

**CALIFORNIA TRANSPORTATION COMMISSION
JUNE 2022 AMENDED BASELINE AGREEMENT**

On June 29, 2022, the California Transportation Commission approved an amendment to the 2020 Solutions for Congested Corridors Program Baseline Agreement for the **Placer-Sacramento Gateway Corridor Phase 1 Project**.

This amendment included the following documents:

1. Letter from the implementing agency to request this amendment (page 2)
2. June 2022 Commission action approving the amendment to the Baseline Agreement (pages 3-5)
3. May 2022 Commission action approving the program amendment (pages 6-9)
4. Revised electronic Project Programming Requests for the impacted components (pages 10-24)
5. Original Baseline Agreement received by the Commission in June 2021 (pages 11-330)



Public Works
Alternative Transportation
316 Vernon Street, Suite 150
Roseville, California 95678

June 1, 2022

Mitchell Weiss
Executive Director
California Transportation Commission
1120 N Street, MS 52
Sacramento, CA 95814

Dear Mr. Weiss,

Please accept this letter as a formal request to amend the Baseline Agreement for the Placer Sacramento Gateway Corridor (PSGC) Phase 1 project, which has funding under the 2020 Solutions for Congested Corridors Program.

The City of Roseville is the implementing agency for the South Placer Transit component of the PSGC Phase 1 project. The City submitted a request to amend the program and split the South Placer Transit project into two individual components, one for the purchase of battery-electric buses and one for the purchase and installation of chargers.

The request to amend the program was approved by the California Transportation Commission (CTC) meeting at their meeting of May 18-19, 2022. It is our understanding that the Baseline Agreement for the project must now be amended to reflect the program amendment, and that is the reason for this letter.

Please let me know if you have any questions.

Sincerely,

Michael Dour

Digitally signed by
Michael Dour
Date: 2022.06.01 11:10:59
-07'00'

Michael Dour
Alternative Transportation Manager

Memorandum

To: CHAIR AND COMMISSIONERS

CTC Meeting: June 29-30, 2022

From: MITCH WEISS, Executive Director

Reference Number: 4.25, Action

Prepared By: Naveen Habib
Associate Deputy Director

Published Date: June 17, 2022

Subject: Amendment to the 2020 Solutions for Congested Corridors Program Baseline Agreement for the Placer-Sacramento Gateway Corridor Phase 1 Project – Resolution SCCP-P-2122-04BA, Amending Resolution SCCP-P-2021-05B

Recommendation:

Staff recommends the California Transportation Commission (Commission) approve an amendment to the 2020 Solutions for Congested Corridors Program Baseline Agreement, submitted in accordance with the Commission's Senate Bill (SB) 1 Accountability and Transparency Guidelines and establish the agreement as the basis for project delivery and monitoring.

Specifically, the South Placer Transit – Five Chargers project component (PPNO 1535B) is recommended to be added to the Placer-Sacramento Gateway Phase 1 Project Baseline Agreement through this amendment. There are no changes to the other components. The Baseline Agreement will include the following project components, including the new addition:

PPNO	County	Implementing Agency	Project Title (with embedded link to amended Baseline Agreement)
5147	Placer / Sacramento	California Department of Transportation (Caltrans)	Auburn Boulevard Ramp Meter
1531	Placer / Sacramento	City of Citrus Heights	Auburn Boulevard Complete Streets
1526	Placer / Sacramento	City of Roseville	Dry Creek Greenway
1533	Placer / Sacramento	Sacramento County	Watt Avenue Complete Streets
1534	Placer / Sacramento	Sacramento Regional Transit District	Watt/I-80 Light Rail Station
1532A	Placer / Sacramento	Sacramento Regional Transit District	Light Rail Modernization - Stations

PPNO	County	Implementing Agency	Project Title (with embedded link to amended Baseline Agreement)
5101	Placer / Sacramento	Caltrans	I-80 Transit Reliability
1535A	Placer / Sacramento	City of Roseville	South Placer Transit - Five Electric Buses
1535B	Placer / Sacramento	City of Roseville	South Placer Transit - Five Chargers
2201	Placer / Sacramento	Sacramento Regional Transit District	Light Rail Modernization - Light Rail Vehicles

Issue:

As the implementing agency, the City of Roseville requests the Commission approve the amendment to the 2020 Solutions for Congested Corridors Program Baseline Agreement for the Placer-Sacramento Gateway Phase 1 Project, which was programmed as part of the 2020 Solutions for Congested Corridors Program.

During the May 2022 meeting, the Commission approved a program amendment to the 2020 Solutions for Congested Corridors Program to add one new project component and redistribute \$6,000,000 in Solutions for Congested Corridors Program funding between two project components (\$4,705,000 allocated to the South Placer Transit - Five Electric Buses component and \$1,295,000 to the South Placer Transit - Five Chargers component). Originally, the South Placer Transit project component included the purchase of five electric buses along with the purchase of five chargers and site improvements to support the new buses. However, due to the outstanding design for the chargers and site improvements, the City of Roseville requested the program amendment to split the original component scope into two separate components to be able to request an allocation to purchase the five electric buses expeditiously. This approved action necessitated an amendment to add the South Placer Transit – Five Chargers project component (PPNO 1535B) to the original Baseline Agreement approved by the Commission in June 2021.

Commission staff has reviewed the amended Baseline Agreement and determined that the expected benefits, delivery schedule, cost, and funding plan are consistent with the project amendment approved by the Commission. Approval of this amended Baseline Agreement will establish the basis for project delivery and monitoring.

Background:

The Commission adopted the SB 1 Accountability and Transparency Guidelines at its March 21, 2018, meeting and directed agencies to provide executed Baseline Agreements that set forth the agreed-upon expected benefits, delivery schedule, project cost, and funding plan. The Baseline Agreement provides a benchmark for comparison to the current status of a project for subsequent reporting purposes. The Baseline Agreement must be signed by the Caltrans Director and District Director, the Commission's Executive Director, the project applicant, and the implementing agency.

On December 2, 2020, the Commission approved the 2020 Solutions for Congested Corridors Program. That action included programming \$67 million for the Placer-Sacramento Gateway Phase 1 Project.

During the June 2021 meeting, the Commission approved the Baseline Agreement for the Placer-Sacramento Gateway Corridor Phase 1 Project.

During the May 2022 meeting, the Commission approved the program amendment to add one new project component and redistribute \$6,000,000 between two project components, South Placer Transit - Five Electric Buses and South Placer Transit - Five Chargers. The Commission also approved the allocation of \$4,705,000 to the Placer-Sacramento Gateway Phase 1 Project's South Placer Transit - Five Electric Buses project component.

Memorandum

To: CHAIR AND COMMISSIONERS

CTC Meeting: May 18-19, 2022

From: MITCH WEISS, Executive Director

Reference Number: 4.11, Action

Prepared By: Naveen Habib
Associate Deputy Director

Published Date: May 6, 2022

Subject: Amendment to the 2020 Solutions for Congested Corridors Program,
Resolution G-22-40, Amending Resolution G-21-68

Recommendation:

Staff recommends the California Transportation Commission (Commission) approve amendments to the 2020 Solutions for Congested Corridors Program, as reflected in the updated Program of Projects (Attachment B).

Issue:

The City of Roseville, as an implementing agency of a project component in the greater Placer-Sacramento Gateway Corridor Phase I project, requests the Commission consider a program amendment the 2020 Solutions for Congested Corridors Program. This program amendment would split an existing project component into two individual components, as reflected below and in Attachment B. Program amendments that preserve the original project scope, cost, and delivery timelines are allowable in the Solutions for Congested Corridors Program.

The Placer-Sacramento Gateway Corridor Phase 1 South Placer Transit project component includes the purchase of five electric buses along with the purchase of five chargers and site improvements to support the new buses. Due to the outstanding design for the chargers and site improvements, the City of Roseville requests consideration of this program amendment to split the original component scope into two separate components. This will allow the City of Roseville to request an allocation to purchase the five electric buses expeditiously.

This program amendment would amend the project delivery and title for the South Placer Transit project component while preserving the original project scope and delivery timeline and maintaining the original programmed amount. Specifically, the amendment would:

1. Change the original project component name from “South Placer Transit” to “South Placer Transit - 5 Electric Buses.”

2. Add one new project component as follows:

a. South Placer Transit - Five Chargers

- To support the battery-electric buses being purchased as part of the South Placer Transit - Five Electric Buses project component.

3. Redistribute the Solutions for Congested Corridors Program funding of \$6,000,000 between the two components as follows:

a. South Placer Transit - Five Electric Buses (\$4,705,000)

b. South Placer Transit - Five Chargers (\$1,295,000)

This amendment is consistent with the Solutions for Congested Corridor Program guidelines.

Background:

On December 2, 2020, the Commission approved the 2020 Solutions for Congested Corridors Program, which included programming \$67 million for the Placer-Sacramento Gateway Corridor Phase 1 project.

During the June 2021 meeting, the Commission approved the baseline agreement for the Placer-Sacramento Gateway Corridor Phase 1 project.

During the October 2021 meeting, the Commission approved the allocation of \$500,000 to the Placer-Sacramento Gateway Corridor Phase 1 Auburn Boulevard Ramp Meter project component.

Attachments:

- Attachment A: Resolution G-22-40, Amending Resolution G-21-68
- Attachment B: Updated 2020 Solutions for Congested Corridors Program of Projects

CALIFORNIA TRANSPORTATION COMMISSION
Amendment to the 2020 Solutions for Congested Corridors Program

RESOLUTION G-22-40
Amending Resolution G-21-68

- 1.1 **WHEREAS**, the California Transportation Commission (Commission) adopted the 2020 Solutions for Congested Corridors Program, Resolution G-20-80, on December 2, 2020; and
- 1.2 **WHEREAS**, the 2020 Solutions for Congested Corridors Program Guidelines allow Commission staff to bring recommended amendments to the Commission for action; and
- 1.3 **WHEREAS**, the Commission adopted the updated 2020 Solutions for Congested Corridors Program, Resolution G-21-33, on March 24, 2021, and Resolution G-21-68, on December 8, 2021; and
- 1.4 **WHEREAS**, Commission staff, in consultation with staff from the California Department of Transportation and the City of Roseville, has identified changes to the Placer-Sacramento Gateway Corridor's Phase 1 South Placer Transit Project component, as reflected in the updated Program of Projects (Attachment B).
- 2.1 **NOW, THEREFORE BE IT RESOLVED**, that the Commission approves the program amendment to the 2020 Solutions for Congested Corridors Program, as reflected in Attachment B; and
- 2.2 **BE IT FURTHER RESOLVED**, that all provisions stipulated in G-20-80, G-21-33, and G-21-68 remain in effect; and
- 2.3 **BE IT FURTHER RESOLVED**, that Resolution G-21-68 is hereby amended.

Updated 2020 Solutions for Congested Corridors Program of Projects
Resolution G-22-40, Amending Resolution G-21-68
(1,000s)

County	Applicant Agency	Implementing Agency	Project Title	Project Description	Congested Corridor	Total Project Cost	Total Construction Cost	Total Requested Amount	Total Recommended Funding*	Fiscal Year
Los Angeles	Department of Transportation / Los Angeles County Metropolitan Transportation Authority		I-105 Express Lanes		Rt 105	\$ 689,121	\$ 626,036	\$ 150,000	\$ 150,000	
		Los Angeles County Metropolitan Transportation Authority	<i>I-105 Express Lanes - Construction</i>	Construct 58.4 miles of HOT lanes					\$ 150,000	2022-23
		Los Angeles County Metropolitan Transportation Authority	<i>I-105 Express Lanes - Roadside Toll Collection System (RTCS)</i>	Install 20 changeable message signs Install 38 close circuit television cameras Install 16 miles of fiber optics for communications					\$ -	2022-23
Marin	Department of Transportation / Transportation Authority of Marin	Caltrans	Marin Sonoma Narrows - Contract B7	Construct 9.5 miles of HOV lanes and other highway improvements Construct 0.75 miles of bicycle and pedestrian facilities	Rt 101	\$ 135,641	\$ 120,996	\$ 40,118	\$ 40,118	2021-22
Napa	Metropolitan Transportation Commission / Napa Valley Transportation Authority	Caltrans	Soscol Junction	Construct new interchange with roundabouts and elevated structure Construct Class I multi-use path	Rt 29 Rt 221	\$ 64,000	\$ 52,555	\$ 25,000	\$ 25,000	2021-22
Placer / Sacramento	Department of Transportation / Placer County Transportation Planning Agency / Sacramento Area Council of Governments		Placer-Sacramento Gateway - Phase I		Rt 80 Rt 65	\$ 135,100	\$ 121,888	\$ 67,075	\$ 67,075	
		Caltrans	<i>Auburn Boulevard Ramp Meter</i>	1 Freeway ramp meter, Citrus Heights					\$ 500	2021-22
		Citrus Heights	<i>Auburn Boulevard Complete Streets</i>	1 miles of complete streets improvements including bicycle and pedestrian facilities					\$ 2,860	2021-22
		Roseville	<i>Dry Creek Greenway</i>	Construct 2 miles of Class I multi-use trail					\$ 6,239	2021-22
		Sacramento County	<i>Watt Avenue Complete Streets</i>	4 miles of complete streets improvements including road rehabilitation, bicycle and pedestrian facilities					\$ 8,100	2022-23
		Sacramento Regional Transit District	<i>Watt/I-80 Light Rail Station</i>	1 Light Rail Station Improvement					\$ 7,937	2021-22
		Sacramento Regional Transit District	<i>Light Rail Modernization - Stations</i>	4 Light Rail Station Conversions					\$ 2,942	2021-22
		Caltrans	<i>I-80 Transit Reliability</i>	Construct 1.9 miles of auxiliary lanes					\$ 9,503	2021-22
		Roseville	<i>South Placer Transit</i>	5 new electric buses 5 express bus station improvements					\$ 6,000	2021-22
		Roseville	<i>South Placer Transit - Five Electric Buses</i>	5 new electric buses					\$ 4,705	2021-22
		Roseville	<i>South Placer Transit - Five Chargers</i>	5 express bus station improvements					\$ 1,295	2021-22
		Sacramento Regional Transit District	<i>Light Rail Modernization - Light Rail Vehicles</i>	8 new low-floor light rail vehicles					\$ 22,994	2021-22
San Bernardino	Department of Transportation / San Bernardino County Transportation Authority / Omnitrans		West Valley Connector Bus Rapid Transit		Rt 10	\$ 286,966	\$ 167,511	\$ 65,000	\$ 65,000	
		SBCTA	<i>Mainline Improvements</i>	Construct 21 new BRT Stations Construct 3.5 miles of new dedicated bus lanes 15.5 miles of enhanced BRT service					\$ 65,000	2021-22
		SBCTA	<i>Maintenance Facility (D/B Contract)</i>	Maintenance Facility					\$ -	2021-22
		SBCTA	<i>Vehicle Acquisition</i>	18 new zero-emission buses					\$ -	2021-22
San Francisco / Alameda	Department of Transportation / Bay Area Rapid Transit		Train Control Modernization Program		Rt 80	\$ 1,140,000	\$ 1,129,051	\$ 60,000	\$ 60,000	
		BART	<i>Switch Machine Cabling Project - BART Labor</i>	Cabling upgrades at 21 train control rooms 26 wayside interlocks and switches					\$ 41,800	2021-22
		BART	<i>Switch Machine Cabling Project - Procurement of Non-Revenue Equipment</i>	Procure on-rail equipment including: 5 hi-railers, 1 vac truck, 2 boom lifts, 2 scissor lifts					\$ 3,350	2021-22
		BART	<i>Switch Machine Cabling Project - Material Procurement</i>	Procure materials to replace train control and electrical equipment.					\$ -	2021-22
		BART	<i>Switch Machine Cabling Project - Services</i>	Quality assurance and control inspections and testing Vehicular/Pedestrian traffic management for construction					\$ -	2021-22
		BART	<i>MacArthur/Downtown Oakland Interlock Cabling Upgrade Contract</i>	Installation of new train control raceways and associated cables					\$ 14,850	2021-22
		BART	<i>Communications-based Train Control</i>	New communications-based train control system					\$ -	2021-22
Santa Cruz	Santa Cruz County Regional Transportation Commission		Watsonville - Santa Cruz Multimodal Corridor Program		Rt 1	\$ 150,568	\$ 136,360	\$ 82,201	\$ 92,807	
		Caltrans	<i>Contract #1 - 41st Avenue to Soquel Avenue Auxiliary Lanes, Bus on Shoulder and Chanticleer Bike/Ped Bridge</i>	Construct 2.75 miles of hybrid bus-on-shoulder/auxiliary lanes Construct 0.85 of auxiliary lanes Construct 2.7 miles of active transportation facilities and other improvements					\$ 23,507	2021-22
		Caltrans	<i>Contract #2 - State Park to Bay/Porter Auxiliary Lanes, Bus on Shoulders and Mar Vista Bike/Pedestrian Overcrossing</i>	Construct 3 miles of hybrid bus-on-shoulder/auxiliary lanes Construct 1.2 miles of auxiliary lanes Construct 2.9 miles of active transportation facilities and other improvements Construct 3.2 miles of soundwalls					\$ 52,837	2022-23
		Santa Cruz County	<i>Contract #3 - Soquel Drive Buffered Bike Lane and Congestion Mitigation Project</i>	Construct 5.1 miles of active transportation facilities and other improvements Adaptive traffic signal control/transit signal priority at 23 intersections					\$ 16,463	2022-23
						\$ 2,601,396	\$ 2,354,397	\$ 489,394	\$ 500,000	

Amendment (Existing Project) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					Date	03/21/2022 11:09:02
Programs <input type="checkbox"/> LPP-C <input type="checkbox"/> LPP-F <input type="checkbox"/> SCCC <input type="checkbox"/> TCEP <input type="checkbox"/> STIP <input checked="" type="checkbox"/> Other						
District	EA	Project ID	PPNO	Nominating Agency		
03			1535A	Caltrans HQ		
County	Route	PM Back	PM Ahead	Co-Nominating Agency		
Placer				Placer County Transportation Planning Agency, Sacramento		
				MPO	Element	
				SACOG	Mass Transit (MT)	
Project Manager/Contact			Phone	Email Address		
Mike Dour			916-746-1304	mdour@roseville.ca.us		

Project Title

PSGC Phase 1 - South Placer Transit - Five Electric Buses

Location (Project Limits), Description (Scope of Work)

In Placer and Sacramento counties. The Lincoln to Sacramento express bus service will begin in the City of Lincoln and then continue along the Highway 65 corridor with stops at the Galleria Mall, Sutter Hospital and Kaiser Hospital. The express bus service would then travel down Interstate 80 into Sacramento County and terminate at Sacramento Regional Transits Watt/I-80 light rail station. The light rail service would then enable passengers to travel to and from downtown Sacramento, the Railyards and other key destinations within Sacramento County. This new express bus service is expected to operate on weekdays every 30 minutes between approximately 6 a.m. and 9 p.m. The service will be provided using five (5) new 40' battery electric buses (4 buses and 1 spare).

Component	Implementing Agency
PA&ED	Placer County Transportation Planning Agency
PS&E	City of Roseville
Right of Way	City of Roseville
Construction	City of Roseville

Legislative Districts

Assembly:	6	Senate:	1	Congressional:	4
-----------	---	---------	---	----------------	---

Project Milestone	Existing	Proposed
Project Study Report Approved		
Begin Environmental (PA&ED) Phase	03/02/2020	03/02/2020
Circulate Draft Environmental Document Document Type CE	04/27/2020	04/27/2020
Draft Project Report	04/27/2020	04/27/2020
End Environmental Phase (PA&ED Milestone)	06/24/2020	06/24/2020
Begin Design (PS&E) Phase	07/01/2020	07/01/2020
End Design Phase (Ready to List for Advertisement Milestone)	04/02/2021	04/02/2021
Begin Right of Way Phase	06/01/2020	06/01/2020
End Right of Way Phase (Right of Way Certification Milestone)	12/31/2020	12/31/2020
Begin Construction Phase (Contract Award Milestone)	10/01/2021	06/01/2022
End Construction Phase (Construction Contract Acceptance Milestone)	06/30/2023	06/30/2023
Begin Closeout Phase	07/07/2023	07/07/2023
End Closeout Phase (Closeout Report)	09/29/2023	09/29/2023

Date 03/21/2022 11:09:02

Purpose and Need

To alleviate traffic congestion along Highway 65 and Interstate 80, improve air quality, provide mobility options and reduce energy consumption. Reducing congestion and improving mobility options will facilitate more economic development. Interstate 80 and Highway 65 in Placer County is one of the most congested corridors in the Sacramento Region. This corridor experiences traffic congestion in all directions several hours a day.

NHS Improvements

☒ YES ☐ NO

Roadway Class

NA

Reversible Lane Analysis

☐ YES ☒ NO

Inc. Sustainable Communities Strategy Goals

☒ YES ☐ NO

Reduce Greenhouse Gas Emissions

☒ YES ☐ NO

Project Outputs			
Category	Outputs	Unit	Total
Rail/ Multi-Modal	Rail cars/ transit vehicles	EA	5

Date 03/21/2022 11:09:02

Additional Information

The Placer-Sacramento Gateway Corridor Phase 1 improvements support the following goals and policies identified in the SACOG 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS):

Goal 1: Build vibrant places for today's and tomorrow's residents.

- Policy 1: Provide incentives, information, tools, technical assistance, and encouragement to support implementation of the Sacramento region's Sustainable Communities Strategy through:
 - o Revitalization of urban, suburban, and rural centers and corridors;
 - o Complete communities that include a balance of homes, jobs, services, amenities, and diverse transportation options; and
 - o Complete streets that provide safe, comfortable, and equitable facilities for people of all ages and abilities to walk, bike, and ride transit.
- Policy 2: Pursue funding opportunities that support the infrastructure improvements needed to support new housing and employment opportunities in existing urban, suburban, and rural communities.

Goal 2: Foster the next generation of mobility solutions.

- Policy 4: Pursue flexibility in state and federal funding sources to enable testing and implementation of innovative mobility solutions that are affordable, accessible, and reduce greenhouse gas emissions
- Policy 7: Support transit agencies and local governments looking to secure funds to improve the frequency, hours of service, and coverage of productive bus service (including bus rapid transit, express bus, and more frequent fixed-route service).
- Policy 8: Support more seamless travel through better traveler information for trip planning, reliable service and coordination between operators for transit, shared mobility and other first/last mile connections.

