exclusion
- I. Transportation Management Plan Data Sheet
- J. FHWA Concept Acceptance Letter
- K. Storm Water Data Report

# EXHIBIT C

**Trade Corridor Improvement Fund  
Project Benefits Form**

**Project Title:** Interstate-5 Northbound Auxiliary Lane Project from I-5 / SR 99 Ramp Connector to Metro Air Parkway Interchange in Sacramento County

**Project Category:** Highway

**Project Type:** Auxiliary Lane

**Outputs:** 0.98 mile Auxiliary Lane

**Outcomes:**

Safety	While there is no crash modification factor (CMF) in the Caltrans Highway Manual for auxiliary lanes, National Cooperative Highway Research Program Report 687 shows a CMF of 0.79 (21% reduction in overall crashes) when auxiliary lanes are added to facilitate weaving between entrance and exit ramp. This reduction applies almost equally to fatal plus injury crashes and property damage only crashes.
Velocity	40 mile per hour increase for merging traffic.
Throughput	Increase of 668 5-axle trucks per day
Reliability	3,910 daily person-minutes saved during peak period
Congestion Reduction	54 Hours Reduction in Daily Vehicle Hours of Delay
Emissions Reduction	Reduction of 4 Tons of Nitrogen Oxides (NOx) over 20 years Reduction of 559 Tons of Carbon Dioxide (CO2) over 20 years