Goal 4: Build and maintain a safe, resilient, and multimodal transportation system

- Policy 19: Transit expansion, particularly light rail and other fixed infrastructure transit options, should be targeted at communities with supportive land use policies and development patterns that will generate transit ridership and improve the cost recovery rates for transit service.
- Policy 20: Prioritize cost effective safety improvements that will help the region eliminate fatal transportation related accidents.
- Policy 22: Invest in bicycle and pedestrian infrastructure to encourage healthy, active transportation trips and provide recreational opportunities for residents and visitors.
- Policy 23: Prioritize and incentivize transportation investments that benefit environmental justice communities.
- Policy 24: Invest in transportation improvements that improve access to major economic assets and job centers.
- Policy 25: Prioritize investments in transportation improvements that reduce greenhouse gas emissions and vehicle miles traveled.

The South Placer Transit Project will be delivered in two phases. The purchase of five electric buses is the first phase. This ePPR includes the benefits for the five chargers that are part of the second phase.

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
Congestion Reduction	LPPF, LPPC, SCCP	Project Area, Corridor, County, or Regionwide VMT per Capita and Total VMT	Total Miles	22,583,529	22,602,243	-18,714
			VMT per Capita	29.92	29.95	-0.03
	LPPF, LPPC, SCCP	Person Hours of Travel Time Saved	Person Hours	2,991,330	3,009,718	-18,388
			Hours per Capita	3.96	3.99	-0.03
	LPPF, LPPC, SCCP	Daily Vehicle Hours of Delay	Hours	8,281	8,331	-50
	Optional	Percent Change in Non-Single Occupancy Vehicle Travel	%	20.81	20.81	0
Throughput	Optional	Bicyclist/ Pedestrian Screen Line Counts	# of Bikes	195	100	95
			# of Pedestrians	450	230	220
	Optional	Peak Period Person Throughput by Applicable Mode	# of Persons	10,985	10,380	605
	Optional	Passengers Per Vehicle Service Hour	# of Passengers	102	96	6
System Reliability	LPPF, LPPC, SCCP	Peak Period Travel Time Reliability Index	Index	1.02	1.04	-0.02
	LPPF, LPPC, SCCP	Transit Service On-Time Performance	% "On-time"	97.8	94.5	3.3
Air Quality & GHG	LPPF, LPPC, SCCP, TCEP	Particulate Matter	PM 2.5 Tons	1,289.71	1,290	-0.29
			PM 10 Tons	1,204.72	1,205	-0.28
	LPPF, LPPC, SCCP, TCEP	Carbon Dioxide (CO2)	Tons	159,422,178	159,476,158	-53,980
	LPPF, LPPC, SCCP, TCEP	Volatile Organic Compounds (VOC)	Tons	21,338.83	21,348	-9.17
	LPPF, LPPC, SCCP, TCEP	Sulphur Dioxides (SOx)	Tons	1,568.45	1,569	-0.55
	LPPF, LPPC, SCCP, TCEP	Carbon Monoxide (CO)	Tons	488,100.71	488,276	-175.29
	LPPF, LPPC, SCCP, TCEP	Nitrogen Oxides (NOx)	Tons	117,294.04	117,339	-44.96
Safety	LPPF, LPPC, SCCP, TCEP	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries	Number	77.4	77.6	-0.2
	LPPF, LPPC, SCCP, TCEP	Number of Fatalities	Number	9.38	9.83	-0.45
	LPPF, LPPC, SCCP, TCEP	Fatalities per 100 Million VMT	Number	0.11	0.12	-0.01
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries	Number	159.52	163.8	-4.28
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries per 100 Million VMT	Number	1.94	1.99	-0.05
	Optional	Number of Property Damage Only and Non-Serious Injury Collisions	Number	1,966	2,090	-124
	Optional	Accident Cost Savings	Dollars	-95,700,000	0	-95,700,000
Accessibility	LPPF, LPPC, SCCP	Number of Jobs Accessible by Mode	Number	687,439	687,439	0

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
	LPPF, LPPC, SCCP	Number of Destinations Accessible by Mode	Number	833	833	0
	LPPF, LPPC, SCCP	Percent of Population Defined as Low Income or Disadvantaged Within 1/2 Mile of Rail Station, Ferry Terminal, or High-Frequency Bus Stop	%	71.8	70.5	1.3
Economic Development	LPPF, LPPC, SCCP, TCEP	Jobs Created (Direct and Indirect)	Number	1,461	0	1,461
Cost Effectiveness	LPPF, LPPC, SCCP, TCEP	Cost Benefit Ratio	Ratio	2.46	0	2.46

District	County	Route	EA	Project ID	PPNO
03	Placer				1535
Project Title					
PSGC Phase 1 - South Placer Transit - Five Electric Buses					

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)		10						10	Placer County Transportation Plannin
PS&E		50						50	City of Roseville
R/W SUP (CT)									City of Roseville
CON SUP (CT)									City of Roseville
R/W									City of Roseville
CON			11,340					11,340	City of Roseville
TOTAL		60	11,340					11,400	
Proposed Total Project Cost (\$1,000s)									Notes
E&P (PA&ED)		10						10	
PS&E		50						50	
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			10,045					10,045	
TOTAL		60	10,045					10,105	

Fund #1:	Local Funds - Local Transportation Funds (Committed)								Program Code
	Existing Funding (\$1,000s)								20.10.400.100
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)		10						10	Placer County Transportation Plannin
PS&E		50						50	
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			75					75	
TOTAL		60	75					135	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)		10						10	
PS&E		50						50	
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			75					75	
TOTAL		60	75					135	

Fund #2:	Local Funds - Private Funds (Committed)								Program Code
Existing Funding (\$1,000s)									20.10.400.100
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									City of Roseville Local operating funds to support startup of new transit services for three years.
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			900					900	
TOTAL			900					900	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			900					900	
TOTAL			900					900	
Fund #3:	CMAQ - Congestion Mitigation (Committed)								Program Code
Existing Funding (\$1,000s)									20.30.010.820
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									City of Roseville
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			1,101					1,101	
TOTAL			1,101					1,101	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			1,101					1,101	
TOTAL			1,101					1,101	

Fund #4:	Other State - Low Carbon Transit Operations Program (LCTOP) (Committed)								Program Code
Existing Funding (\$1,000s)									20.30.207.811
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									City of Roseville
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			1,689					1,689	
TOTAL			1,689					1,689	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			1,689					1,689	
TOTAL			1,689					1,689	
Fund #5:	Local Funds - Traffic Impact Fees (Committed)								Program Code
Existing Funding (\$1,000s)									20.10.400.100
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									City of Roseville
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			573					573	
TOTAL			573					573	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			573					573	
TOTAL			573					573	

Fund #6:	Local Funds - Fare Revenues (Committed)								Program Code
Existing Funding (\$1,000s)									20.10.400.100
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									City of Roseville
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			1,002					1,002	
TOTAL			1,002					1,002	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			1,002					1,002	
TOTAL			1,002					1,002	
Fund #7:	State SB1 SCCP - Solution for Congested Corridors Program (Committed)								Program Code
Existing Funding (\$1,000s)									30.10.030.100
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			6,000					6,000	
TOTAL			6,000					6,000	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			4,705					4,705	
TOTAL			4,705					4,705	

Amendment (Existing Project) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					Date	03/21/2022 11:13:05
Programs <input type="checkbox"/> LPP-C <input type="checkbox"/> LPP-F <input type="checkbox"/> SCCP <input type="checkbox"/> TCEP <input type="checkbox"/> STIP <input checked="" type="checkbox"/> Other						
District	EA	Project ID	PPNO	Nominating Agency		
03			1535b	Caltrans HQ		
County	Route	PM Back	PM Ahead	Co-Nominating Agency		
Placer				Placer County Transportation Planning Agency, Sacramento		
				MPO	Element	
				SACOG	Mass Transit (MT)	
Project Manager/Contact			Phone	Email Address		
Mike Dour			916-746-1304	mdour@roseville.ca.us		

Project Title

PSGC Phase 1 - South Placer Transit - Five Chargers

Location (Project Limits), Description (Scope of Work)

In Placer and Sacramento counties. The Lincoln to Sacramento express bus service will begin in the City of Lincoln and then continue along the Highway 65 corridor with stops at the Galleria Mall, Sutter Hospital and Kaiser Hospital. The express bus service would then travel down Interstate 80 into Sacramento County and terminate at Sacramento Regional Transits Watt/I-80 light rail station. The light rail service would then enable passengers to travel to and from downtown Sacramento, the Railyards and other key destinations within Sacramento County. This new express bus service is expected to operate on weekdays every 30 minutes between approximately 6 a.m. and 9 p.m. The service will be provided using five (5) new chargers (3 depot chargers and 2 on-route chargers) to support the battery-electric buses being purchased as part of the parent project.

Component	Implementing Agency
PA&ED	Placer County Transportation Planning Agency
PS&E	City of Roseville
Right of Way	City of Roseville
Construction	City of Roseville

Legislative Districts

Assembly:	6	Senate:	1	Congressional:	4
-----------	---	---------	---	----------------	---

Project Milestone	Existing	Proposed
Project Study Report Approved		
Begin Environmental (PA&ED) Phase	03/02/2020	03/02/2020
Circulate Draft Environmental Document Document Type CE	04/27/2020	04/27/2020
Draft Project Report	04/27/2020	04/27/2020
End Environmental Phase (PA&ED Milestone)	06/24/2020	06/24/2020
Begin Design (PS&E) Phase	07/01/2020	07/01/2020
End Design Phase (Ready to List for Advertisement Milestone)	04/02/2021	04/02/2021
Begin Right of Way Phase	06/01/2020	06/01/2020
End Right of Way Phase (Right of Way Certification Milestone)	12/31/2020	12/31/2020
Begin Construction Phase (Contract Award Milestone)	10/01/2021	03/23/2023
End Construction Phase (Construction Contract Acceptance Milestone)	06/30/2023	09/28/2023
Begin Closeout Phase	07/07/2023	12/28/2023
End Closeout Phase (Closeout Report)	09/29/2023	02/28/2024

Date 03/21/2022 11:13:05

Purpose and Need

To alleviate traffic congestion along Highway 65 and Interstate 80, improve air quality, provide mobility options and reduce energy consumption. Reducing congestion and improving mobility options will facilitate more economic development. Interstate 80 and Highway 65 in Placer County is one of the most congested corridors in the Sacramento Region. This corridor experiences traffic congestion in all directions several hours a day.

NHS Improvements

☒ YES ☐ NO

Roadway Class

NA

Reversible Lane Analysis

☐ YES ☒ NO

Inc. Sustainable Communities Strategy Goals

☒ YES ☐ NO

Reduce Greenhouse Gas Emissions

☒ YES ☐ NO

Project Outputs			
Category	Outputs	Unit	Total
Rail/ Multi-Modal	Station improvements	EA	5

Date 03/21/2022 11:13:05

Additional Information

The Placer-Sacramento Gateway Corridor Phase 1 improvements support the following goals and policies identified in the SACOG 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS):

Goal 1: Build vibrant places for today's and tomorrow's residents.

- Policy 1: Provide incentives, information, tools, technical assistance, and encouragement to support implementation of the Sacramento region's Sustainable Communities Strategy through:
 - o Revitalization of urban, suburban, and rural centers and corridors;
 - o Complete communities that include a balance of homes, jobs, services, amenities, and diverse transportation options; and
 - o Complete streets that provide safe, comfortable, and equitable facilities for people of all ages and abilities to walk, bike, and ride transit.
- Policy 2: Pursue funding opportunities that support the infrastructure improvements needed to support new housing and employment opportunities in existing urban, suburban, and rural communities.

Goal 2: Foster the next generation of mobility solutions.

- Policy 4: Pursue flexibility in state and federal funding sources to enable testing and implementation of innovative mobility solutions that are affordable, accessible, and reduce greenhouse gas emissions
- Policy 7: Support transit agencies and local governments looking to secure funds to improve the frequency, hours of service, and coverage of productive bus service (including bus rapid transit, express bus, and more frequent fixed-route service).
- Policy 8: Support more seamless travel through better traveler information for trip planning, reliable service and coordination between operators for transit, shared mobility and other first/last mile connections.

Goal 4: Build and maintain a safe, resilient, and multimodal transportation system

- Policy 19: Transit expansion, particularly light rail and other fixed infrastructure transit options, should be targeted at communities with supportive land use policies and development patterns that will generate transit ridership and improve the cost recovery rates for transit service.
- Policy 20: Prioritize cost effective safety improvements that will help the region eliminate fatal transportation related accidents.
- Policy 22: Invest in bicycle and pedestrian infrastructure to encourage healthy, active transportation trips and provide recreational opportunities for residents and visitors.
- Policy 23: Prioritize and incentivize transportation investments that benefit environmental justice communities.
- Policy 24: Invest in transportation improvements that improve access to major economic assets and job centers.
- Policy 25: Prioritize investments in transportation improvements that reduce greenhouse gas emissions and vehicle miles traveled.

The South Placer Transit Project will be delivered in two phases. The purchase of five electric buses is the first phase and the purchase of five chargers that are part of this ePPR is the second phase. The benefits for this ePPR are included in the parent project (purchase of five buses).

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
Air Quality & GHG	LPPF, LPPC, SCCP, TCEP	Particulate Matter	PM 2.5 Tons	0	0	0
			PM 10 Tons	0	0	0

District	County	Route	EA	Project ID	PPNO
03	Placer				1535b
Project Title					
PSGC Phase 1 - South Placer Transit - Five Chargers					

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)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Total Project Cost (\$1,000s)									Notes
E&P (PA&ED)									
PS&E			137					137	
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			1,295					1,295	
TOTAL			1,432					1,432	

Fund #1:	State SB1 SCCP - Solution for Congested Corridors Program (Committed)								Program Code
Existing Funding (\$1,000s)									30.10.030.100
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			1,295					1,295	
TOTAL			1,295					1,295	

Fund #2:	Local Funds - Developer Fees (Committed)								Program Code
Existing Funding (\$1,000s)									
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									South Placer Regional Transportation
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E			137					137	
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL			137					137	

STATE OF CALIFORNIA - CALIFORNIA TRANSPORTATION COMMISSION
CTC-0001 (NEW 07/2018)

ROAD REPAIR AND ACCOUNTABILITY ACT OF 2017

PROJECT BASELINE AGREEMENT

Placer-Sacramento Gateway - Phase 1

Resolution SCCP-P-2021-05B
(will be completed by CTC)

1. FUNDING PROGRAM

- ☐ Active Transportation Program
- ☐ Local Partnership Program (Competitive)
- ☒ Solutions for Congested Corridors Program
- ☐ State Highway Operation and Protection Program
- ☐ Trade Corridor Enhancement Program

2. PARTIES AND DATE

- 2.1 This Project Baseline Agreement (Agreement) for the *Placer-Sacramento Gateway - Phase 1*, effective on, June 23, 2021 (will be completed by CTC), is made by and between the California Transportation Commission (Commission), the California Department of Transportation (Caltrans), the Project Applicant, *Caltrans, PCTPA, and SACOG*, and the Implementing Agency, *SacRT, Citrus Heights, Roseville, Sacramento County, Caltrans*, sometimes collectively referred to as the "Parties".

3. RECITAL

- 3.2 Whereas at its December 2, 2020 meeting the Commission approved the Solutions for Congested Corridors Program, and included in this program of projects the *Placer-Sacramento Gateway - Phase 1*, the parties are entering into this Project Baseline Agreement to document the project cost, schedule, scope and benefits, as detailed on the Project Programming Request Form attached hereto as Exhibit A and the Project Report attached hereto as Exhibit B, as the baseline for project monitoring by the Commission.
- 3.3 The undersigned Project Applicant certifies that the funding sources cited are committed and expected to be available; the estimated costs represent full project funding; and the scope and description of benefits is the best estimate possible.

4. GENERAL PROVISIONS

The Project Applicant, Implementing Agency, and Caltrans agree to abide by the following provisions:

- 4.1 To meet the requirements of the Road Repair and Accountability Act of 2017 (Senate Bill [SB] 1, Chapter 5, Statutes of 2017) which provides the first significant, stable, and on-going increase in state transportation funding in more than two decades.
- 4.2 To adhere, as applicable, to the provisions of the Commission:
- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the Active Transportation Program", dated
- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the Local Partnership Program", dated
- ☒ Resolution G-20-80, "Adoption of Program of Projects for the Solutions for Congested Corridors Program", dated December 2, 2020
- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the State Highway Operation and Protection Program", dated
- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the Trade Corridor Enhancement Program", dated

- 4.3 All signatories agree to adhere to the Commission's Solutions for Congested Corridors Program, Guidelines. Any conflict between the programs will be resolved at the discretion of the Commission.
- 4.4 All signatories agree to adhere to the Commission's SB 1 Accountability and Transparency Guidelines and policies, and program and project amendment processes.
- 4.5 The implementing agencies, as identified in Section 5.3, agree to secure funds for any additional costs of the project.
- 4.6 The implementing agencies, as identified in Section 5.3, agree to report to Caltrans on a quarterly basis; after July 2019, reports will be on a semi-annual basis on the progress made toward the implementation of the project, including scope, cost, schedule, outcomes, and anticipated benefits.
- 4.7 Caltrans agrees to prepare program progress reports on a quarterly basis; after July 2019, reports will be on a semi-annual basis and include information appropriate to assess the current state of the overall program and the current status of each project identified in the program report.
- 4.8 The implementing agencies, as identified in Section 5.3, agree to submit a timely Completion Report and Final Delivery Report as specified in the Commission's SB 1 Accountability and Transparency Guidelines.
- 4.9 All signatories agree to maintain and make available to the Commission and/or its designated representative, all work related documents, including without limitation engineering, financial and other data, and methodologies and assumptions used in the determination of project benefits during the course of the project, and retain those records for four years from the date of the final closeout of the project. Financial records will be maintained in accordance with Generally Accepted Accounting Principles.
- 4.10 The Transportation Inspector General of the Independent Office of Audits and Investigations has the right to audit the project records, including technical and financial data, of the Department of Transportation, the Project Applicant, the Implementing Agency, and any consultant or sub-consultants at any time during the course of the project and for four years from the date of the final closeout of the project, therefore all project records shall be maintained and made available at the time of request. Audits will be conducted in accordance with Generally Accepted Government Auditing Standards.

5. SPECIFIC PROVISIONS AND CONDITIONS

5.1 Project Schedule and Cost

See Project Programming Request Form, attached as Exhibit A.

5.2 Project Scope

See Project Report or equivalent, attached as Exhibit B. At a minimum, the attachment shall include the cover page, evidence of approval, executive summary, and a link to or electronic copy of the full document.

5.3 Other Project Specific Provisions and Conditions

- ☐ The state will not cover costs in the event of a cost overrun.

Project	PPNO	Applicant Agencies	Implementing Agency
I-80 Auburn Blvd Ramp Meter	5147	Caltrans, SACOG	Caltrans
I-80 Transit Reliability	5101	Caltrans, PCTPA	Caltrans
Auburn Blvd Complete Streets – Phase 2	1531	Caltrans, SACOG	City of Citrus Heights
Dry Creek Greenway East	1526	Caltrans, PCTPA	City of Roseville
Watt Avenue Complete Streets – Phase 1	1533	Caltrans, SACOG	Sacramento County
South Placer Transit	1535	Caltrans, PCTPA	City of Roseville
Watt/I-80 Light Rail Station	1534	Caltrans, SACOG	SacRT
Light Rail Modernization LRVs	2201	Caltrans, SACOG	SacRT
Light Rail Modernization Stations Phase 2	1532A	Caltrans, SACOG	SacRT

Attachments:

Exhibit A: Project Programming Request Form

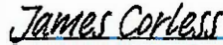
Exhibit B: Project Report

Project Baseline Agreement

SIGNATURE PAGE
TO
PROJECT BASELINE AGREEMENT

Placer-Sacramento Gateway - Phase I

Resolution SCCP-P-2021-05B



James Corless (Apr 26, 2021 11:33 PDT)

James Corless
Executive Director
Sacramento Area Council of Governments
Project Applicant

Apr 26, 2021

Date



Michael W. Lujan
Executive Director
Placer County Transportation Planning Agency
Project Applicant

4/8/2021

Date

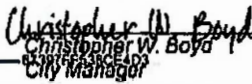


Amaret S. Benipal
District Director
California Department of Transportation
Project Applicant and Implementing Agency

4/29/2021

Date

DocuSigned by:



Christopher W. Boyd
City Manager
City of Citrus Heights
Implementing Agency

4/23/2021

Date



Dominick Casey
City Manager
City of Roseville
Implementing Agency

4/26/2021

Date



Ron E. Vicari
Director, Department of Transportation
Sacramento County
Implementing Agency

4/22/2021

Date



Henry Li
General Manager/CEO
Sacramento Regional Transit District
Implementing Agency

4/27/2021

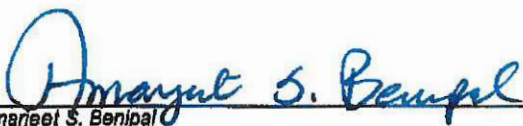
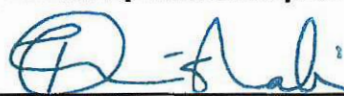

Date

2:30PM

SIGNATURE PAGE
TO
PROJECT BASELINE AGREEMENT

Placer-Sacramento Gateway - Phase 1

Resolution SCCP-P-2021-05B

 Amarjeet S. Benipal District Director California Department of Transportation	<u>4/29/2021</u> Date
 Toks Omlshakin Director California Department of Transportation	<u>4/17/21</u> Date
 Mitchell Weiss Executive Director California Transportation Commission	<u>08/17/22</u> Date

Amendment (Existing Project) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					Date	06/10/2021 17:20:46
Programs <input type="checkbox"/> LPP-C <input type="checkbox"/> LPP-F <input type="checkbox"/> SCCP <input type="checkbox"/> TCEP <input type="checkbox"/> STIP <input type="checkbox"/> Other						
District	EA	Project ID	PPNO	Nominating Agency		
03			1531	Caltrans HQ		
County	Route	PM Back	PM Ahead	Co-Nominating Agency		
Sacramento	H40			Sacramento Area Council of Governments, Placer County Tr		
				MPO	Element	
				SACOG	Local Assistance	
Project Manager/Contact			Phone	Email Address		
Leslie Blomquist			916-727-4770	lblomquist@citrusheights.net		

Project Title

PSGC Phase 1 - Auburn Boulevard Complete Streets

Location (Project Limits), Description (Scope of Work)

In the city of Citrus Heights, on Auburn Boulevard between Oak Grove Avenue north to Orlando Avenue (City of Roseville), connection to the Louis-Orlando Transit Station. This project will reconstruct 4,400LF of this aging, vehicle-oriented corridor. Project will construct new curb, gutter, sidewalk, bicycle lanes, transit stop access and amenity upgrades, traffic signal upgrades, decorative streets lights, landscaped raised medians, drainage improvements, landscaping improvements and a new gateway traffic signal near the north City limit.

Component	Implementing Agency
PA&ED	City of Citrus Heights
PS&E	City of Citrus Heights
Right of Way	City of Citrus Heights
Construction	City of Citrus Heights

Legislative Districts

Assembly: 4 Senate: 8 Congressional: 7

Project Milestone	Existing	Proposed
Project Study Report Approved		
Begin Environmental (PA&ED) Phase	11/12/2014	11/12/2014
Circulate Draft Environmental Document Document Type (ND/MND)/CE	10/06/2015	10/06/2015
Draft Project Report	11/03/2015	11/03/2015
End Environmental Phase (PA&ED Milestone)	12/07/2015	12/07/2015
Begin Design (PS&E) Phase	06/24/2016	06/24/2016
End Design Phase (Ready to List for Advertisement Milestone)	08/30/2021	08/30/2021
Begin Right of Way Phase	06/24/2016	06/24/2016
End Right of Way Phase (Right of Way Certification Milestone)	04/22/2021	09/30/2021
Begin Construction Phase (Contract Award Milestone)	04/12/2022	12/08/2022
End Construction Phase (Construction Contract Acceptance Milestone)	12/31/2023	01/23/2025
Begin Closeout Phase	03/15/2024	03/15/2025
End Closeout Phase (Closeout Report)	09/30/2024	09/30/2025

Date 06/10/2021 17:20:46

Purpose and Need

The Project will address deficiencies in the existing infrastructure causing obstacles for pedestrians, bicyclists, and public transit riders attempting to navigate Auburn Boulevard between Antelope Road and Orlando Avenue (directly adjacent to Louis Orlando Transit Center in City of Roseville). The project area currently (1) lacks bike routes, (2) poses obstacles for pedestrians due to the location of utility equipment on the sidewalks, (3) has very limited transit stop amenities, and (4) requires operational improvements along the roadway to improve safety for active transportation users as well as vehicle traffic. Auburn Boulevard generally runs parallel to Interstate 80 in Sacramento County and as such is it a regional transportation corridor for commuters as well as those accessing medical and other services in Roseville. The transit station at Louis-Orlando (northern limits of project) also has a bike-link program for bike rentals. The Project completes a multi-phased regeneration project transforming the existing substandard infrastructure into a complete street.

NHS Improvements	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Roadway Class 1	Reversible Lane Analysis	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Inc. Sustainable Communities Strategy Goals	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Reduce Greenhouse Gas Emissions	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	

Project Outputs			
Category	Outputs	Unit	Total
ADA Improvements	Install accessible pedestrian signal	EA	14
Active Transportation	Crosswalk	EA	5
ADA Improvements	Repair existing sidewalk	LF	5,200
Active Transportation	Pedestrian/Bicycle facilities miles constructed	Miles	0.99
ADA Improvements	Repair/upgrade curb ramp	EA	33
ADA Improvements	New curb ramp installed	EA	13
Operational Improvement	Intersection / Signal improvements	EA	5

Date 06/10/2021 17:20:46

Additional Information

This project is part of the Sacramento-Placer Gateway Project Phase 1 SCCP application.

The Placer-Sacramento Gateway Corridor Phase 1 improvements support the following goals and policies identified in the SACOG 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS):

Goal 1: Build vibrant places for today's and tomorrow's residents.

- Policy 1: Provide incentives, information, tools, technical assistance, and encouragement to support implementation of the Sacramento region's Sustainable Communities Strategy through:
 - o Revitalization of urban, suburban, and rural centers and corridors;
 - o Complete communities that include a balance of homes, jobs, services, amenities, and diverse transportation options; and
 - o Complete streets that provide safe, comfortable, and equitable facilities for people of all ages and abilities to walk, bike, and ride transit.
- Policy 2: Pursue funding opportunities that support the infrastructure improvements needed to support new housing and employment opportunities in existing urban, suburban, and rural communities.

Goal 2: Foster the next generation of mobility solutions.

- Policy 4: Pursue flexibility in state and federal funding sources to enable testing and implementation of innovative mobility solutions that are affordable, accessible, and reduce greenhouse gas emissions
- Policy 7: Support transit agencies and local governments looking to secure funds to improve the frequency, hours of service, and coverage of productive bus service (including bus rapid transit, express bus, and more frequent fixed-route service).
- Policy 8: Support more seamless travel through better traveler information for trip planning, reliable service and coordination between operators for transit, shared mobility and other first/last mile connections.

Goal 4: Build and maintain a safe, resilient, and multimodal transportation system

- Policy 19: Transit expansion, particularly light rail and other fixed infrastructure transit options, should be targeted at communities with supportive land use policies and development patterns that will generate transit ridership and improve the cost recovery rates for transit service.
- Policy 20: Prioritize cost effective safety improvements that will help the region eliminate fatal transportation related accidents.
- Policy 22: Invest in bicycle and pedestrian infrastructure to encourage healthy, active transportation trips and provide recreational opportunities for residents and visitors.
- Policy 23: Prioritize and incentivize transportation investments that benefit environmental justice communities.
- Policy 24: Invest in transportation improvements that improve access to major economic assets and job centers.
- Policy 25: Prioritize investments in transportation improvements that reduce greenhouse gas emissions and vehicle miles traveled.

The timeframe for construction was lengthened to incorporate both construction phases due to additional funding award from SACOG which will allow completion in one construction contract without breaking up into phases. In addition, City is working with SMUD to finalize utility work and thus ROW completed delayed. City still planning to request allocation in June 2022.

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
Congestion Reduction	LPPF, LPPC, SCCP	Project Area, Corridor, County, or Regionwide VMT per Capita and Total VMT	Total Miles	22,583,529	22,602,243	-18,714
			VMT per Capita	29.92	29.95	-0.03
	LPPF, LPPC, SCCP	Person Hours of Travel Time Saved	Person Hours	2,991,330	3,009,718	-18,388
			Hours per Capita	3.96	3.99	-0.03
	LPPF, LPPC, SCCP	Daily Vehicle Hours of Delay	Hours	8,281	8,331	-50
	Optional	Percent Change in Non-Single Occupancy Vehicle Travel	%	20.81	20.81	0
	Optional	Per Capita and Total Person Hours of Delay per Year	Person Hours	2,991,330	3,009,718	-18,388
			Hours per Capita	3.96	3.99	-0.03
Throughput	Optional	Bicyclist/ Pedestrian Screen Line Counts	# of Bikes	450	230	220
			# of Pedestrians	195	100	95
	Optional	Peak Period Person Throughput by Applicable Mode	# of Persons	10,985	10,380	605
	Optional	Passengers Per Vehicle Service Hour	# of Passengers	102	96	6
System Reliability	LPPF, LPPC, SCCP	Peak Period Travel Time Reliability Index	Index	1.02	1.04	-0.02
	LPPF, LPPC, SCCP	Transit Service On-Time Performance	% "On-time"	97.8	94.5	3.3
Air Quality & GHG	LPPF, LPPC, SCCP, TCEP	Particulate Matter	PM 2.5 Tons	1,204.72	1,205	-0.28
			PM 10 Tons	1,289.71	1,290	-0.29
	LPPF, LPPC, SCCP, TCEP	Carbon Dioxide (CO2)	Tons	159,422,178	159,476,158	-53,980
	LPPF, LPPC, SCCP, TCEP	Volatile Organic Compounds (VOC)	Tons	21,338.83	21,348	-9.17
	LPPF, LPPC, SCCP, TCEP	Sulphur Dioxides (SOx)	Tons	1,568.45	1,569	-0.55
	LPPF, LPPC, SCCP, TCEP	Carbon Monoxide (CO)	Tons	488,100.71	488,276	-175.29
	LPPF, LPPC, SCCP, TCEP	Nitrogen Oxides (NOx)	Tons	117,294.04	117,339	-44.96
Safety	LPPF, LPPC, SCCP, TCEP	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries	Number	77.4	77.6	-0.2
	LPPF, LPPC, SCCP, TCEP	Number of Fatalities	Number	9.38	9.83	-0.45
	LPPF, LPPC, SCCP, TCEP	Fatalities per 100 Million VMT	Number	0.11	0.12	-0.01
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries	Number	159.52	163.8	-4.28
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries per 100 Million VMT	Number	1.94	1.99	-0.05
	Optional	Number of Property Damage Only and Non-Serious Injury Collisions	Number	1,966	2,090	-124
	Optional	Accident Cost Savings	Dollars	-95,700,000	0	-95,700,000

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
Accessibility	LPPF, LPPC, SCCP	Number of Jobs Accessible by Mode	Number	687,439	687,439	0
	LPPF, LPPC, SCCP	Number of Destinations Accessible by Mode	Number	360	360	0
	LPPF, LPPC, SCCP	Percent of Population Defined as Low Income or Disadvantaged Within 1/2 Mile of Rail Station, Ferry Terminal, or High-Frequency Bus Stop	%	71.8	70.5	1.3
Economic Development	LPPF, LPPC, SCCP, TCEP	Jobs Created (Direct and Indirect)	Number	1,461	0	1,461
Cost Effectiveness	LPPF, LPPC, SCCP, TCEP	Cost Benefit Ratio	Ratio	2.46	0	2.46

District	County	Route	EA	Project ID	PPNO
03	Sacramento	H40			1531
Project Title					
PSGC Phase 1 - Auburn Boulevard Complete Streets					

Existing Total Project Cost (\$1,000s)									Implementing Agency
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	
E&P (PA&ED)									City of Citrus Heights
PS&E	1,528							1,528	City of Citrus Heights
R/W SUP (CT)									City of Citrus Heights
CON SUP (CT)									City of Citrus Heights
R/W	2,990							2,990	City of Citrus Heights
CON		12,867						12,867	City of Citrus Heights
TOTAL	4,518	12,867						17,385	
Proposed Total Project Cost (\$1,000s)									Notes
E&P (PA&ED)									
PS&E	1,528							1,528	
R/W SUP (CT)									
CON SUP (CT)									
R/W	2,990							2,990	
CON		12,867		4,056	4,944			21,867	
TOTAL	4,518	12,867		4,056	4,944			26,385	

Fund #1:	CMAQ - Congestion Mitigation (Committed)								Program Code
	Existing Funding (\$1,000s)								20.30.010.820
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									Sacramento Area Council of Governm
PS&E	1,353							1,353	
R/W SUP (CT)									
CON SUP (CT)									
R/W	2,647							2,647	
CON									
TOTAL	4,000							4,000	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E	1,353							1,353	
R/W SUP (CT)									
CON SUP (CT)									
R/W	2,647							2,647	
CON									
TOTAL	4,000							4,000	

Fund #2:	Local Funds - Agency (Committed)								Program Code
Existing Funding (\$1,000s)									20.10.400.100
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									City of Citrus Heights
PS&E	175							175	
R/W SUP (CT)									
CON SUP (CT)									
R/W	343							343	
CON									
TOTAL	518							518	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E	175							175	
R/W SUP (CT)									
CON SUP (CT)									
R/W	343							343	
CON									
TOTAL	518							518	
Fund #3:	RSTP - STP Local (Committed)								Program Code
Existing Funding (\$1,000s)									20.30.010.810
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									Sacramento Area Council of Governm Regional Funding Program
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		4,000						4,000	
TOTAL		4,000						4,000	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		4,000						4,000	
TOTAL		4,000						4,000	

Fund #4:	State SB1 ATP - Active Transportation Program - SB1 (Committed)								Program Code
Existing Funding (\$1,000s)									20.30.720.100
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									ATP Grant Funds
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		1,525						1,525	
TOTAL		1,525						1,525	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		1,525						1,525	
TOTAL		1,525						1,525	
Fund #5:	Local Funds - Agency (Committed)								Program Code
Existing Funding (\$1,000s)									20.10.400.100
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									City of Citrus Heights local funding for non-ATP eligible construction including utility undergrounding; included in approved CIP + additional 82k in local funds (4,482,000 total)
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		4,482						4,482	
TOTAL		4,482						4,482	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		4,482						4,482	
TOTAL		4,482						4,482	

Fund #6:	State SB1 SCCP - Solution for Congested Corridors Program (Committed)								Program Code
Existing Funding (\$1,000s)									20.30.210.350
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									SCCP Phase 1 -Auburn Boulevard Complete Streets funding request
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		2,860						2,860	
TOTAL		2,860						2,860	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		2,860						2,860	
TOTAL		2,860						2,860	
Fund #7:	Other Fed - TRANSPORTATION IMPROVEMENTS (Uncommitted)								Program Code
Existing Funding (\$1,000s)									
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									Sacramento Area Council of Governm
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									9M from the 2021 SACOG Regional Funding program, (approved by SACOG 04/15/21). These funds, along with the STA SGIP funds noted in Fund 8, allow the project to bid in one construction phase.
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON				3,380	4,944			8,324	
TOTAL				3,380	4,944			8,324	

Fund #8:	Other State - STA Smart Growth Program (Uncommitted)								Program Code
Existing Funding (\$1,000s)									
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									Sacramento Area Council of Governm
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									Included in SACOG 20/21 Funding award- STA Smart Growth Incentive Program (SGIP) Funds; along with 9M in Fund 7, this new funding allows construction to bid in one phase.
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON				676				676	
TOTAL				676				676	

Complete this page for amendments only					Date 06/10/2021 17:20:46
District	County	Route	EA	Project ID	PPNO
03	Sacramento	H40			1531

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 for the delay, 2) cost increase related to the delay, and 3) how cost increase will be funded

Other Significant Information

SECTION 2 - For SB1 Project Only

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

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

SECTION 3 - All Projects

Attachments

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

Amendment (Existing Project) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					Date	01/15/2021 15:37:19	
Programs		<input type="checkbox"/> LPP-C	<input type="checkbox"/> LPP-F	<input checked="" type="checkbox"/> SCCP	<input type="checkbox"/> TCEP	<input type="checkbox"/> STIP	<input type="checkbox"/> Other
District	EA	Project ID	PPNO	Nominating Agency			
03	L2364	CML5182058	1526	Caltrans HQ			
County	Route	PM Back	PM Ahead	Co-Nominating Agency			
Placer				Sacramento Area Council of Governments, Placer County Tr			
				MPO	Element		
				SACOG	Local Assistance		
Project Manager/Contact			Phone	Email Address			
Michael Dour			916-746-1304	mdour@roseville.ca.us			

Project Title

PSGC Phase 1 - Dry Creek Greenway

Location (Project Limits), Description (Scope of Work)

The project area extends along Dry, Cirby and Linda Creeks from Riverside Avenue to Rocky Ridge Drive in south Roseville and includes undercrossings of I- 80 and Sunrise Avenue as it traverses the older Cherry Glen, Hillcrest, Cirby Side, Meadow Oaks and Sierra Gardens neighborhoods. The project begins at the existing Saugstad Park trail at Darling Way and extends to the existing Maidu Park Trail at Rocky Ridge Drive, closing trail gaps, removing active transportation barriers and resulting in an interconnected trail system more than 10 miles long. The project includes: 2 miles of Class I paved multi-use trail, 3 new bicycle/pedestrian bridges, 3 new roadway undercrossings at I-80, Darling Way and Sunrise Avenue; a trailhead parking area; and the installation of safety features and trail amenities, including bike racks, benches, lighting and video surveillance.

Component	Implementing Agency
PA&ED	City of Roseville
PS&E	City of Roseville
Right of Way	City of Roseville
Construction	City of Roseville

Legislative Districts

Assembly:	6	Senate:	4	Congressional:	4
-----------	---	---------	---	----------------	---

Project Milestone	Existing	Proposed
Project Study Report Approved	03/31/2010	
Begin Environmental (PA&ED) Phase		03/15/2012
Circulate Draft Environmental Document	Document Type EIR/CE	04/13/2018
Draft Project Report		04/13/2018
End Environmental Phase (PA&ED Milestone)		12/31/2020
Begin Design (PS&E) Phase		02/28/2020
End Design Phase (Ready to List for Advertisement Milestone)		10/25/2021
Begin Right of Way Phase		02/28/2020
End Right of Way Phase (Right of Way Certification Milestone)		08/23/2021
Begin Construction Phase (Contract Award Milestone)		03/31/2022
End Construction Phase (Construction Contract Acceptance Milestone)		03/31/2024
Begin Closeout Phase		04/01/2024
End Closeout Phase (Closeout Report)		12/31/2024

Date 01/15/2021 15:37:19

Purpose and Need

The project provides a safe, convenient, and highly connected active transportation route that is anticipated to increase the number of persons that walk and bicycle in the city and reduce congestion on the surrounding vehicle transportation network, including I-80. Roseville is home to 130,000 residents, with approximately 32,000 people living within one mile of the project boundary. The project provides a new multi-use trail in area of the city where roads lack bike lanes, sidewalks are limited, and Interstate 80 creates a barrier between neighborhoods and destinations. By creating a new trail and removing barriers to travel, the project will create increased biking and walking opportunities for transportation and recreational purposes. The Dry Creek Greenway East trail will provide connections to residential neighborhoods, schools, businesses, parks, open space, and transit. The new trail has the opportunity to relieve congestion made by short localized trips on the roadway and freeway network, including I-80, by shifting those trips to biking and walking. Replacing vehicular trips with biking and walking has many benefits, including reduced vehicle emissions, improved air quality, and improved physical and mental health.

This trail serves as an important connection within the local and regional trail system, providing connections to other trails and to a range of surrounding destinations. The project closes gaps in the trail system and links four existing trails that will result in over 10 miles of an interconnected trail system. Trail connections at key locations will facilitate equitable access to disadvantaged communities along the trail corridor. The project links the disadvantaged Cherry Glen and Sierra Gardens neighborhoods that are bisected by I-80 to parks, schools, civic uses, employment, and transit along the length of the interconnected trail system. In coordination with the project, the City of Roseville plans to expand the City’s Safe Routes to School Program at two elementary schools, one middle school, and one high school that will utilize the new trail. The education and encouragement of this program is anticipated to contribute to an increase the number of biking and walking trips as a result of this project. Additionally, the trail provides important regional connections as it is part of a series of existing and planned trails that will form a 70-mile long continuous paved loop trail around the greater South Placer/Sacramento area, and is part of the Cross State bikeway “Golden Pedal Route”.

Together with supporting local and regional goals to support interconnected trail systems, the Dry Creek Greenway East Trail Project aligns with the vision of California’s Transportation Plan to improve multimodal mobility and accessibility while reducing greenhouse gas emissions. The project supports the statewide objectives of fostering healthy lifestyles through active transportation and creating a low-carbon transportation system that protects human and environmental health. The project has carefully been designed to meet the needs of the community and achieve multiple benefits.

NHS Improvements ☒ YES ☐ NO

Roadway Class 1

Reversible Lane Analysis ☐ YES ☒ NO

Inc. Sustainable Communities Strategy Goals ☒ YES ☐ NO

Reduce Greenhouse Gas Emissions ☒ YES ☐ NO

Project Outputs

Category	Outputs	Unit	Total
Active Transportation	Pedestrian/Bicycle facilities miles constructed	Miles	2

Date 01/15/2021 15:37:19

Additional Information

The Placer-Sacramento Gateway Corridor Phase 1 improvements support the following goals and policies identified in the SACOG 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS):

Goal 1: Build vibrant places for today's and tomorrow's residents.

- Policy 1: Provide incentives, information, tools, technical assistance, and encouragement to support implementation of the Sacramento region's Sustainable Communities Strategy through:
 - o Revitalization of urban, suburban, and rural centers and corridors;
 - o Complete communities that include a balance of homes, jobs, services, amenities, and diverse transportation options; and
 - o Complete streets that provide safe, comfortable, and equitable facilities for people of all ages and abilities to walk, bike, and ride transit.
- Policy 2: Pursue funding opportunities that support the infrastructure improvements needed to support new housing and employment opportunities in existing urban, suburban, and rural communities.

Goal 2: Foster the next generation of mobility solutions.

- Policy 4: Pursue flexibility in state and federal funding sources to enable testing and implementation of innovative mobility solutions that are affordable, accessible, and reduce greenhouse gas emissions
- Policy 7: Support transit agencies and local governments looking to secure funds to improve the frequency, hours of service, and coverage of productive bus service (including bus rapid transit, express bus, and more frequent fixed-route service).
- Policy 8: Support more seamless travel through better traveler information for trip planning, reliable service and coordination between operators for transit, shared mobility and other first/last mile connections.

Goal 4: Build and maintain a safe, resilient, and multimodal transportation system

- Policy 19: Transit expansion, particularly light rail and other fixed infrastructure transit options, should be targeted at communities with supportive land use policies and development patterns that will generate transit ridership and improve the cost recovery rates for transit service.
- Policy 20: Prioritize cost effective safety improvements that will help the region eliminate fatal transportation related accidents.
- Policy 22: Invest in bicycle and pedestrian infrastructure to encourage healthy, active transportation trips and provide recreational opportunities for residents and visitors.
- Policy 23: Prioritize and incentivize transportation investments that benefit environmental justice communities.
- Policy 24: Invest in transportation improvements that improve access to major economic assets and job centers.
- Policy 25: Prioritize investments in transportation improvements that reduce greenhouse gas emissions and vehicle miles traveled.

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
Congestion Reduction	LPPF, LPPC, SCCP	Project Area, Corridor, County, or Regionwide VMT per Capita and Total VMT	Total Miles	22,583,529	22,602,243	-18,714
			VMT per Capita	29.92	29.95	-0.03
	LPPF, LPPC, SCCP	Person Hours of Travel Time Saved	Person Hours	2,991,330	3,009,718	-18,388
			Hours per Capita	3.96	3.98	-0.02
	LPPF, LPPC, SCCP	Daily Vehicle Hours of Delay	Hours	8,281	8,331	-50
	Optional	Percent Change in Non-Single Occupancy Vehicle Travel	%	20.81	20.81	0
System Reliability	LPPF, LPPC, SCCP	Peak Period Travel Time Reliability Index	Index	1.02	1.04	-0.02
	LPPF, LPPC, SCCP	Transit Service On-Time Performance	% "On-time"	97.8	94.5	3.3
Air Quality & GHG	LPPF, LPPC, SCCP, TCEP	Particulate Matter	PM 2.5 Tons	1,204.72	1,205	-0.28
			PM 10 Tons	1,289.71	1,290	-0.29
	LPPF, LPPC, SCCP, TCEP	Carbon Dioxide (CO2)	Tons	159,422,178	159,476,158	-53,980
	LPPF, LPPC, SCCP, TCEP	Volatile Organic Compounds (VOC)	Tons	21,338.83	21,348	-9.17
	LPPF, LPPC, SCCP, TCEP	Sulphur Dioxides (SOx)	Tons	1,568.45	1,569	-0.55
	LPPF, LPPC, SCCP, TCEP	Carbon Monoxide (CO)	Tons	488,100.71	488,276	-175.29
	LPPF, LPPC, SCCP, TCEP	Nitrogen Oxides (NOx)	Tons	117,294.04	117,339	-44.96
Safety	LPPF, LPPC, SCCP, TCEP	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries	Number	77.4	77.6	-0.2
	LPPF, LPPC, SCCP, TCEP	Number of Fatalities	Number	9.38	9.83	-0.45
	LPPF, LPPC, SCCP, TCEP	Fatalities per 100 Million VMT	Number	0.11	0.12	-0.01
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries	Number	159.52	163.8	-4.28
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries per 100 Million VMT	Number	1.94	1.99	-0.05
Accessibility	LPPF, LPPC, SCCP	Number of Jobs Accessible by Mode	Number	687,439	687,439	0
	LPPF, LPPC, SCCP	Number of Destinations Accessible by Mode	Number	360	360	0
	LPPF, LPPC, SCCP	Percent of Population Defined as Low Income or Disadvantaged Within 1/2 Mile of Rail Station, Ferry Terminal, or High-Frequency Bus Stop	%	71.8	70.5	1.3
Economic Development	LPPF, LPPC, SCCP, TCEP	Jobs Created (Direct and Indirect)	Number	1,461	0	1,461
Cost Effectiveness	LPPF, LPPC, SCCP, TCEP	Cost Benefit Ratio	Ratio	2.46	0	2.46

District	County	Route	EA	Project ID	PPNO
03	Placer		L2364	CML5182058	1526
Project Title					
PSGC Phase 1 - Dry Creek Greenway					

Existing Total Project Cost (\$1,000s)									Implementing Agency
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	
E&P (PA&ED)									City of Roseville
PS&E									City of Roseville
R/W SUP (CT)									City of Roseville
CON SUP (CT)									City of Roseville
R/W									City of Roseville
CON									City of Roseville
TOTAL									
Proposed Total Project Cost (\$1,000s)									Notes
E&P (PA&ED)	1,467							1,467	
PS&E	2,371							2,371	
R/W SUP (CT)	910							910	
CON SUP (CT)									
R/W									
CON		11,746						11,746	
TOTAL	4,748	11,746						16,494	

Fund #1:	State SB1 ATP - Active Transportation Program - SB1 (Committed)								Program Code
Existing Funding (\$1,000s)									
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									California Transportation Commissio
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		4,330						4,330	
TOTAL		4,330						4,330	

Fund #2:	CMAQ - Congestion Mitigation (Committed)								Program Code
Existing Funding (\$1,000s)									
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									Placer County Transportation Plannin
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)	545							545	
PS&E	50							50	
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		209						209	
TOTAL	595	209						804	
Fund #3:	Local Funds - Local Transportation Funds (Committed)								Program Code
Existing Funding (\$1,000s)									
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									City of Roseville
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)	922							922	
PS&E	2,321							2,321	
R/W SUP (CT)	910							910	
CON SUP (CT)									
R/W									
CON		968						968	
TOTAL	4,153	968						5,121	

Fund #4:	State SB1 SCCP - Solution for Congested Corridors Program (Uncommitted)								Program Code	
Existing Funding (\$1,000s)										
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency	
E&P (PA&ED)									California Transportation Commission	
PS&E										
R/W SUP (CT)										
CON SUP (CT)										
R/W										
CON										
TOTAL										
Proposed Funding (\$1,000s)									Notes	
E&P (PA&ED)										
PS&E										
R/W SUP (CT)										
CON SUP (CT)										
R/W										
CON		6,239						6,239		
TOTAL		6,239						6,239		

Amendment (Existing Project) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					Date	06/10/2021 20:41:55
Programs <input type="checkbox"/> LPP-C <input type="checkbox"/> LPP-F <input type="checkbox"/> SCCP <input type="checkbox"/> TCEP <input type="checkbox"/> STIP <input type="checkbox"/> Other						
District	EA	Project ID	PPNO	Nominating Agency		
03	1J500	0320000250	5147	Caltrans District 3		
County	Route	PM Back	PM Ahead	Co-Nominating Agency		
Placer	80	0.400	0.400	Sacramento Area Council of Governments, Placer County Tr		
				MPO	Element	
				SACOG	Capital Outlay	
Project Manager/Contact			Phone	Email Address		
Daniel Kwong			530-713-3023	daniel.kwong@dot.ca.gov		

Project Title

PSGC Phase 1 – I-80 Auburn Boulevard Ramp Meter

Location (Project Limits), Description (Scope of Work)

In Placer County. This project will Install ramp metering for eastbound I-80 at the Auburn Slip onramp. This project will allow for responsive control of traffic at a key entrance point onto the corridor.

Component	Implementing Agency
PA&ED	Caltrans District 3
PS&E	Caltrans District 3
Right of Way	Caltrans District 3
Construction	Caltrans District 3

Legislative Districts

Assembly:	6	Senate:	4	Congressional:	4
-----------	---	---------	---	----------------	---

Project Milestone	Existing	Proposed
Project Study Report Approved		
Begin Environmental (PA&ED) Phase	07/01/2020	07/01/2020
Circulate Draft Environmental Document Document Type CE		
Draft Project Report	08/01/2020	03/09/2021
End Environmental Phase (PA&ED Milestone)	08/15/2020	04/20/2021
Begin Design (PS&E) Phase	12/02/2020	05/03/2021
End Design Phase (Ready to List for Advertisement Milestone)	08/01/2021	08/02/2021
Begin Right of Way Phase	12/02/2020	05/03/2021
End Right of Way Phase (Right of Way Certification Milestone)	07/15/2021	07/19/2021
Begin Construction Phase (Contract Award Milestone)	01/15/2022	01/15/2022
End Construction Phase (Construction Contract Acceptance Milestone)	05/15/2022	10/03/2022
Begin Closeout Phase	05/14/2023	10/02/2023
End Closeout Phase (Closeout Report)	05/15/2025	03/03/2025

Date 06/10/2021 20:41:55

Purpose and Need

Eastbound I-80 at Auburn Blvd/Riverside Ave experiences congestion during the AM peak period due to heavy mainline and onramp demand. Currently, the volumes on the Auburn/Riverside onramp to Eastbound I-80 during the AM and PM peak hour are over 1,000 vph, with over one-third of the onramp vehicles using the unmetered HOVPL. Based on recent vehicle occupancy count data, HOVPLs on high volume slip onramps in congested areas in District 3 can contain up 60% single occupancy vehicles/HOV violators.

The high unmetered HOVPL volumes, which are exacerbated by a large percentage of HOV violators, reduce the efficiency and effectiveness of the existing ramp meter. Metering the HOVPL will reduce the number of HOV violators, maximize the efficiency of the existing ramp meter, eliminate the merging speed differential between the HOVPL and mixed flow onramp lanes, and break up vehicle platoons to facilitate safer and easier merging.

NHS Improvements

☐ YES ☒ NO

Roadway Class

NA

Reversible Lane Analysis

☐ YES ☒ NO

Inc. Sustainable Communities Strategy Goals

☒ YES ☐ NO

Reduce Greenhouse Gas Emissions

☒ YES ☐ NO

Project Outputs			
Category	Outputs	Unit	Total
TMS (Traffic Management Systems)	Freeway ramp meters	EA	1

Date 06/10/2021 20:41:55

Additional Information

The Placer-Sacramento Gateway Corridor Phase 1 improvements support the following goals and policies identified in the SACOG 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS):

Goal 1: Build vibrant places for today's and tomorrow's residents.

- Policy 1: Provide incentives, information, tools, technical assistance, and encouragement to support implementation of the Sacramento region's Sustainable Communities Strategy through:
 - o Revitalization of urban, suburban, and rural centers and corridors;
 - o Complete communities that include a balance of homes, jobs, services, amenities, and diverse transportation options; and
 - o Complete streets that provide safe, comfortable, and equitable facilities for people of all ages and abilities to walk, bike, and ride transit.
- Policy 2: Pursue funding opportunities that support the infrastructure improvements needed to support new housing and employment opportunities in existing urban, suburban, and rural communities.

Goal 2: Foster the next generation of mobility solutions.

- Policy 4: Pursue flexibility in state and federal funding sources to enable testing and implementation of innovative mobility solutions that are affordable, accessible, and reduce greenhouse gas emissions
- Policy 7: Support transit agencies and local governments looking to secure funds to improve the frequency, hours of service, and coverage of productive bus service (including bus rapid transit, express bus, and more frequent fixed-route service).
- Policy 8: Support more seamless travel through better traveler information for trip planning, reliable service and coordination between operators for transit, shared mobility and other first/last mile connections.

Goal 4: Build and maintain a safe, resilient, and multimodal transportation system

- Policy 19: Transit expansion, particularly light rail and other fixed infrastructure transit options, should be targeted at communities with supportive land use policies and development patterns that will generate transit ridership and improve the cost recovery rates for transit service.
- Policy 20: Prioritize cost effective safety improvements that will help the region eliminate fatal transportation related accidents.
- Policy 22: Invest in bicycle and pedestrian infrastructure to encourage healthy, active transportation trips and provide recreational opportunities for residents and visitors.
- Policy 23: Prioritize and incentivize transportation investments that benefit environmental justice communities.
- Policy 24: Invest in transportation improvements that improve access to major economic assets and job centers.
- Policy 25: Prioritize investments in transportation improvements that reduce greenhouse gas emissions and vehicle miles traveled.

Additionally, metering HOV Preferential Lanes (HOVPL) on existing ramp metering locations in areas of congestion reduces the number of HOV violators, maximizes the efficiency of the existing ramp meter, eliminates the merging speed differential between the HOVPL and mixed flow onramp lanes, and breaks up vehicle platoons to facilitate safer and easier merging. District 3 recently metered the HOVPL on the existing Mack Rd slip onramp to Northbound SR 99 ramp meter.

The severely congestion location experienced a 4% decrease in delay, which is a substantial reduction given the price and scope of the project. The decrease in delay can be directly attributed to metering previously unmetered vehicles, many of which were HOV violators. Similar results can be expected with metering the Auburn Blvd/Riverside Ave HOVPL.

Due to delays in support fund changes from Demo to CMAQ funds, the Project Report and Environmental Document was delayed by approximately 6 months. Successive delays were a result due to the delays in PA&ED, the updated schedule due these delays are reflected in the 'Proposed milestone section' of this ePPR .

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
Congestion Reduction	LPPF, LPPC, SCCP	Project Area, Corridor, County, or Regionwide VMT per Capita and Total VMT	Total Miles	22,583,529	22,602,243	-18,714
			VMT per Capita	29.92	29.95	-0.03
	LPPF, LPPC, SCCP	Person Hours of Travel Time Saved	Person Hours	2,991,330	3,009,718	-18,388
			Hours per Capita	3.96	3.99	-0.03
	LPPF, LPPC, SCCP	Daily Vehicle Hours of Delay	Hours	8,281	8,331	-50
	Optional	Percent Change in Non-Single Occupancy Vehicle Travel	%	20.81	20.81	0
	Optional	Per Capita and Total Person Hours of Delay per Year	Person Hours	2,991,330	3,009,718	-18,388
			Hours per Capita	3.96	3.99	-0.03
Throughput	Optional	Bicyclist/ Pedestrian Screen Line Counts	# of Bikes	195	100	95
			# of Pedestrians	450	230	220
	Optional	Peak Period Person Throughput by Applicable Mode	# of Persons	10,985	10,380	605
	Optional	Passengers Per Vehicle Service Hour	# of Passengers	102	96	6
System Reliability	LPPF, LPPC, SCCP	Peak Period Travel Time Reliability Index	Index	1.02	1.04	-0.02
	LPPF, LPPC, SCCP	Transit Service On-Time Performance	% "On-time"	97.8	94.5	3.3
Air Quality & GHG	LPPF, LPPC, SCCP, TCEP	Particulate Matter	PM 2.5 Tons	1,204.72	1,205	-0.28
			PM 10 Tons	1,289.71	1,290	-0.29
	LPPF, LPPC, SCCP, TCEP	Carbon Dioxide (CO2)	Tons	159,422,178	159,476,158	-53,980
	LPPF, LPPC, SCCP, TCEP	Volatile Organic Compounds (VOC)	Tons	21,338.83	21,348	-9.17
	LPPF, LPPC, SCCP, TCEP	Sulphur Dioxides (SOx)	Tons	1,568.45	1,569	-0.55
	LPPF, LPPC, SCCP, TCEP	Carbon Monoxide (CO)	Tons	488,100.71	488,276	-175.29
	LPPF, LPPC, SCCP, TCEP	Nitrogen Oxides (NOx)	Tons	117,294.04	117,339	-44.96
Safety	LPPF, LPPC, SCCP, TCEP	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries	Number	77.4	77.6	-0.2
	LPPF, LPPC, SCCP, TCEP	Number of Fatalities	Number	9.38	9.83	-0.45
	LPPF, LPPC, SCCP, TCEP	Fatalities per 100 Million VMT	Number	0.11	0.12	-0.01
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries	Number	159.52	163.8	-4.28
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries per 100 Million VMT	Number	1.94	1.99	-0.05
	Optional	Number of Property Damage Only and Non-Serious Injury Collisions	Number	1,966	2,090	-124
	Optional	Accident Cost Savings	Dollars	95,700,000	0	95,700,000

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
Accessibility	LPPF, LPPC, SCCP	Number of Jobs Accessible by Mode	Number	687,439	687,439	0
	LPPF, LPPC, SCCP	Number of Destinations Accessible by Mode	Number	360	360	0
	LPPF, LPPC, SCCP	Percent of Population Defined as Low Income or Disadvantaged Within 1/2 Mile of Rail Station, Ferry Terminal, or High-Frequency Bus Stop	%	71.8	70.5	1.3
Economic Development	LPPF, LPPC, SCCP, TCEP	Jobs Created (Direct and Indirect)	Number	1,461	0	1,461
Cost Effectiveness	LPPF, LPPC, SCCP, TCEP	Cost Benefit Ratio	Ratio	2.46	0	2.46

District	County	Route	EA	Project ID	PPNO
03	Placer	80	1J500	0320000250	5147
Project Title					
PSGC Phase 1 – I-80 Auburn Boulevard Ramp Meter					

Existing Total Project Cost (\$1,000s)									Implementing Agency
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	
E&P (PA&ED)	50							50	Caltrans District 3
PS&E		100						100	Caltrans District 3
R/W SUP (CT)		5						5	Caltrans District 3
CON SUP (CT)		150						150	Caltrans District 3
R/W		5						5	Caltrans District 3
CON		350						350	Caltrans District 3
TOTAL	50	610						660	
Proposed Total Project Cost (\$1,000s)									Notes
E&P (PA&ED)	50							50	
PS&E		100						100	
R/W SUP (CT)		5						5	
CON SUP (CT)		150						150	
R/W		5						5	
CON		350						350	
TOTAL	50	610						660	

Fund #1:	State SB1 SCCP - State Highway Account (Committed)								Program Code
	Existing Funding (\$1,000s)								20.XX.705.100
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)		150						150	
R/W									
CON		350						350	
TOTAL		500						500	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)		150						150	
R/W									
CON		350						350	
TOTAL		500						500	

Fund #2:	Demo - High Priority Projects Program (Committed)								Program Code
Existing Funding (\$1,000s)									20.30.010.680
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)	50							50	Placer County Transportation Plannin
PS&E		100						100	
R/W SUP (CT)		5						5	
CON SUP (CT)									
R/W		5						5	
CON									
TOTAL	50	110						160	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Fund #3:	CMAQ - Congestion Mitigation (Committed)								Program Code
Existing Funding (\$1,000s)									
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									Sacramento Area Council of Governm
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)	50							50	
PS&E		100						100	
R/W SUP (CT)		5						5	
CON SUP (CT)									
R/W		5						5	
CON									
TOTAL	50	110						160	

Complete this page for amendments only					Date 06/10/2021 20:41:55
District	County	Route	EA	Project ID	PPNO
03	Placer	80	1J500	0320000250	5147

SECTION 1 - All Projects

Project Background

Print ePPR for Baseline Agreement

Programming Change Requested

Reason for Proposed Change

Print ePPR for Baseline Agreement

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

Other Significant Information

SECTION 2 - For SB1 Project Only

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

Print ePPR for Baseline Agreement

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

SECTION 3 - All Projects

Attachments

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

Amendment (Existing Project) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					Date	06/10/2021 20:39:57
Programs <input type="checkbox"/> LPP-C <input type="checkbox"/> LPP-F <input type="checkbox"/> SCCP <input type="checkbox"/> TCEP <input type="checkbox"/> STIP <input type="checkbox"/> Other						
District	EA	Project ID	PPNO	Nominating Agency		
03	3F322	0321000123	5101	Caltrans HQ		
County	Route	PM Back	PM Ahead	Co-Nominating Agency		
Placer	80	4.100	6.000	Sacramento Area Council of Governments, Placer County Tr		
				MPO	Element	
				SACOG	Capital Outlay	
Project Manager/Contact			Phone	Email Address		
Mohan V. Bonala			530-788-3259	mohan.bonala@dot.ca.gov		

Project Title

PSGC Phase 1 - I-80 Transit Reliability

Location (Project Limits), Description (Scope of Work)

In Placer County, from Highway 65 to Rocklin Road. The project will add an auxiliary lane between Highway 65 and the Rocklin Road Interchanges, providing improved travel time reliability for the more than 90 bus trips that currently pass through this area daily.

Component	Implementing Agency
PA&ED	Placer County Transportation Planning Agency
PS&E	Placer County Transportation Planning Agency
Right of Way	Placer County Transportation Planning Agency
Construction	Caltrans HQ

Legislative Districts

Assembly: 6 Senate: 1 Congressional: 4

Project Milestone	Existing	Proposed
Project Study Report Approved		
Begin Environmental (PA&ED) Phase	03/03/2014	03/03/2014
Circulate Draft Environmental Document Document Type (ND/MND)/CE	01/11/2016	01/11/2016
Draft Project Report	10/14/2016	10/14/2016
End Environmental Phase (PA&ED Milestone)	10/14/2016	10/14/2016
Begin Design (PS&E) Phase	03/12/2018	03/12/2018
End Design Phase (Ready to List for Advertisement Milestone)	05/28/2021	04/29/2022
Begin Right of Way Phase	12/09/2019	12/09/2019
End Right of Way Phase (Right of Way Certification Milestone)	04/02/2021	06/30/2021
Begin Construction Phase (Contract Award Milestone)	10/08/2021	11/14/2022
End Construction Phase (Construction Contract Acceptance Milestone)	12/29/2023	03/24/2025
Begin Closeout Phase	01/02/2024	03/26/2025
End Closeout Phase (Closeout Report)	01/31/2025	12/01/2028

Date 06/10/2021 20:39:57

Purpose and Need

The purpose of the project is to provide an auxiliary lane that can reduce vehicle delay, improve travel time reliability, and facilitate smoother travel flow along eastbound I-80 between Highway 65 and Rocklin Road interchanges. The project is needed because the freeway is experiencing operational problems in the eastbound directions caused by high travel demand, especially during peak commute periods and weekends from recreational destinations in the Sierra Nevada and San Francisco Bay Area. At this location, the end of the HOV lane is 0.9 miles east of the Highway 65 interchange, combined with the merge of vehicles from Highway 65 requires two merges within 1/2 mile. This existing freeway configuration impedes the smooth flow of traffic, subjecting this location to recurring congestion, delay, and impaired mobility for freight, transit and passenger vehicles. This results in congestion bottlenecks, increased emissions, increased travel costs, and reduced travel time reliability and transit schedule adherence.

NHS Improvements

☒ YES ☐ NO

Roadway Class

1

Reversible Lane Analysis

☐ YES ☒ NO

Inc. Sustainable Communities Strategy Goals

☒ YES ☐ NO

Reduce Greenhouse Gas Emissions

☒ YES ☐ NO

Project Outputs

Category	Outputs	Unit	Total
Operational Improvement	Auxiliary lanes	Miles	1.9
Operational Improvement	Ramp modifications	EA	1

Date 06/10/2021 20:39:57

Additional Information

The Placer-Sacramento Gateway Corridor Phase 1 improvements support the following goals and policies identified in the SACOG 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS):

Goal 1: Build vibrant places for today's and tomorrow's residents.

- Policy 1: Provide incentives, information, tools, technical assistance, and encouragement to support implementation of the Sacramento region's Sustainable Communities Strategy through:
 - o Revitalization of urban, suburban, and rural centers and corridors;
 - o Complete communities that include a balance of homes, jobs, services, amenities, and diverse transportation options; and
 - o Complete streets that provide safe, comfortable, and equitable facilities for people of all ages and abilities to walk, bike, and ride transit.
- Policy 2: Pursue funding opportunities that support the infrastructure improvements needed to support new housing and employment opportunities in existing urban, suburban, and rural communities.

Goal 2: Foster the next generation of mobility solutions.

- Policy 4: Pursue flexibility in state and federal funding sources to enable testing and implementation of innovative mobility solutions that are affordable, accessible, and reduce greenhouse gas emissions
- Policy 7: Support transit agencies and local governments looking to secure funds to improve the frequency, hours of service, and coverage of productive bus service (including bus rapid transit, express bus, and more frequent fixed-route service).
- Policy 8: Support more seamless travel through better traveler information for trip planning, reliable service and coordination between operators for transit, shared mobility and other first/last mile connections.

Goal 4: Build and maintain a safe, resilient, and multimodal transportation system

- Policy 19: Transit expansion, particularly light rail and other fixed infrastructure transit options, should be targeted at communities with supportive land use policies and development patterns that will generate transit ridership and improve the cost recovery rates for transit service.
 - Policy 20: Prioritize cost effective safety improvements that will help the region eliminate fatal transportation related accidents.
 - Policy 22: Invest in bicycle and pedestrian infrastructure to encourage healthy, active transportation trips and provide recreational opportunities for residents and visitors.
 - Policy 23: Prioritize and incentivize transportation investments that benefit environmental justice communities.
 - Policy 24: Invest in transportation improvements that improve access to major economic assets and job centers.
 - Policy 25: Prioritize investments in transportation improvements that reduce greenhouse gas emissions and vehicle miles traveled.
-
- Need to update this ePPR "EA" to 3F232. The EA for this project is updated to 3F232 in the CTIPS programming database and the issue of incorrect EA will be resolved once the baseline ePPRs are updated in the programming database.
 - Reversible Lane Analysis not applicable.

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
Congestion Reduction	LPPF, LPPC, SCCP	Project Area, Corridor, County, or Regionwide VMT per Capita and Total VMT	Total Miles	22,583,529	22,602,243	-18,714
			VMT per Capita	29.92	29.95	-0.03
	LPPF, LPPC, SCCP	Person Hours of Travel Time Saved	Person Hours	2,991,330	3,009,718	-18,388
			Hours per Capita	3.96	3.99	-0.03
	LPPF, LPPC, SCCP	Daily Vehicle Hours of Delay	Hours	8,281	8,331	-50
	Optional	Percent Change in Non-Single Occupancy Vehicle Travel	%	20.81	20.81	0
Throughput	Optional	Bicyclist/ Pedestrian Screen Line Counts	# of Bikes	450	230	220
			# of Pedestrians	195	100	95
	Optional	Peak Period Person Throughput by Applicable Mode	# of Persons	10,985	10,380	605
	Optional	Passengers Per Vehicle Service Hour	# of Passengers	102	96	6
System Reliability	LPPF, LPPC, SCCP	Peak Period Travel Time Reliability Index	Index	1.02	1.04	-0.02
	LPPF, LPPC, SCCP	Transit Service On-Time Performance	% "On-time"	97.8	94.5	3.3
Air Quality & GHG	LPPF, LPPC, SCCP, TCEP	Particulate Matter	PM 2.5 Tons	1,204.72	1,205	-0.28
			PM 10 Tons	1,289.71	1,290	-0.29
	LPPF, LPPC, SCCP, TCEP	Carbon Dioxide (CO2)	Tons	159,422,178	159,476,158	-53,980
	LPPF, LPPC, SCCP, TCEP	Volatile Organic Compounds (VOC)	Tons	21,338.83	21,348	-9.17
	LPPF, LPPC, SCCP, TCEP	Sulphur Dioxides (SOx)	Tons	1,568.45	1,569	-0.55
	LPPF, LPPC, SCCP, TCEP	Carbon Monoxide (CO)	Tons	488,100.71	488,276	-175.29
	LPPF, LPPC, SCCP, TCEP	Nitrogen Oxides (NOx)	Tons	117,294.04	117,339	-44.96
Safety	LPPF, LPPC, SCCP, TCEP	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries	Number	77.4	77.6	-0.2
	LPPF, LPPC, SCCP, TCEP	Number of Fatalities	Number	9.38	9.83	-0.45
	LPPF, LPPC, SCCP, TCEP	Fatalities per 100 Million VMT	Number	0.11	0.12	-0.01
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries	Number	159.52	163.8	-4.28
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries per 100 Million VMT	Number	1.94	1.99	-0.05
	Optional	Number of Property Damage Only and Non-Serious Injury Collisions	Number	1,966	2,090	-124
	Optional	Accident Cost Savings	Dollars	-95,700,000	0	-95,700,000
Accessibility	LPPF, LPPC, SCCP	Number of Jobs Accessible by Mode	Number	687,439	687,439	0

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
	LPPF, LPPC, SCCP	Number of Destinations Accessible by Mode	Number	833	833	0
	LPPF, LPPC, SCCP	Percent of Population Defined as Low Income or Disadvantaged Within 1/2 Mile of Rail Station, Ferry Terminal, or High-Frequency Bus Stop	%	71.8	70.5	1.3
Economic Development	LPPF, LPPC, SCCP, TCEP	Jobs Created (Direct and Indirect)	Number	1,461	0	1,461
Cost Effectiveness	LPPF, LPPC, SCCP, TCEP	Cost Benefit Ratio	Ratio	2.46	0	2.46

District	County	Route	EA	Project ID	PPNO
03	Placer	80	3F322	0321000123	5101
Project Title					
PSGC Phase 1 - I-80 Transit Reliability					

Existing Total Project Cost (\$1,000s)									Implementing Agency
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	
E&P (PA&ED)	350							350	Placer County Transportation Plannin
PS&E	361							361	Placer County Transportation Plannin
R/W SUP (CT)									Placer County Transportation Plannin
CON SUP (CT)		1,015						1,015	Caltrans HQ
R/W	114							114	Placer County Transportation Plannin
CON		8,488						8,488	Caltrans HQ
TOTAL	825	9,503						10,328	
Proposed Total Project Cost (\$1,000s)									Notes
E&P (PA&ED)	350							350	
PS&E	361							361	
R/W SUP (CT)	45							45	
CON SUP (CT)		1,290						1,290	
R/W	55							55	
CON		9,379						9,379	
TOTAL	811	10,669						11,480	

Fund #1:	Demo - High Priority Projects Program (Committed)								Program Code
	Existing Funding (\$1,000s)								20.30.010.680
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)	350							350	Placer County Transportation Plannin
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W	44							44	
CON									
TOTAL	394							394	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)	350							350	
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W	45							45	
CON									
TOTAL	395							395	

Fund #2:	Federal Disc. - Earmark Repurposing (Committed)								Program Code
Existing Funding (\$1,000s)									20.XX.400.300
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									Placer County Transportation Plannin
PS&E	361							361	
R/W SUP (CT)									
CON SUP (CT)									
R/W	30							30	
CON									
TOTAL	391							391	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E	361							361	
R/W SUP (CT)									
CON SUP (CT)									
R/W	10							10	
CON									
TOTAL	371							371	
Fund #3:	Other Fed - Highway Infrastructure Program (HIP) (Committed)								Program Code
Existing Funding (\$1,000s)									20.30.010.300
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									Placer County Transportation Plannin
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W	40							40	
CON									
TOTAL	40							40	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)	45							45	
CON SUP (CT)									
R/W									
CON									
TOTAL	45							45	

Fund #4:	State SB1 SCCP - State Highway Account (Committed)								Program Code
Existing Funding (\$1,000s)									20.XX.705.100
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)		1,015						1,015	
R/W									
CON		8,488						8,488	
TOTAL		9,503						9,503	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)		1,015						1,015	
R/W									
CON		8,488						8,488	
TOTAL		9,503						9,503	
Fund #5:	Other Fed - Coronavirus Response and Relief Supplemental Appro (Committed)								Program Code
Existing Funding (\$1,000s)									
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									Placer County Transportation Plannin
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									Federal stimulus funds - STBG CRRSAA
PS&E									
R/W SUP (CT)									
CON SUP (CT)		275						275	
R/W									
CON		891						891	
TOTAL		1,166						1,166	

Complete this page for amendments only

Date 06/10/2021 20:39:57

District	County	Route	EA	Project ID	PPNO
03	Placer	80	3F322	0321000123	5101

SECTION 1 - All Projects

Project Background

The SCCP grant application submitted to the CTC in 2020 was based on a project at 90% design. The grant application anticipated that CTC funding would provide the balance of funds needed to go to construction. After the CTC award of the grant in December, the project continued to advance through constructability reviews and final design changes that resulted in unanticipated extra costs. The changes were a result of a variety of items such as newly discovered field condition, new design standards, and escalating bid prices. A cost escalation of 3.2% has also been factored into the project cost to reflect construction (contract award milestone) beginning mid FY 22/23. PCTPA will cover these added costs with locally controlled funding; however, the timing of this funding is such that the RTL date was revised to April 2022. The revised RTL date will allow all project funding to come together while meeting grant application requirement to allocate the funds in FY 21/22.

Programming Change Requested

Project amendment adds federal STBG CRRSAA funds to the project funding plan to address increased costs for construction support, construction, and escalation of 3.2%.

Reason for Proposed Change

After the CTC award of the grant in December, the project continued to advance through constructability reviews and final design changes that resulted in unanticipated extra costs. The changes were a result of a variety of items:

- An increase in construction contingency, supplemental items, department furnished material, construction management and support costs, roadway, structure and wall items, various general items, tree mitigation, and regulatory permits.
- Addition of gutters and slope paving behind project walls.
- New design standards.
- Modifications and additions in construction bid items and prices requested by Caltrans.
- An adjustment to reflect escalation of 3.2% for construction, construction support, right-of-way, and mitigation items to reflect construction (contract award milestone) beginning mid FY 22/23.

Please note, the full project consists of two segments. The EB segment is being funded primarily with SCCP funds. The WB segments is being funded primarily with TCEP funds. Both segments will be bid as one project. As such, the changes described above are applicable for both segments. In addition, the WB segment has experienced the following changes:

- Significant change in drainage design resulting in modification to the Stormwater Data Report, and changes to temporary water pollution controls.
- Utility relocation work that will need to occur and be completed before the project proceeds to construction. There are two existing PG&E gas lines that require abandonment. The utility agreement for the abandonment work is near completion. PG&E's construction work is currently scheduled for the mid-2022 timeframe.

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

Construction phase (contract award milestone) is scheduled to begin mid FY 22/23 based on updated Project Milestones. Because of the delay in Begin Construction Phase by about one-year, for the reasons explained above, the End Construction Phase is also delayed. The estimated duration between End Construction Phase and End Closeout Phase of this project (45 months) is based on the historic average duration of D3 projects' from Construction Contract Acceptance (CCA) to End Project milestones. Even though the End Project Phase is estimated in December 2028, the newly added auxiliary lanes are estimated to open by the end of 2024 or early 2025; open to traffic usually happens before reaching End Construction Phase milestone date.

Other Significant Information

None.

SECTION 2 - For SB1 Project Only

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

Project amendment adds federal STBG CRRSAA funds to the project funding plan to address increased costs for construction support, construction, and escalation of 3.2%.

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

SECTION 3 - All Projects

Attachments

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

Amendment (Existing Project) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO						Date	04/22/2021 22:27:34
Programs <input type="checkbox"/> LPP-C <input type="checkbox"/> LPP-F <input type="checkbox"/> SCCP <input type="checkbox"/> TCEP <input type="checkbox"/> STIP <input type="checkbox"/> Other							
District	EA	Project ID	PPNO	Nominating Agency			
03			2201	Caltrans HQ			
County	Route	PM Back	PM Ahead	Co-Nominating Agency			
Sacramento				Placer County Transportation Planning Agency, Sacramento			
				MPO	Element		
				SACOG	Mass Transit (MT)		
Project Manager/Contact			Phone	Email Address			
Erik J. Reitz			916-321-2959	ereitz@sacRT.com			

Project Title

PSGC Phase 1 – Light Rail Modernization LRVs

Location (Project Limits), Description (Scope of Work)

Light Rail Vehicles will operate on the Blue Lines North East Corridor (NEC) which includes stations within the City of Sacramento and Sacramento County. Purchase eight (8) Low-Floor Light Rail Vehicles (LRV) to replace eight (8) high floor LRVs which are past their useful life. SacRT has entering into a contact with Siemens Mobility Inc. to acquire up to 76 new Siemens model S700 low floor LRVs. SacRT has identified funding for the first 20 vehicles and has issued Siemens a Notice to Proceed with the manufacturing of those LRV. The contract includes options for the remaining 56 vehicles that will need to be exercised within the next 7 years. The S700 low-floor LRVs will have low-level boarding at every doorway, a spacious seating design, and larger windows for better light and views. They will feature improved accessibility with wider aisles, built-in storage space for luggage and areas for bicycles.

Component	Implementing Agency
PA&ED	Sacramento Regional Transit District
PS&E	Sacramento Regional Transit District
Right of Way	Sacramento Regional Transit District
Construction	Sacramento Regional Transit District

Legislative Districts

Assembly:	8	Senate:	6	Congressional:	6
-----------	---	---------	---	----------------	---

Project Milestone	Existing	Proposed
Project Study Report Approved		
Begin Environmental (PA&ED) Phase	05/01/2019	05/01/2019
Circulate Draft Environmental Document Document Type CE/CE	06/01/2019	06/01/2019
Draft Project Report	06/01/2019	06/01/2019
End Environmental Phase (PA&ED Milestone)	07/17/2019	07/17/2019
Begin Design (PS&E) Phase	10/01/2018	10/01/2018
End Design Phase (Ready to List for Advertisement Milestone)	02/22/2019	02/22/2019
Begin Right of Way Phase	01/07/2019	01/07/2019
End Right of Way Phase (Right of Way Certification Milestone)	01/25/2019	01/25/2019
Begin Construction Phase (Contract Award Milestone)	06/30/2022	06/30/2022
End Construction Phase (Construction Contract Acceptance Milestone)	07/01/2026	07/01/2026
Begin Closeout Phase	07/02/2026	07/02/2026
End Closeout Phase (Closeout Report)	08/01/2026	08/01/2026

Date 04/22/2021 22:27:34

Purpose and Need

In 1987 SacRT opened an 18.3 mile light rail system that linked northeastern (Interstate 80) and eastern (Highway 50) corridors with downtown Sacramento. The new system served 30 new stations with 26 new Siemens-Duewag high floor light rail vehicles. The new stations were equipped with mini-high platforms to allow ADA accessibility to the front light rail vehicle. The new system often referred to as the “Starter Line” was a model of cost efficiency being constructed at a mere cost of \$176 million including the cost of vehicle and construction of a maintenance/ storage facility).

Flash forward 33 years, SacRT’s light rail system now operates on over 43 miles of track and provides service to over 50 stations. However, the SacRT light rail fleet still includes all 26 of the original Siemens-Duewag vehicles which have been in service since the opening of the light rail system and more than 10 other light rail vehicles that are beyond their useful life. The age and the configuration (high floor vehicles) of the fleet have begun to have a negative effect on passenger experience, leading some passengers to use other modes of transportation for their daily trips. These negative experiences include reduced reliability, decreased accessibility, and reduced capacity

SacRT's light rail system is needs substantial modernization, especially of vehicles and stations, to continue to compete as an effective alternative to single occupant vehicle travel and support more transit-oriented development. In 2018 SacRT started implementing these improvement with of the SacRT Light Rail Modernization Phase 1 (Gold Line) project. SacRT was able to secure funding for part of Phase 1 including purchasing 20 new LRVs, partial converting 29 Gold Line stations and constructing new side track and signaling to allow for 15 minute service to Folsom. In the 2020 TIRCP round, SacRT received grant funding to continue to move the project forward and to purchase eight (8) more LRVs for the Gold Line service. However, additional funding is still needed to complete the SacRT Light Rail Modernization Phase 2 (Blue Line) to bring low-floor light rail service to all SacRT light rail users.

NHS Improvements ☐ YES ☒ NO

Roadway Class NA

Reversible Lane Analysis ☐ YES ☒ NO

Inc. Sustainable Communities Strategy Goals ☒ YES ☐ NO

Reduce Greenhouse Gas Emissions ☒ YES ☐ NO

Project Outputs

Category	Outputs	Unit	Total
Rail/ Multi-Modal	Rail cars/ transit vehicles	EA	8

Date 04/22/2021 22:27:34

Additional Information

The Placer-Sacramento Gateway Corridor Phase 1 improvements support the following goals and policies identified in the SACOG 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS):

Goal 1: Build vibrant places for today's and tomorrow's residents.

Policy 1: Provide incentives, information, tools, technical assistance, and encouragement to support implementation of the Sacramento region's Sustainable Communities Strategy through:

Revitalization of urban, suburban, and rural centers and corridors;

Complete communities that include a balance of homes, jobs, services, amenities, and diverse transportation options; and

Complete streets that provide safe, comfortable, and equitable facilities for people of all ages and abilities to walk, bike, and ride transit.

Policy 2: Pursue funding opportunities that support the infrastructure improvements needed to support new housing and employment opportunities in existing urban, suburban, and rural communities.

Goal 2: Foster the next generation of mobility solutions.

Policy 4: Pursue flexibility in state and federal funding sources to enable testing and implementation of innovative mobility solutions that are affordable, accessible, and reduce greenhouse gas emissions

Policy 7: Support transit agencies and local governments looking to secure funds to improve the frequency, hours of service, and coverage of productive bus service (including bus rapid transit, express bus, and more frequent fixed-route service).

Policy 8: Support more seamless travel through better traveler information for trip planning, reliable service and coordination between operators for transit, shared mobility and other first/last mile connections.

Goal 4: Build and maintain a safe, resilient, and multimodal transportation system

Policy 19: Transit expansion, particularly light rail and other fixed infrastructure transit options, should be targeted at communities with supportive land use policies and development patterns that will generate transit ridership and improve the cost recovery rates for transit service.

Policy 20: Prioritize cost effective safety improvements that will help the region eliminate fatal transportation related accidents.

Policy 22: Invest in bicycle and pedestrian infrastructure to encourage healthy, active transportation trips and provide recreational opportunities for residents and visitors.

Policy 23: Prioritize and incentivize transportation investments that benefit environmental justice communities.

Policy 24: Invest in transportation improvements that improve access to major economic assets and job centers.

Policy 25: Prioritize investments in transportation improvements that reduce greenhouse gas emissions and vehicle miles traveled.

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
Congestion Reduction	LPPF, LPPC, SCCP	Project Area, Corridor, County, or Regionwide VMT per Capita and Total VMT	Total Miles	22,583,529	22,602,243	-18,714
			VMT per Capita	29.92	29.95	-0.03
	LPPF, LPPC, SCCP	Person Hours of Travel Time Saved	Person Hours	2,991,330	3,009,718	-18,388
			Hours per Capita	3.96	3.99	-0.03
	LPPF, LPPC, SCCP	Daily Vehicle Hours of Delay	Hours	8,281	8,331	-50
	Optional	Percent Change in Non-Single Occupancy Vehicle Travel	%	20.81	20.81	0
Throughput	Optional	Bicyclist/ Pedestrian Screen Line Counts	# of Bikes	450	230	220
			# of Pedestrians	195	100	95
	Optional	Peak Period Person Throughput by Applicable Mode	# of Persons	10,985	10,380	605
	Optional	Passengers Per Vehicle Service Hour	# of Passengers	102	96	6
System Reliability	LPPF, LPPC, SCCP	Peak Period Travel Time Reliability Index	Index	1.02	1.04	-0.02
	LPPF, LPPC, SCCP	Transit Service On-Time Performance	% "On-time"	97.8	94.5	3.3
Air Quality & GHG	LPPF, LPPC, SCCP, TCEP	Particulate Matter	PM 2.5 Tons	1,204.72	1,205	-0.28
			PM 10 Tons	1,289.71	1,290	-0.29
	LPPF, LPPC, SCCP, TCEP	Carbon Dioxide (CO2)	Tons	159,422,178	159,476,158	-53,980
	LPPF, LPPC, SCCP, TCEP	Volatile Organic Compounds (VOC)	Tons	21,338.83	21,348	-9.17
	LPPF, LPPC, SCCP, TCEP	Sulphur Dioxides (SOx)	Tons	1,568.45	1,569	-0.55
	LPPF, LPPC, SCCP, TCEP	Carbon Monoxide (CO)	Tons	488,100.71	488,276	-175.29
	LPPF, LPPC, SCCP, TCEP	Nitrogen Oxides (NOx)	Tons	117,294.04	117,339	-44.96
Safety	LPPF, LPPC, SCCP, TCEP	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries	Number	77.4	77.6	-0.2
	LPPF, LPPC, SCCP, TCEP	Number of Fatalities	Number	9.38	9.83	-0.45
	LPPF, LPPC, SCCP, TCEP	Fatalities per 100 Million VMT	Number	0.11	0.12	-0.01
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries	Number	159.52	163.8	-4.28
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries per 100 Million VMT	Number	1.94	1.99	-0.05
	Optional	Number of Property Damage Only and Non-Serious Injury Collisions	Number	1,966	2,090	-124
	Optional	Accident Cost Savings	Dollars	-95,700,000	0	-95,700,000
Accessibility	LPPF, LPPC, SCCP	Number of Jobs Accessible by Mode	Number	687,439	687,439	0

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
	LPPF, LPPC, SCCP	Number of Destinations Accessible by Mode	Number	360	360	0
	LPPF, LPPC, SCCP	Percent of Population Defined as Low Income or Disadvantaged Within 1/2 Mile of Rail Station, Ferry Terminal, or High-Frequency Bus Stop	%	71.8	70.5	1.3
Economic Development	LPPF, LPPC, SCCP, TCEP	Jobs Created (Direct and Indirect)	Number	1,461	0	1,461
Cost Effectiveness	LPPF, LPPC, SCCP, TCEP	Cost Benefit Ratio	Ratio	2.46	0	2.46

District	County	Route	EA	Project ID	PPNO
03	Sacramento				2201
Project Title					
PSGC Phase 1 – Light Rail Modernization LRVs					

Existing Total Project Cost (\$1,000s)									Implementing Agency
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		47,206						47,206	
TOTAL		47,206						47,206	
Proposed Total Project Cost (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		47,206						47,206	
TOTAL		47,206						47,206	

Fund #1:	State SB1 SCCP - Solution for Congested Corridors Program (Committed)								Program Code
Existing Funding (\$1,000s)									30.10.030.100
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		22,994						22,994	
TOTAL		22,994						22,994	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		22,994						22,994	
TOTAL		22,994						22,994	

Fund #2:	RSTP - STP Local (Committed)								Program Code
Existing Funding (\$1,000s)									20.30.010.810
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									Sacramento Area Council of Governm Sacramento Regional Transit District Contribution SACOG Regional Funds. Funds will be committed before Dec. 2020.
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		10,523						10,523	
TOTAL		10,523						10,523	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		10,523						10,523	
TOTAL		10,523						10,523	
Fund #3:	Other State - Low Carbon Transit Operations Program (LCTOP) (Committed)								Program Code
Existing Funding (\$1,000s)									20.30.207.811
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									Caltrans HQ This funding is distributed by formula, applicants are just required to have a project that meet program requirements. Award announcements are expected to be in July 2020.
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		400						400	
TOTAL		400						400	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		400						400	
TOTAL		400						400	

Fund #4:	Other State - STA Transit Assist (Committed)								Program Code
Existing Funding (\$1,000s)									20.30.207.811
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									Caltrans HQ SB 1 STA-State of Good Repair (SGR)
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		3,296						3,296	
TOTAL		3,296						3,296	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		3,296						3,296	
TOTAL		3,296						3,296	
Fund #5:	FTA Funds - FTA5307 - Urbanized Area Formula Program (Committed)								Program Code
Existing Funding (\$1,000s)									FTA-TRANSIT
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									Sacramento Area Council of Governm Regional 5307 Discretionary Funds, Distribute by SACOG. Funds will be committed before Dec. 2020.
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		4,993						4,993	
TOTAL		4,993						4,993	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		4,993						4,993	
TOTAL		4,993						4,993	

Fund #6:	FTA Funds - State of Good Repair Formula Grants (Committed)								Program Code
Existing Funding (\$1,000s)									FTA-TRANSIT
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									Funding Description 5337 State of Good Repair (Formula) Funding Agency: Federal Transit Administration
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		5,000						5,000	
TOTAL		5,000						5,000	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		5,000						5,000	
TOTAL		5,000						5,000	

Complete this page for amendments only					Date 04/22/2021 22:27:34
District	County	Route	EA	Project ID	PPNO
03	Sacramento				2201

SECTION 1 - All Projects

Project Background

N/A

Programming Change Requested

Reason for Proposed Change

N/A

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

Other Significant Information

SECTION 2 - For SB1 Project Only

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

N/A

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

SECTION 3 - All Projects

Attachments

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

Amendment (Existing Project) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO						Date	06/14/2021 08:45:26
Programs <input type="checkbox"/> LPP-C <input type="checkbox"/> LPP-F <input type="checkbox"/> SCCP <input type="checkbox"/> TCEP <input type="checkbox"/> STIP <input type="checkbox"/> Other							
District	EA	Project ID	PPNO	Nominating Agency			
03			1532A	Caltrans HQ			
County	Route	PM Back	PM Ahead	Co-Nominating Agency			
Sacramento				Sacramento Area Council of Governments, Placer County Tr			
				MPO	Element		
				SACOG	Mass Transit (MT)		
Project Manager/Contact			Phone	Email Address			
Erik J. Reitz			916-321-2959	ereitz@sacrt.com			

Project Title

PSGC Phase 1 – Light Rail Modernization Stations Phase 2

Location (Project Limits), Description (Scope of Work)

City of Sacramento and Sacramento Count. Light Rail Vehicle Station Conversions to accommodate low floor light rail vehicles (LRVs). Funds will be used for full build station conversions on the northeastern corridor of the Blue light rail lines. Other funding sources (not part of this project) will be used for conversions on the Gold Line. Station Conversions include raising the platform up at least 8 inches above the top of the rail in order to allow for automatic passenger ramp deployment. Without the conversion of the stations low-floor vehicles will not be able to provide service on the Blue Line NEC.

Component	Implementing Agency
PA&ED	Sacramento Regional Transit District
PS&E	Sacramento Regional Transit District
Right of Way	Sacramento Regional Transit District
Construction	Sacramento Regional Transit District

Legislative Districts

Assembly:	8	Senate:	6	Congressional:	6
-----------	---	---------	---	----------------	---

Project Milestone	Existing	Proposed
Project Study Report Approved		
Begin Environmental (PA&ED) Phase	12/01/2018	12/01/2018
Circulate Draft Environmental Document Document Type CE/CE	06/01/2019	06/01/2019
Draft Project Report	07/01/2019	07/01/2019
End Environmental Phase (PA&ED Milestone)	07/31/2019	07/31/2019
Begin Design (PS&E) Phase	08/01/2020	08/01/2020
End Design Phase (Ready to List for Advertisement Milestone)	10/31/2020	04/01/2022
Begin Right of Way Phase	10/01/2020	10/01/2021
End Right of Way Phase (Right of Way Certification Milestone)	10/26/2020	10/26/2021
Begin Construction Phase (Contract Award Milestone)	01/01/2021	06/30/2022
End Construction Phase (Construction Contract Acceptance Milestone)	12/31/2023	07/01/2024
Begin Closeout Phase	01/01/2024	08/30/2024
End Closeout Phase (Closeout Report)	03/31/2024	11/30/2024

Date 06/14/2021 08:45:26

Purpose and Need

In 1987 SacRT opened an 18.3 mile light rail system that linked northeastern (Interstate 80) and eastern (Highway 50) corridors with downtown Sacramento. The new system served 30 new stations with 26 new Siemens-Duewag high floor light rail vehicles. The new stations were equipped with mini-high platforms to allow ADA accessibility to the front light rail vehicle. The new system often referred to as the “Starter Line” was a model of cost efficiency being constructed at a mere cost of \$176 million including the cost of vehicle and construction of a maintenance/ storage facility).

Flash forward 33 years, SacRT’s light rail system now operates on over 43 miles of track and provides service to over 50 stations. However, the SacRT light rail fleet still includes all 26 of the original Siemens-Duewag vehicles which have been in service since the opening of the light rail system and more than 10 other light rail vehicles that are beyond their useful life. The age and the configuration (high floor vehicles) of the fleet have begun to have a negative effect on passenger experience, leading some passengers to use other modes of transportation for their daily trips. These negative experiences include reduced reliability, decreased accessibility, and reduced capacity

SacRT's light rail system is needs substantial modernization, especially of vehicles and stations, to continue to compete as an effective alternative to single occupant vehicle travel and support more transit-oriented development. In 2018 SacRT started implementing these improvement with of the SacRT Light Rail Modernization Phase 1 (Gold Line) project. SacRT was able to secure funding for part of Phase 1 including purchasing 20 new LRVs, partial converting 29 Gold Line stations and constructing new side track and signaling to allow for 15 minute service to Folsom. In the 2020 TIRCP round, SacRT received grant funding to continue to move the project forward and to purchase eight (8) more LRVs for the Gold Line service. However, additional funding is still needed to complete the SacRT Light Rail Modernization Phase 2 (Blue Line) to bring low-floor light rail service to all SacRT light rail users.

NHS Improvements	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Roadway Class	NA	Reversible Lane Analysis	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Inc. Sustainable Communities Strategy Goals	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Reduce Greenhouse Gas Emissions	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		

Project Outputs

Category	Outputs	Unit	Total
Rail/ Multi-Modal	Station improvements	EA	4

Date 06/14/2021 08:45:26

Additional Information

The Placer-Sacramento Gateway Corridor Phase 1 improvements support the following goals and policies identified in the SACOG 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS):

Goal 1: Build vibrant places for today's and tomorrow's residents.

Policy 1: Provide incentives, information, tools, technical assistance, and encouragement to support implementation of the Sacramento region's Sustainable Communities Strategy through:

Revitalization of urban, suburban, and rural centers and corridors;

Complete communities that include a balance of homes, jobs, services, amenities, and diverse transportation options; and

Complete streets that provide safe, comfortable, and equitable facilities for people of all ages and abilities to walk, bike, and ride transit.

Policy 2: Pursue funding opportunities that support the infrastructure improvements needed to support new housing and employment opportunities in existing urban, suburban, and rural communities.

Goal 2: Foster the next generation of mobility solutions.

Policy 4: Pursue flexibility in state and federal funding sources to enable testing and implementation of innovative mobility solutions that are affordable, accessible, and reduce greenhouse gas emissions

Policy 7: Support transit agencies and local governments looking to secure funds to improve the frequency, hours of service, and coverage of productive bus service (including bus rapid transit, express bus, and more frequent fixed-route service).

Policy 8: Support more seamless travel through better traveler information for trip planning, reliable service and coordination between operators for transit, shared mobility and other first/last mile connections.

Goal 4: Build and maintain a safe, resilient, and multimodal transportation system

Policy 19: Transit expansion, particularly light rail and other fixed infrastructure transit options, should be targeted at communities with supportive land use policies and development patterns that will generate transit ridership and improve the cost recovery rates for transit service.

Policy 20: Prioritize cost effective safety improvements that will help the region eliminate fatal transportation related accidents.

Policy 22: Invest in bicycle and pedestrian infrastructure to encourage healthy, active transportation trips and provide recreational opportunities for residents and visitors.

Policy 23: Prioritize and incentivize transportation investments that benefit environmental justice communities.

Policy 24: Invest in transportation improvements that improve access to major economic assets and job centers.

Policy 25: Prioritize investments in transportation improvements that reduce greenhouse gas emissions and vehicle miles traveled.

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
Congestion Reduction	LPPF, LPPC, SCCP	Project Area, Corridor, County, or Regionwide VMT per Capita and Total VMT	Total Miles	22,583,529	22,602,243	-18,714
			VMT per Capita	29.92	29.95	-0.03
	LPPF, LPPC, SCCP	Person Hours of Travel Time Saved	Person Hours	2,991,330	3,009,718	-18,388
			Hours per Capita	3.96	3.99	-0.03
	LPPF, LPPC, SCCP	Daily Vehicle Hours of Delay	Hours	8,281	8,331	-50
	Optional	Percent Change in Non-Single Occupancy Vehicle Travel	%	20.81	20.81	0
Throughput	Optional	Bicyclist/ Pedestrian Screen Line Counts	# of Bikes	450	230	220
			# of Pedestrians	195	100	95
	Optional	Peak Period Person Throughput by Applicable Mode	# of Persons	10,985	10,380	605
	Optional	Passengers Per Vehicle Service Hour	# of Passengers	102	96	6
System Reliability	LPPF, LPPC, SCCP	Peak Period Travel Time Reliability Index	Index	1.02	1.04	-0.02
	LPPF, LPPC, SCCP	Transit Service On-Time Performance	% "On-time"	97.8	94.5	3.3
Air Quality & GHG	LPPF, LPPC, SCCP, TCEP	Particulate Matter	PM 2.5 Tons	1,204.72	1,205	-0.28
			PM 10 Tons	1,289.71	1,290	-0.29
	LPPF, LPPC, SCCP, TCEP	Carbon Dioxide (CO2)	Tons	159,422,178	159,476,158	-53,980
	LPPF, LPPC, SCCP, TCEP	Volatile Organic Compounds (VOC)	Tons	21,338.83	21,348	-9.17
	LPPF, LPPC, SCCP, TCEP	Sulphur Dioxides (SOx)	Tons	1,568.45	1,569	-0.55
	LPPF, LPPC, SCCP, TCEP	Carbon Monoxide (CO)	Tons	488,100.71	488,276	-175.29
	LPPF, LPPC, SCCP, TCEP	Nitrogen Oxides (NOx)	Tons	117,294.04	117,339	-44.96
Safety	LPPF, LPPC, SCCP, TCEP	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries	Number	77.4	77.6	-0.2
	LPPF, LPPC, SCCP, TCEP	Number of Fatalities	Number	9.38	9.83	-0.45
	LPPF, LPPC, SCCP, TCEP	Fatalities per 100 Million VMT	Number	0.11	0.12	-0.01
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries	Number	159.52	163.8	-4.28
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries per 100 Million VMT	Number	1.94	1.99	-0.05
	Optional	Number of Property Damage Only and Non-Serious Injury Collisions	Number	1,966	2,090	-124
	Optional	Accident Cost Savings	Dollars	-95,700,000	0	-95,700,000
Accessibility	LPPF, LPPC, SCCP	Number of Jobs Accessible by Mode	Number	687,439	687,439	0

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
	LPPF, LPPC, SCCP	Number of Destinations Accessible by Mode	Number	360	360	0
	LPPF, LPPC, SCCP	Percent of Population Defined as Low Income or Disadvantaged Within 1/2 Mile of Rail Station, Ferry Terminal, or High-Frequency Bus Stop	%	71.8	70.5	1.3
Economic Development	LPPF, LPPC, SCCP, TCEP	Jobs Created (Direct and Indirect)	Number	1,461	0	1,461
Cost Effectiveness	LPPF, LPPC, SCCP, TCEP	Cost Benefit Ratio	Ratio	2.46	0	2.46

District	County	Route	EA	Project ID	PPNO
03	Sacramento				1532A

Project Title

PSGC Phase 1 – Light Rail Modernization Stations Phase 2

Existing Total Project Cost (\$1,000s)									Implementing Agency
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	
E&P (PA&ED)									Sacramento Regional Transit District
PS&E									Sacramento Regional Transit District
R/W SUP (CT)									Sacramento Regional Transit District
CON SUP (CT)									Sacramento Regional Transit District
R/W									Sacramento Regional Transit District
CON		6,040						6,040	Sacramento Regional Transit District
TOTAL		6,040						6,040	
Proposed Total Project Cost (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		6,040						6,040	
TOTAL		6,040						6,040	

Fund #1:	State SB1 SCCP - Solution for Congested Corridors Program (Committed)								Program Code
	Existing Funding (\$1,000s)								30.10.030.100
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		2,942						2,942	
TOTAL		2,942						2,942	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		2,942						2,942	
TOTAL		2,942						2,942	

Fund #2:	Other State - Low Carbon Transit Operations Program (LCTOP) (Committed)								Program Code
Existing Funding (\$1,000s)									20.30.207.811
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									Caltrans HQ LCTOP are GGRF funds that are distributed by formula to transit agencies across the state.
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		800						800	
TOTAL		800						800	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		800						800	
TOTAL		800						800	
Fund #3:	Other State - STA Transit Assist (Committed)								Program Code
Existing Funding (\$1,000s)									20.30.207.811
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									Caltrans HQ SB 1 STA-State of Good Repair, formula funds distributed to transit agencies.
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		710						710	
TOTAL		710						710	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		710						710	
TOTAL		710						710	

Fund #4:	CMAQ - Congestion Mitigation (Committed)								Program Code
Existing Funding (\$1,000s)									20.30.010.820
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									Sacramento Area Council of Governm
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		1,588						1,588	
TOTAL		1,588						1,588	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		1,588						1,588	
TOTAL		1,588						1,588	

Complete this page for amendments only

Date 06/14/2021 08:45:26

District	County	Route	EA	Project ID	PPNO
03	Sacramento				1532A

SECTION 1 - All Projects

Project Background

N/A

Programming Change Requested

Reason for Proposed Change

The Project title changed on this project to add "Phase 2" as clarification as SacRT already has a Light Rail Modernizations Stations project that is using state funding but is for a different light rail line. SacRT wanted to make sure there was a clear delineation between the two different state funded projects.

The begin of CON Delayed from 01-01-21 to 06-30-22 is to better delineate between the work being done on the Gold Line (Light Rail Modernization Station Phase 1) and the work being done on the Blue Line (Light Rail Modernization Station Phase 2). This change also represents a slight delay in Phase 1 work where construction has been delayed roughly 8 months due to delays in preconstruction work.

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

The begin of CON Delayed from 01-01-21 to 06-30-22 is to better delineate between the work being done on the Gold Line (Light Rail Modernization Station Phase 1) and the work being done on the Blue Line (Light Rail Modernization Station Phase 2). This change also represents a slight delay in Phase 1 work where construction has been delayed roughly 8 months due to delays in preconstruction work.

Other Significant Information

SECTION 2 - For SB1 Project Only

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

N/A

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

SECTION 3 - All Projects

Attachments

1) Concurrence from Implementing Agency and/or Regional Transportation Planning Agency

2) Project Location Map

Amendment (Existing Project) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO						Date	04/27/2021 14:49:50
Programs <input type="checkbox"/> LPP-C <input type="checkbox"/> LPP-F <input type="checkbox"/> SCCP <input type="checkbox"/> TCEP <input type="checkbox"/> STIP <input type="checkbox"/> Other							
District	EA	Project ID	PPNO	Nominating Agency			
03			1535	Caltrans HQ			
County	Route	PM Back	PM Ahead	Co-Nominating Agency			
Placer				Placer County Transportation Planning Agency, Sacramento			
				MPO	Element		
				SACOG	Mass Transit (MT)		
Project Manager/Contact			Phone	Email Address			
Mike Dour			916-746-1304	mdour@roseville.ca.us			

Project Title

PSGC Phase 1 - South Placer Transit

Location (Project Limits), Description (Scope of Work)

In Placer and Sacramento counties. The Lincoln to Sacramento express bus service will begin in the City of Lincoln and then continue along the Highway 65 corridor with stops at the Galleria Mall, Sutter Hospital and Kaiser Hospital. The express bus service would then travel down Interstate 80 into Sacramento County and terminate at Sacramento Regional Transits Watt/I-80 light rail station. The light rail service would then enable passengers to travel to and from downtown Sacramento, the Railyards and other key destinations within Sacramento County. This new express bus service is expected to operate on weekdays every 30 minutes between approximately 6 a.m. and 9 p.m. The service will be provided using five (5) new 40' battery electric buses (4 buses and 1 spare). Battery charging would require three depot chargers (150 KW) and two on-route chargers (450 KW).

Component	Implementing Agency
PA&ED	Placer County Transportation Planning Agency
PS&E	City of Roseville
Right of Way	City of Roseville
Construction	City of Roseville

Legislative Districts

Assembly:	6	Senate:	1	Congressional:	4
-----------	---	---------	---	----------------	---

Project Milestone	Existing	Proposed
Project Study Report Approved		
Begin Environmental (PA&ED) Phase	03/02/2020	03/02/2020
Circulate Draft Environmental Document Document Type CE	04/27/2020	04/27/2020
Draft Project Report	04/27/2020	04/27/2020
End Environmental Phase (PA&ED Milestone)	04/27/2020	06/24/2020
Begin Design (PS&E) Phase	07/01/2020	07/01/2020
End Design Phase (Ready to List for Advertisement Milestone)	04/02/2021	04/02/2021
Begin Right of Way Phase	06/01/2020	06/01/2020
End Right of Way Phase (Right of Way Certification Milestone)	12/31/2020	12/31/2020
Begin Construction Phase (Contract Award Milestone)	10/01/2021	10/01/2021
End Construction Phase (Construction Contract Acceptance Milestone)	06/30/2023	06/30/2023
Begin Closeout Phase	07/07/2023	07/07/2023
End Closeout Phase (Closeout Report)	09/29/2023	09/29/2023

Date 04/27/2021 14:49:50

Purpose and Need

To alleviate traffic congestion along Highway 65 and Interstate 80, improve air quality, provide mobility options and reduce energy consumption. Reducing congestion and improving mobility options will facilitate more economic development. Interstate 80 and Highway 65 in Placer County is one of the most congested corridors in the Sacramento Region. This corridor experiences traffic congestion in all directions several hours a day.

NHS Improvements

☒ YES ☐ NO

Roadway Class

NA

Reversible Lane Analysis

☐ YES ☒ NO

Inc. Sustainable Communities Strategy Goals

☒ YES ☐ NO

Reduce Greenhouse Gas Emissions

☒ YES ☐ NO

Project Outputs			
Category	Outputs	Unit	Total
Rail/ Multi-Modal	Rail cars/ transit vehicles	EA	5
Rail/ Multi-Modal	Station improvements	EA	5

Date 04/27/2021 14:49:50

Additional Information

The Placer-Sacramento Gateway Corridor Phase 1 improvements support the following goals and policies identified in the SACOG 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS):

Goal 1: Build vibrant places for today's and tomorrow's residents.

- Policy 1: Provide incentives, information, tools, technical assistance, and encouragement to support implementation of the Sacramento region's Sustainable Communities Strategy through:
 - o Revitalization of urban, suburban, and rural centers and corridors;
 - o Complete communities that include a balance of homes, jobs, services, amenities, and diverse transportation options; and
 - o Complete streets that provide safe, comfortable, and equitable facilities for people of all ages and abilities to walk, bike, and ride transit.
- Policy 2: Pursue funding opportunities that support the infrastructure improvements needed to support new housing and employment opportunities in existing urban, suburban, and rural communities.

Goal 2: Foster the next generation of mobility solutions.

- Policy 4: Pursue flexibility in state and federal funding sources to enable testing and implementation of innovative mobility solutions that are affordable, accessible, and reduce greenhouse gas emissions
- Policy 7: Support transit agencies and local governments looking to secure funds to improve the frequency, hours of service, and coverage of productive bus service (including bus rapid transit, express bus, and more frequent fixed-route service).
- Policy 8: Support more seamless travel through better traveler information for trip planning, reliable service and coordination between operators for transit, shared mobility and other first/last mile connections.

Goal 4: Build and maintain a safe, resilient, and multimodal transportation system

- Policy 19: Transit expansion, particularly light rail and other fixed infrastructure transit options, should be targeted at communities with supportive land use policies and development patterns that will generate transit ridership and improve the cost recovery rates for transit service.
- Policy 20: Prioritize cost effective safety improvements that will help the region eliminate fatal transportation related accidents.
- Policy 22: Invest in bicycle and pedestrian infrastructure to encourage healthy, active transportation trips and provide recreational opportunities for residents and visitors.
- Policy 23: Prioritize and incentivize transportation investments that benefit environmental justice communities.
- Policy 24: Invest in transportation improvements that improve access to major economic assets and job centers.
- Policy 25: Prioritize investments in transportation improvements that reduce greenhouse gas emissions and vehicle miles traveled.

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
Congestion Reduction	LPPF, LPPC, SCCP	Project Area, Corridor, County, or Regionwide VMT per Capita and Total VMT	Total Miles	22,583,529	22,602,243	-18,714
			VMT per Capita	29.92	29.95	-0.03
	LPPF, LPPC, SCCP	Person Hours of Travel Time Saved	Person Hours	2,991,330	3,009,718	-18,388
			Hours per Capita	3.96	3.99	-0.03
	LPPF, LPPC, SCCP	Daily Vehicle Hours of Delay	Hours	8,281	8,331	-50
	Optional	Percent Change in Non-Single Occupancy Vehicle Travel	%	20.81	20.81	0
Throughput	Optional	Bicyclist/ Pedestrian Screen Line Counts	# of Bikes	195	100	95
			# of Pedestrians	450	230	220
	Optional	Peak Period Person Throughput by Applicable Mode	# of Persons	10,985	10,380	605
	Optional	Passengers Per Vehicle Service Hour	# of Passengers	102	96	6
System Reliability	LPPF, LPPC, SCCP	Peak Period Travel Time Reliability Index	Index	1.02	1.04	-0.02
	LPPF, LPPC, SCCP	Transit Service On-Time Performance	% "On-time"	97.8	94.5	3.3
Air Quality & GHG	LPPF, LPPC, SCCP, TCEP	Particulate Matter	PM 2.5 Tons	1,289.71	1,290	-0.29
			PM 10 Tons	1,204.72	1,205	-0.28
	LPPF, LPPC, SCCP, TCEP	Carbon Dioxide (CO2)	Tons	159,422,178	159,476,158	-53,980
	LPPF, LPPC, SCCP, TCEP	Volatile Organic Compounds (VOC)	Tons	21,338.83	21,348	-9.17
	LPPF, LPPC, SCCP, TCEP	Sulphur Dioxides (SOx)	Tons	1,568.45	1,569	-0.55
	LPPF, LPPC, SCCP, TCEP	Carbon Monoxide (CO)	Tons	488,100.71	488,276	-175.29
	LPPF, LPPC, SCCP, TCEP	Nitrogen Oxides (NOx)	Tons	117,294.04	117,339	-44.96
Safety	LPPF, LPPC, SCCP, TCEP	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries	Number	77.4	77.6	-0.2
	LPPF, LPPC, SCCP, TCEP	Number of Fatalities	Number	9.38	9.83	-0.45
	LPPF, LPPC, SCCP, TCEP	Fatalities per 100 Million VMT	Number	0.11	0.12	-0.01
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries	Number	159.52	163.8	-4.28
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries per 100 Million VMT	Number	1.94	1.99	-0.05
	Optional	Number of Property Damage Only and Non-Serious Injury Collisions	Number	1,966	2,090	-124
	Optional	Accident Cost Savings	Dollars	-95,700,000	0	-95,700,000
Accessibility	LPPF, LPPC, SCCP	Number of Jobs Accessible by Mode	Number	687,439	687,439	0

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
	LPPF, LPPC, SCCP	Number of Destinations Accessible by Mode	Number	833	833	0
	LPPF, LPPC, SCCP	Percent of Population Defined as Low Income or Disadvantaged Within 1/2 Mile of Rail Station, Ferry Terminal, or High-Frequency Bus Stop	%	71.8	70.5	1.3
Economic Development	LPPF, LPPC, SCCP, TCEP	Jobs Created (Direct and Indirect)	Number	1,461	0	1,461
Cost Effectiveness	LPPF, LPPC, SCCP, TCEP	Cost Benefit Ratio	Ratio	2.46	0	2.46

District	County	Route	EA	Project ID	PPNO
03	Placer				1535
Project Title					
PSGC Phase 1 - South Placer Transit					

Existing Total Project Cost (\$1,000s)									Implementing Agency
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	
E&P (PA&ED)	10							10	Placer County Transportation Plannin
PS&E	50							50	City of Roseville
R/W SUP (CT)									City of Roseville
CON SUP (CT)									City of Roseville
R/W									City of Roseville
CON		11,340						11,340	City of Roseville
TOTAL	60	11,340						11,400	
Proposed Total Project Cost (\$1,000s)									Notes
E&P (PA&ED)	10							10	
PS&E	50							50	
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		11,340						11,340	
TOTAL	60	11,340						11,400	

Fund #1:	Local Funds - Local Transportation Funds (Committed)								Program Code
	Existing Funding (\$1,000s)								20.10.400.100
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)	10							10	Placer County Transportation Plannin Western Placer Consolidated Transportation Services Agency (WPCTSA) operating fund allocation to support startup of new transit services for three years.
PS&E	50							50	
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		75						75	
TOTAL	60	75						135	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)	10							10	
PS&E	50							50	
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		75						75	
TOTAL	60	75						135	

Fund #2:	Local Funds - Private Funds (Committed)								Program Code
Existing Funding (\$1,000s)									20.10.400.100
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									City of Roseville Kaiser and Sutter hospitals operating funding contribution to support startup of new transit services for three years.
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		900						900	
TOTAL		900						900	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									Local operating funds to support startup of new transit services for three years.
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		900						900	
TOTAL		900						900	
Fund #3:	CMAQ - Congestion Mitigation (Committed)								Program Code
Existing Funding (\$1,000s)									20.30.010.820
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									City of Roseville CMAQ funds to support startup of new transit services for three years.
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		1,101						1,101	
TOTAL		1,101						1,101	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		1,101						1,101	
TOTAL		1,101						1,101	

Fund #4:	Other State - Low Carbon Transit Operations Program (LCTOP) (Committed)								Program Code
Existing Funding (\$1,000s)									20.30.207.811
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									City of Roseville LCTOP funds to support startup of new transit services for three years.
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		1,689						1,689	
TOTAL		1,689						1,689	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		1,689						1,689	
TOTAL		1,689						1,689	
Fund #5:	Local Funds - Traffic Impact Fees (Committed)								Program Code
Existing Funding (\$1,000s)									20.10.400.100
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									City of Roseville South Placer Regional Transportation Authority (SPRTA) fund allocation to support startup of new transit services for three years.
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		573						573	
TOTAL		573						573	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		573						573	
TOTAL		573						573	

Fund #6:	Local Funds - Fare Revenues (Committed)								Program Code
Existing Funding (\$1,000s)									20.10.400.100
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									City of Roseville Three year estimate of farebox revenue attributable to express bus service to fund operations.
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		1,002						1,002	
TOTAL		1,002						1,002	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		1,002						1,002	
TOTAL		1,002						1,002	
Fund #7:	State SB1 SCCP - Solution for Congested Corridors Program (Committed)								Program Code
Existing Funding (\$1,000s)									30.10.030.100
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									Capital funds for five ZEB buses and battery charging requiring three depot chargers and two on-route chargers.
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		6,000						6,000	
TOTAL		6,000						6,000	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		6,000						6,000	
TOTAL		6,000						6,000	

Complete this page for amendments only					Date 04/27/2021 14:49:50
District	County	Route	EA	Project ID	PPNO
03	Placer				1535

SECTION 1 - All Projects

Project Background

print ePPR for baseline agreement

Programming Change Requested

Reason for Proposed Change

print ePPR for baseline agreement

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

Other Significant Information

SECTION 2 - For SB1 Project Only

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

print ePPR for baseline agreement

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

SECTION 3 - All Projects

Attachments

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

Amendment (Existing Project) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO						Date	04/22/2021 22:48:20
Programs <input type="checkbox"/> LPP-C <input type="checkbox"/> LPP-F <input type="checkbox"/> SCCP <input type="checkbox"/> TCEP <input type="checkbox"/> STIP <input type="checkbox"/> Other							
District	EA	Project ID	PPNO	Nominating Agency			
03			1534	Caltrans HQ			
County	Route	PM Back	PM Ahead	Co-Nominating Agency			
Sacramento				Placer County Transportation Planning Agency, Sacramento			
				MPO	Element		
				SACOG	Mass Transit (MT)		
Project Manager/Contact			Phone	Email Address			
Erik J. Reitz			916-321-2959	ereitz@sacRT.com			

Project Title

PSGC Phase 1 – Watt/I-80 Light Rail Station

Location (Project Limits), Description (Scope of Work)

In northeast Sacramento County, in North Highlands just before the Interstate 80, Business 80 interchange. The focus of the project is to improve bicycle, pedestrian and bus access from the Watt Ave Station Plaza (on the west side of Watt Ave) to the Watt/I-80 Light Rail Station. Improvement include expanding the Watt Ave Station Plaza, including a new stairway connecting to the light rail platform, new pedestrian lighting, removing concrete barriers, adding wayfinding signage and adding passenger amenities such as seating, shade/rain shelters and landscape buffers (with guardrail) between the plaza and vehicular traffic. The project will also increasing pedestrian amenities on the west side of Watt Ave., including wider sidewalks, pedestrian-level lighting, landscape buffers and new ornamental metal security fencing along the overcrossing.

Component	Implementing Agency
PA&ED	Sacramento Regional Transit District
PS&E	Sacramento Regional Transit District
Right of Way	Sacramento Regional Transit District
Construction	Sacramento Regional Transit District

Legislative Districts

Assembly:	8	Senate:	6	Congressional:	6
-----------	---	---------	---	----------------	---

Project Milestone	Existing	Proposed
Project Study Report Approved		
Begin Environmental (PA&ED) Phase	07/01/2020	07/01/2020
Circulate Draft Environmental Document Document Type CE/CE	10/01/2020	10/01/2020
Draft Project Report	10/10/2020	10/10/2020
End Environmental Phase (PA&ED Milestone)	01/01/2021	06/01/2021
Begin Design (PS&E) Phase	07/01/2021	08/01/2021
End Design Phase (Ready to List for Advertisement Milestone)	12/01/2021	01/01/2022
Begin Right of Way Phase	07/06/2020	07/06/2021
End Right of Way Phase (Right of Way Certification Milestone)	10/26/2020	10/26/2021
Begin Construction Phase (Contract Award Milestone)	03/01/2022	05/01/2022
End Construction Phase (Construction Contract Acceptance Milestone)	06/30/2023	06/30/2023
Begin Closeout Phase	06/30/2023	12/01/2023
End Closeout Phase (Closeout Report)	12/01/2023	05/01/2024

Date 04/22/2021 22:48:20

Purpose and Need

The Watt/I-80 Transit Center serves as a major transfer hub for riders accessing jobs, housing, schools, and other destinations throughout the City and County of Sacramento along Regional Transit's (SacRT) Blue Line. However, a combination of factors including poor pedestrian, bicycle, and vehicle access, aging infrastructure, and the presence of crime have led to an unsafe, unsanitary, and overall unpleasant rider experience at the Watt/I-80 Light Rail Station and Transit Center.

NHS Improvements

☐ YES ☒ NO

Roadway Class

NA

Reversible Lane Analysis

☐ YES ☒ NO

Inc. Sustainable Communities Strategy Goals

☒ YES ☐ NO

Reduce Greenhouse Gas Emissions

☒ YES ☐ NO

Project Outputs			
Category	Outputs	Unit	Total
Rail/ Multi-Modal	Station improvements	EA	1

Date 04/22/2021 22:48:20

Additional Information

The Placer-Sacramento Gateway Corridor Phase 1 improvements support the following goals and policies identified in the SACOG 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS):

Goal 1: Build vibrant places for today's and tomorrow's residents.

Policy 1: Provide incentives, information, tools, technical assistance, and encouragement to support implementation of the Sacramento region's Sustainable Communities Strategy through:

Revitalization of urban, suburban, and rural centers and corridors;

Complete communities that include a balance of homes, jobs, services, amenities, and diverse transportation options; and

Complete streets that provide safe, comfortable, and equitable facilities for people of all ages and abilities to walk, bike, and ride transit.

Policy 2: Pursue funding opportunities that support the infrastructure improvements needed to support new housing and employment opportunities in existing urban, suburban, and rural communities.

Goal 2: Foster the next generation of mobility solutions.

Policy 4: Pursue flexibility in state and federal funding sources to enable testing and implementation of innovative mobility solutions that are affordable, accessible, and reduce greenhouse gas emissions

Policy 7: Support transit agencies and local governments looking to secure funds to improve the frequency, hours of service, and coverage of productive bus service (including bus rapid transit, express bus, and more frequent fixed-route service).

Policy 8: Support more seamless travel through better traveler information for trip planning, reliable service and coordination between operators for transit, shared mobility and other first/last mile connections.

Goal 4: Build and maintain a safe, resilient, and multi-modal transportation system

Policy 19: Transit expansion, particularly light rail and other fixed infrastructure transit options, should be targeted at communities with supportive land use policies and development patterns that will generate transit ridership and improve the cost recovery rates for transit service.

Policy 20: Prioritize cost effective safety improvements that will help the region eliminate fatal transportation related accidents.

Policy 22: Invest in bicycle and pedestrian infrastructure to encourage healthy, active transportation trips and provide recreational opportunities for residents and visitors.

Policy 23: Prioritize and incentivize transportation investments that benefit environmental justice communities.

Policy 24: Invest in transportation improvements that improve access to major economic assets and job centers.

Policy 25: Prioritize investments in transportation improvements that reduce greenhouse gas emissions and vehicle miles traveled.

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
Congestion Reduction	LPPF, LPPC, SCCP	Project Area, Corridor, County, or Regionwide VMT per Capita and Total VMT	Total Miles	22,583,529	22,602,243	-18,714
			VMT per Capita	29.92	29.95	-0.03
	LPPF, LPPC, SCCP	Person Hours of Travel Time Saved	Person Hours	2,991,330	3,009,718	-18,388
			Hours per Capita	3.96	3.99	-0.03
	LPPF, LPPC, SCCP	Daily Vehicle Hours of Delay	Hours	8,281	8,331	-50
	Optional	Percent Change in Non-Single Occupancy Vehicle Travel	%	20.81	20.81	0
Throughput	Optional	Bicyclist/ Pedestrian Screen Line Counts	# of Bikes	450	230	220
			# of Pedestrians	195	100	95
	Optional	Peak Period Person Throughput by Applicable Mode	# of Persons	10,985	10,380	605
	Optional	Passengers Per Vehicle Service Hour	# of Passengers	102	96	6
System Reliability	LPPF, LPPC, SCCP	Peak Period Travel Time Reliability Index	Index	1.02	1.04	-0.02
	LPPF, LPPC, SCCP	Transit Service On-Time Performance	% "On-time"	97.8	94.5	3.3
Air Quality & GHG	LPPF, LPPC, SCCP, TCEP	Particulate Matter	PM 2.5 Tons	1,204.72	1,205	-0.28
			PM 10 Tons	1,289.71	1,290	-0.29
	LPPF, LPPC, SCCP, TCEP	Carbon Dioxide (CO2)	Tons	159,422,178	159,476,158	-53,980
	LPPF, LPPC, SCCP, TCEP	Volatile Organic Compounds (VOC)	Tons	21,338.83	21,348	-9.17
	LPPF, LPPC, SCCP, TCEP	Sulphur Dioxides (SOx)	Tons	1,568.45	1,569	-0.55
	LPPF, LPPC, SCCP, TCEP	Carbon Monoxide (CO)	Tons	488,100.71	488,276	-175.29
	LPPF, LPPC, SCCP, TCEP	Nitrogen Oxides (NOx)	Tons	117,294.04	117,339	-44.96
Safety	LPPF, LPPC, SCCP, TCEP	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries	Number	77.4	77.6	-0.2
	LPPF, LPPC, SCCP, TCEP	Number of Fatalities	Number	9.38	9.83	-0.45
	LPPF, LPPC, SCCP, TCEP	Fatalities per 100 Million VMT	Number	0.11	0.012	0.098
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries	Number	159.52	163.8	-4.28
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries per 100 Million VMT	Number	1.94	1.99	-0.05
	Optional	Number of Property Damage Only and Non-Serious Injury Collisions	Number	1,966	2,090	-124
	Optional	Accident Cost Savings	Dollars	-95,700,000	0	-95,700,000
Accessibility	LPPF, LPPC, SCCP	Number of Jobs Accessible by Mode	Number	687,439	687,439	0

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
	LPPF, LPPC, SCCP	Number of Destinations Accessible by Mode	Number	360	360	0
	LPPF, LPPC, SCCP	Percent of Population Defined as Low Income or Disadvantaged Within 1/2 Mile of Rail Station, Ferry Terminal, or High-Frequency Bus Stop	%	71.8	70.5	1.3
Economic Development	LPPF, LPPC, SCCP, TCEP	Jobs Created (Direct and Indirect)	Number	1,461	0	1,461
Cost Effectiveness	LPPF, LPPC, SCCP, TCEP	Cost Benefit Ratio	Ratio	2.46	0	2.46

District	County	Route	EA	Project ID	PPNO
03	Sacramento				1534

Project Title

PSGC Phase 1 – Watt/I-80 Light Rail Station

Existing Total Project Cost (\$1,000s)									Implementing Agency
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	
E&P (PA&ED)									Sacramento Regional Transit District
PS&E									Sacramento Regional Transit District
R/W SUP (CT)									Sacramento Regional Transit District
CON SUP (CT)									Sacramento Regional Transit District
R/W									Sacramento Regional Transit District
CON		9,846						9,846	Sacramento Regional Transit District
TOTAL		9,846						9,846	
Proposed Total Project Cost (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		9,846						9,846	
TOTAL		9,846						9,846	

Fund #1:	State SB1 SCCP - Solution for Congested Corridors Program (Committed)								Program Code
	Existing Funding (\$1,000s)								30.10.030.100
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		7,937						7,937	
TOTAL		7,937						7,937	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		7,937						7,937	
TOTAL		7,937						7,937	

Fund #2:	CMAQ - Congestion Mitigation (Committed)								Program Code
Existing Funding (\$1,000s)									20.30.010.820
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									Sacramento Area Council of Govern Currently requesting these funds from Sacramento Area Council of Governments Regional Local funding Round
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		1,909						1,909	
TOTAL		1,909						1,909	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		1,909						1,909	
TOTAL		1,909						1,909	

Complete this page for amendments only

Date 04/22/2021 22:48:20

District	County	Route	EA	Project ID	PPNO
03	Sacramento				1534

SECTION 1 - All Projects

Project Background

N/A

Programming Change Requested

Reason for Proposed Change

Minor Changes in dates due to additional time needed to get final NEPA clearance.

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

Other Significant Information

SECTION 2 - For SB1 Project Only

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

n/a

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

SECTION 3 - All Projects

Attachments

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

Amendment (Existing Project) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					Date	06/10/2021 14:03:13
Programs <input type="checkbox"/> LPP-C <input type="checkbox"/> LPP-F <input type="checkbox"/> SCCP <input type="checkbox"/> TCEP <input type="checkbox"/> STIP <input type="checkbox"/> Other						
District	EA	Project ID	PPNO	Nominating Agency		
03		0319000208	1533	Caltrans HQ		
County	Route	PM Back	PM Ahead	Co-Nominating Agency		
Sacramento				Placer County Transportation Planning Agency, Sacramento		
				MPO	Element	
				SACOG	Local Assistance	
Project Manager/Contact			Phone	Email Address		
Melissa Wright			916-874-4243	wrightme@saccounty.net		

Project Title

PSGC Phase 1 - Watt Avenue Complete Streets

Location (Project Limits), Description (Scope of Work)

In Sacramento County, on Watt Avenue, from I-80 westbound ramps to Roseville Rd. Between Orange Grove Avenue and Roseville Rd, construct buffered bike lanes, separated pedestrian-friendly sidewalks, landscaped medians, improved transit facilities for pedestrians including bus turnouts, improve street lighting, improve signalized intersections, and other streetscape amenities to encourage mobility by active modes of transportation and provide community identity. Between Orange Grove Avenue to I-80 westbound ramps, extend class 2 bike lane and sidewalk improvements.

Component	Implementing Agency
PA&ED	Sacramento County
PS&E	Sacramento County
Right of Way	Sacramento County
Construction	Sacramento County

Legislative Districts

Assembly:	8	Senate:	6	Congressional:	6
-----------	---	---------	---	----------------	---

Project Milestone	Existing	Proposed
Project Study Report Approved		
Begin Environmental (PA&ED) Phase	01/01/2017	01/01/2017
Circulate Draft Environmental Document	08/01/2020	04/01/2020
Draft Project Report	09/01/2020	04/23/2020
End Environmental Phase (PA&ED Milestone)	09/15/2020	07/21/2020
Begin Design (PS&E) Phase	10/01/2020	08/01/2020
End Design Phase (Ready to List for Advertisement Milestone)	08/31/2022	12/31/2022
Begin Right of Way Phase	08/01/2020	09/01/2020
End Right of Way Phase (Right of Way Certification Milestone)	06/30/2022	10/31/2022
Begin Construction Phase (Contract Award Milestone)	12/01/2022	04/03/2023
End Construction Phase (Construction Contract Acceptance Milestone)	12/31/2024	12/31/2024
Begin Closeout Phase	01/01/2025	01/01/2025
End Closeout Phase (Closeout Report)	12/31/2025	12/31/2025

Date 06/10/2021 14:03:13

Purpose and Need

This project will improve bicycle and pedestrian connections to encourage active modes uses between the Watt Ave Light Rail Station and nearby locations (housing, McClellan Business Park, local businesses) and all destinations on the light rail corridor. The Project is located in an Environmental Justice community which has higher than average active mode users. Improvements will also assist in attracting new development in the Triangle Gateway District Center and McClellan Business Park.

NHS Improvements	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Roadway Class	NA	Reversible Lane Analysis	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Inc. Sustainable Communities Strategy Goals	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Reduce Greenhouse Gas Emissions	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		

Project Outputs			
Category	Outputs	Unit	Total
ADA Improvements	Repair/upgrade curb ramp	EA	28
Active Transportation	Bicycle lane-miles	Miles	1.4
ADA Improvements	Upgrade detectable warning surface	SQFT	66
ADA Improvements	Modify crosswalk	LF	1,200
Pavement (lane-miles)	Local road - rehabilitated Miles	Miles	4.2
ADA Improvements	Relocate pedestrian push button posts	EA	20
ADA Improvements	New sidewalk	LF	7,400
ADA Improvements	Install new detectable warning surface	SQFT	102

Date 06/10/2021 14:03:13

Additional Information

The project received CEQA clearance (MND) in 7/13/2018. The Project received federal grant funds in 2018 and 2019 to construct a subsection of the project (I-80 ramps and Winona Way) which will be incorporated into this larger project because the requested Solutions for Congested Corridor funds were awarded. Minor scope changes resulted in an updated CEQA document (MND) being approved on 7/14/2020. The NEPA CE for the full project length was approved July 21, 2020.

Goal 1: Build vibrant places for today's and tomorrow's residents.

- Policy 1: Provide incentives, information, tools, technical assistance, and encouragement to support implementation of the Sacramento region's Sustainable Communities Strategy through:
 - o Revitalization of urban, suburban, and rural centers and corridors;
 - o Complete communities that include a balance of homes, jobs, services, amenities, and diverse transportation options; and
 - o Complete streets that provide safe, comfortable, and equitable facilities for people of all ages and abilities to walk, bike, and ride transit.
- Policy 2: Pursue funding opportunities that support the infrastructure improvements needed to support new housing and employment opportunities in existing urban, suburban, and rural communities.

Goal 2: Foster the next generation of mobility solutions.

- Policy 4: Pursue flexibility in state and federal funding sources to enable testing and implementation of innovative mobility solutions that are affordable, accessible, and reduce greenhouse gas emissions
- Policy 7: Support transit agencies and local governments looking to secure funds to improve the frequency, hours of service, and coverage of productive bus service (including bus rapid transit, express bus, and more frequent fixed-route service).
- Policy 8: Support more seamless travel through better traveler information for trip planning, reliable service and coordination between operators for transit, shared mobility and other first/last mile connections.

Goal 4: Build and maintain a safe, resilient, and multimodal transportation system

- Policy 19: Transit expansion, particularly light rail and other fixed infrastructure transit options, should be targeted at communities with supportive land use policies and development patterns that will generate transit ridership and improve the cost recovery rates for transit service.
- Policy 20: Prioritize cost effective safety improvements that will help the region eliminate fatal transportation related accidents.
- Policy 22: Invest in bicycle and pedestrian infrastructure to encourage healthy, active transportation trips and provide recreational opportunities for residents and visitors.
- Policy 23: Prioritize and incentivize transportation investments that benefit environmental justice communities.
- Policy 24: Invest in transportation improvements that improve access to major economic assets and job centers.
- Policy 25: Prioritize investments in transportation improvements that reduce greenhouse gas emissions and vehicle miles traveled.

Schedule Update, 6/9/2021 :

- 1) Several dates prior to April were revised to actuals (and earlier than prior schedule).
- 2) Right of Way cert date was moved out from 6/2022 to 10/22 due to possible RON/order of possession could be needed. This bumps out the end design phase.
- 3) Begin Construction was moved to 4/1/23 – to reflect the actual start date which will be in spring since it's hard to start construction during rainy season and it gives a buffer to the County if it's a particularly rainy winter that year.

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
Congestion Reduction	LPPF, LPPC, SCCP	Project Area, Corridor, County, or Regionwide VMT per Capita and Total VMT	Total Miles	22,583,529	22,602,243	-18,714
			VMT per Capita	29.92	29.95	-0.03
	LPPF, LPPC, SCCP	Person Hours of Travel Time Saved	Person Hours	2,991,330	3,009,718	-18,388
			Hours per Capita	3.96	3.99	-0.03
	LPPF, LPPC, SCCP	Daily Vehicle Hours of Delay	Hours	8,281	8,331	-50
	Optional	Percent Change in Non-Single Occupancy Vehicle Travel	%	20.81	20.81	0
Throughput	Optional	Bicyclist/ Pedestrian Screen Line Counts	# of Bikes	195	100	95
			# of Pedestrians	450	230	220
	Optional	Peak Period Person Throughput by Applicable Mode	# of Persons	10,985	10,380	605
	Optional	Passengers Per Vehicle Service Hour	# of Passengers	102	96	6
System Reliability	LPPF, LPPC, SCCP	Peak Period Travel Time Reliability Index	Index	1.02	1.04	-0.02
	LPPF, LPPC, SCCP	Transit Service On-Time Performance	% "On-time"	97.8	94.5	3.3
Air Quality & GHG	LPPF, LPPC, SCCP, TCEP	Particulate Matter	PM 2.5 Tons	1,204.72	1,205	-0.28
			PM 10 Tons	1,289.71	1,290	-0.29
	LPPF, LPPC, SCCP, TCEP	Carbon Dioxide (CO2)	Tons	159,422,178	159,476,158	-53,980
	LPPF, LPPC, SCCP, TCEP	Volatile Organic Compounds (VOC)	Tons	21,338.83	21,348	-9.17
	LPPF, LPPC, SCCP, TCEP	Sulphur Dioxides (SOx)	Tons	1,568.45	1,569	-0.55
	LPPF, LPPC, SCCP, TCEP	Carbon Monoxide (CO)	Tons	488,100.71	488,276	-175.29
	LPPF, LPPC, SCCP, TCEP	Nitrogen Oxides (NOx)	Tons	117,294.04	117,339	-44.96
Safety	LPPF, LPPC, SCCP, TCEP	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries	Number	77.4	77.6	-0.2
	LPPF, LPPC, SCCP, TCEP	Number of Fatalities	Number	9.38	9.83	-0.45
	LPPF, LPPC, SCCP, TCEP	Fatalities per 100 Million VMT	Number	0.11	0.12	-0.01
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries	Number	159.52	163.8	-4.28
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries per 100 Million VMT	Number	1.94	1.99	-0.05
	Optional	Number of Property Damage Only and Non-Serious Injury Collisions	Number	1,966	2,090	-124
	Optional	Accident Cost Savings	Dollars	-95,700,000	0	-95,700,000
Accessibility	LPPF, LPPC, SCCP	Number of Jobs Accessible by Mode	Number	687,439	687,439	0

Performance Indicators and Measures						
Measure	Required For	Indicator/Measure	Unit	Build	Future No Build	Change
	LPPF, LPPC, SCCP	Number of Destinations Accessible by Mode	Number	360	360	0
	LPPF, LPPC, SCCP	Percent of Population Defined as Low Income or Disadvantaged Within 1/2 Mile of Rail Station, Ferry Terminal, or High-Frequency Bus Stop	%	71.8	70.5	1.3
Economic Development	LPPF, LPPC, SCCP, TCEP	Jobs Created (Direct and Indirect)	Number	1,461	0	1,461
Cost Effectiveness	LPPF, LPPC, SCCP, TCEP	Cost Benefit Ratio	Ratio	2.46	0	2.46

District	County	Route	EA	Project ID	PPNO
03	Sacramento			0319000208	1533
Project Title					
PSGC Phase 1 - Watt Avenue Complete Streets					

Existing Total Project Cost (\$1,000s)									Implementing Agency
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	
E&P (PA&ED)	144							144	Sacramento County
PS&E	1,540							1,540	Sacramento County
R/W SUP (CT)									Sacramento County
CON SUP (CT)									Sacramento County
R/W	1,216							1,216	Sacramento County
CON			12,840					12,840	Sacramento County
TOTAL	2,900		12,840					15,740	
Proposed Total Project Cost (\$1,000s)									Notes
E&P (PA&ED)	144							144	
PS&E	1,540							1,540	
R/W SUP (CT)									
CON SUP (CT)									
R/W	1,216							1,216	
CON			12,840					12,840	
TOTAL	2,900		12,840					15,740	

Fund #1:	State SB1 SCCP - Solution for Congested Corridors Program (Committed)								Program Code
Existing Funding (\$1,000s)									20.30.210.350
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			8,100					8,100	
TOTAL			8,100					8,100	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			8,100					8,100	
TOTAL			8,100					8,100	

Fund #2:	RSTP - STP Local (Committed)								Program Code
Existing Funding (\$1,000s)									20.30.010.810
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									Sacramento Area Council of Governm
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			1,984					1,984	
TOTAL			1,984					1,984	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			1,984					1,984	
TOTAL			1,984					1,984	
Fund #3:	Other Fed - Surface Transportation Program (Committed)								Program Code
Existing Funding (\$1,000s)									20.30.010.300
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)	144							144	Funding from Sacramento Housing and Redevelopment Agency's allocation of HUD funding
PS&E	400							400	
R/W SUP (CT)									
CON SUP (CT)									
R/W	400							400	
CON									
TOTAL	944							944	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)	144							144	
PS&E	400							400	
R/W SUP (CT)									
CON SUP (CT)									
R/W	400							400	
CON									
TOTAL	944							944	

Fund #4:	Local Funds - Local Measure (Committed)								Program Code
Existing Funding (\$1,000s)									20.10.400.100
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									Sacramento Transportation Authority Measure A
PS&E	640							640	
R/W SUP (CT)									
CON SUP (CT)									
R/W	500							500	
CON			2,756					2,756	
TOTAL	1,140		2,756					3,896	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E	640							640	
R/W SUP (CT)									
CON SUP (CT)									
R/W	500							500	
CON			2,756					2,756	
TOTAL	1,140		2,756					3,896	
Fund #5:	CMAQ - Congestion Mitigation (Committed)								Program Code
Existing Funding (\$1,000s)									20.30.010.820
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27+	Total	Funding Agency
E&P (PA&ED)									Sacramento Area Council of Governm
PS&E	500							500	
R/W SUP (CT)									
CON SUP (CT)									
R/W	316							316	
CON									
TOTAL	816							816	
Proposed Funding (\$1,000s)									Notes
E&P (PA&ED)									
PS&E	500							500	
R/W SUP (CT)									
CON SUP (CT)									
R/W	316							316	
CON									
TOTAL	816							816	

Complete this page for amendments only				Date 06/10/2021 14:03:13	
District	County	Route	EA	Project ID	PPNO
03	Sacramento			0319000208	1533

SECTION 1 - All Projects

Project Background

print ePPR for baseline agreement

Programming Change Requested

Reason for Proposed Change

print ePPR for baseline agreement

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

Other Significant Information

SECTION 2 - For SB1 Project Only

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

print ePPR for baseline agreement

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

SECTION 3 - All Projects

Attachments

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

EXHIBIT B: Project Reports
TO
PROJECT BASELINE AGREEMENT

Placer-Sacramento Gateway - Phase 1

I-80 Auburn Boulevard Ramp Meter

TBD: Appendix A

I-80 Transit Reliability

<https://pctpa.net/library/I-80AuxLanes/Final/FinalPR.pdf>

Auburn Boulevard Complete Streets – Phase 2

Auburn Final ISMND -

[https://www.citrusheights.net/DocumentCenter/View/4225/Auburn-Final ISMND 2015 1111--Approved-by-PC-111815?bidId=](https://www.citrusheights.net/DocumentCenter/View/4225/Auburn-Final-ISMND-2015-1111--Approved-by-PC-111815?bidId=)

Dry Creek Greenway East

Feasibility Study - https://www.roseville.ca.us/government/departments/public_works/biking_walking/current_projects/dry_creek_greenway_project_-_east

Watt Avenue Complete Streets – Phase 1

<https://sacdot.sacounty.net/Documents/Projects/Watt%20Ave%20Complete%20Streets/Watt%20Ave%20Complete%20Streets%20Project%20Report.pdf>

South Placer Transit

Refer to Appendix B

Watt/I-80 Light Rail Station

Not applicable

Light Rail Modernization LRVs

Not applicable

Light Rail Modernization Stations Phase 1

Not applicable

APPENDIX A
TO
PROJECT BASELINE AGREEMENT

Placer-Sacramento Gateway - Phase 1

I-80 AUBURN BOULEVARD RAMP METER
Project Report

Project Report

FOR PROJECT APPROVAL



On Route 80
in Placer County in the City of Roseville
at the EB onramp from Auburn Blvd

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

John Ballantyne
JOHN BALLANTYNE, Chief, North Region Right of Way

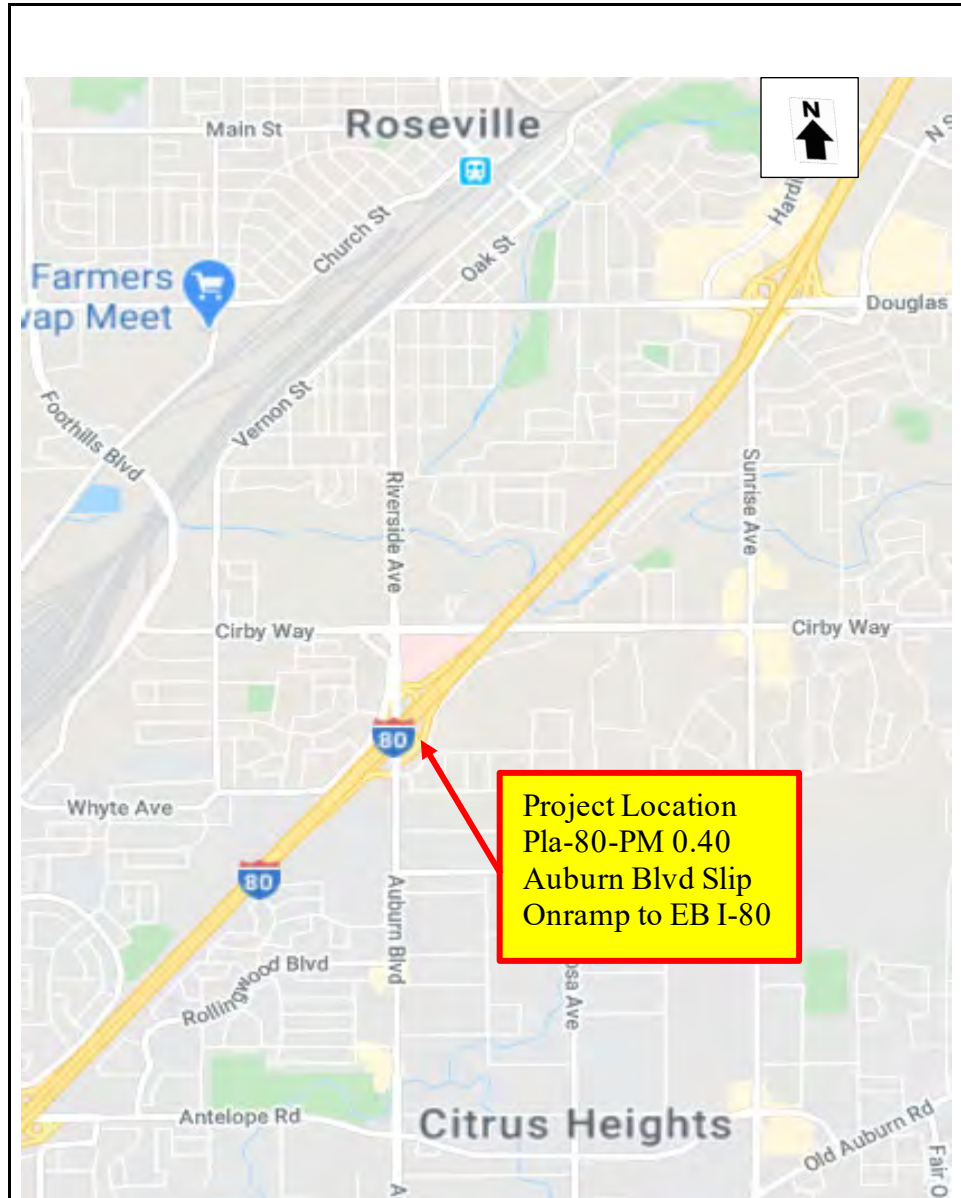
APPROVAL RECOMMENDED:

Daniel Kwong
Daniel Kwong, Project Manager

PROJECT APPROVED:

Amarjeet S. Benipal 4/20/2021
AMARJEET S. BENIPAL, District Director Date

Vicinity Map



April 2021

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



REGISTERED CIVIL ENGINEER

3/26/2021

DATE

Table of Contents

1. INTRODUCTION	1
2. RECOMMENDATION	2
3. BACKGROUND.....	2
4. PURPOSE AND NEED	2
4A. Problem, Deficiencies, Justification.....	2
4B. Regional and System Planning	3
4C. Traffic	3
5. ALTERNATIVES.....	4
5A. Viable Alternative.....	4
5B. Rejected Alternative.....	4
6. CONSIDERATIONS REQUIRING DISCUSSION.....	5
6A. Hazardous Waste.....	5
6B. Value Analysis	5
6C. Resource Conservation.....	5
6D. Right of Way	5
6E. Environmental Compliance	5
6F. Air Quality Conformity	6
6G. Title VI Considerations.....	6
6H. Noise Abatement Decision Report.....	6
6I. Transportation Management Plan	6
6J. Storm Water Compliance.....	6
6K. Highway Planting and Irrigation	6
7. OTHER CONSIDERATIONS AS APPROPRIATE.....	7
7A. Permits	7
7B. Drainage	7
7C. Complete Streets.....	7
7D. Materials and/or disposal site.....	7
7E. Reduce Greenhouse Gas (GHG) Emissions.....	7
7F. Climate Change.....	7
8. FUNDING, PROGRAMMING AND ESTIMATE	8

9. DELIVERY SCHEDULE.....	9
10. RISKS.....	9
11. EXTERNAL AGENCY COORDINATION	9
12. PROJECT REVIEWS	9
13. PROJECT PERSONNEL	10
14. ATTACHMENTS.....	10

1. INTRODUCTION

Project Description:

This project proposes to modify the existing ramp meter located at eastbound (EB) Interstate 80(I-80) slip onramp from Auburn Blvd by metering the High Occupancy Vehicles (HOV) Preferential Lane. See Title Sheet & Preliminary Layout, Attachment A.

EB I-80 at Auburn Blvd onramp experiences merging, safety and recurrent congestion problems during the afternoon commute peak hour period. Ramp metering is a traffic management strategy to regulate the volume of traffic and spacing of vehicles entering a freeway corridor. This strategy is used to maximize the efficiency of the freeway and improve mobility, thereby minimizing the total delay within the transportation corridor. Ramp metering also maintains smoother and safer merging operations which improve safety by reducing rear-end and sideswipe collisions.

The capital cost estimate for this project is \$349,000. Construction capital and support for this project is funded from the Senate Bill 1, 2020 Solutions for Congestion Corridors Program (SCCP) as part of the Placer-Sacramento Gateway Corridor Phase 1 list of projects.

Project Limits	03-PLA-0.4	
Number of Alternatives	2, including the "No-Build" alternative	
	Current Cost Estimate:	Escalated Cost Estimate:
Capital Outlay Support		\$330,000
Capital Outlay Construction	\$338,000	\$349,000
Capital Outlay Right-of-Way	-	-
Funding Source	SCCP & CMAQ	
Funding Year	2021/22	
Type of Facility	Freeway	
SHOPP Project Output	1 Transportation Management System	
Environmental Determination or Document	Categorical Exemption (CE) for CEQA, Categorical Exclusion (CE) for NEPA	
Legal Description	In Placer County on I-80 in the City of Roseville at the Auburn Blvd slip onramp.	
Project Development Category	5	

2. RECOMMENDATION

It is recommended that this project be approved as proposed using viable alternative and proceed to the design phase.

3. BACKGROUND

I-80 traverses from the Bay Area and through the cities of Davis, Sacramento, Roseville, Auburn, Colfax, and Truckee, continuing through Reno. I-80 within the project limits consists of five 12-ft lanes and 8-ft to 10-ft shoulders in each direction. EB I-80 at Auburn Blvd slip on ramp currently has two metered lanes & a third unmetered HOV lane.

District 3 Freeway Operations identified deficiencies related to delays at EB I-80 at Auburn Blvd slip onramp. These problems are caused by uncontrolled HOV traffic and violators using the HOV lane entering the freeway at Auburn Blvd slip onramp. Metering the existing HOV preferential lane is needed at this location to improve mainline operations and reduce collisions. Per Ramp Meter Design Manual (RMDM) 2016 "HOV preferential lanes should be provided wherever ramp meters are installed, and each HOV preferential lane should be metered".

4. PURPOSE AND NEED

A. Problem, Deficiencies, Justification

Purpose:

The purpose of this project is to maximize the efficiency of the existing ramp meter, to help relieve traffic congestion on the freeway and decrease peak hours of delay and improve safety.

Need:

EB I-80 at southbound (SB) Auburn Blvd slip onramp experiences congestion problems during the afternoon commute peak hour period.

Currently, the existing HOV preferential lane is unmetered, and violators use the HOV lane entering the freeway which causes recurrent congestion contributing to increased delay.

B. Regional and System Planning

The Statewide 2017 Ramp Metering Development Plan (RMDP) was prepared by the Division of Traffic Operations, the Division of Transportation Planning, and the 12 Districts, in accordance with Deputy Directive 35 R-1, and should be updated every two years. The RMDP will be used as an information tool to work with Caltrans internal functional units, and regional and local partner agencies to ensure that ramp metering projects are included in planning and programming documents for implementation. The RMDP is a comprehensive report that identifies existing and planned ramp metering locations.

Per RMDM 2016, "HOV preferential lanes should be provided wherever ramp meters are installed, and each HOV preferential lane should be metered".

C. Traffic

Current and Forecasted Traffic

Caltrans District 3 Office of Travel Forecasting and Modeling provided a Traffic Analysis in March 2021. Summary of the data is shown below:

Traffic Analysis Summary

	AADT	PEAK HOUR	Traffic Index (TI)	ESAL
EB I-80 Slip onramp From Auburn Blvd				
Base Year 2019	5,200	1,100	9	1,000,000
Construction Year 2022	5,400	1,100	9	1,000,000
2040	6,800	1,400	10	2,424,000
2042	6,800	1,400	10	2,424,000

Based on a truck classification count collected at EB I-80 at Auburn Blvd slip on ramp, the heavy vehicle percentage for I-80 was assumed to be 5%.

Collision Rates

Collision rates were calculated for a three-year period from July 1, 2017 to June 30, 2020 and compared to the statewide average utilizing collision data from the Traffic Accident Surveillance and Analysis System (TASAS). State collision records show that the average actual collision rate is 0.62 times the average collision rate and below the statewide average rate. There were a total of six reported collisions; three of which resulted in injuries.

Collision Rate Summary

Number of Collisions				Actual Rates (Per Million vehicles)			Average Rates (Per Million vehicles)		
Total	Fatal	F+I	Multi Veh	Fatal	F+I	Total	Fatal	F+I	Total
6	0	3	5	0	0.20	0.39	0.002	0.23	0.63

5. ALTERNATIVES**5A. Viable Alternative**

The viable alternative proposes to modify the existing ramp meter located at EB I-80 slip onramp from Auburn Blvd.

EB I-80 Slip onramp from Auburn Blvd:

The onramp at this location is an existing three-lane ramp. The existing ramp meter will be modified by extending the existing limit line to cover all three lanes including the HOV preferential lane and replacing the existing standard mast arm ramp meter signal pole with mast arm ramp meter signal pole with a rotating base.

The ramp meter controller and electronic equipment will be connected to the district ramp metering system, which will be monitored from the Sacramento Regional Traffic Management Center in Rancho Cordova. The installation will meter traffic on the ramp and monitor traffic volumes on the mainline and onramp, if present. The ramp meter controllers will transmit and receive data by way of dedicated phone or fiber optic lines, if available. The real-time traffic monitoring capability can be used for traffic incident detection.

See the Project Cost Estimate, Attachment B, for specific work items included in this project.

5B. Rejected Alternative**No-Build Alternative**

This alternative does not meet the need and purpose of this project. The existing facility within the project limits will experience an increase in traffic congestion and vehicle delay. The existing condition will not be able to accommodate traffic demands.

6. CONSIDERATIONS REQUIRING DISCUSSION

6A. Hazardous Waste

Minor hazardous waste/material issues including, aerially deposited lead, treat wood waste, and thermoplastic/paint striping have been identified for the project as proposed. Relevant Standard Special Provision (SSPs) and Non-Standard Special Provisions (NSSPs) will be included in the final project PS&E and listing packages to fully address these issues. See a Hazardous Waste Initial Site Assessment (ISA) Sheet, **Attachment I**.

6B. Value Analysis

A value analysis study was not conducted because the project is below the Caltrans cost threshold of \$25 million or more for roadway projects.

6C. Resource Conservation

The contractor should salvage and recycle when that option is available.

6D. Right-of-Way Issues

The project improvements are all within existing State Right-of-Way. No new Right-of-Way will be required. A Right of Way Data Sheet (RWDS) was prepared for this project and all the details are discussed in the data sheet (**See Attachment C**).

Utilities:

District Utility Engineering Workgroup (UEW) has completed Utility investigation. Utility conflicts are not expected with proposed scope of work. Caltrans utilities do exist within the scope of work. High priority utilities are not anticipated. Utility relocation is not expected since the ramp meter and associated facilities may be adjusted in the field during construction to avoid any utility conflicts.

Railroad Involvement:

There is no railroad involvement in this project.

6E. Environmental Compliance

The project requires a Categorical Exemption for CEQA and a Categorical Exclusion for NEPA (CE/CE). Environmental permits are not anticipated.

See Environmental Document Sheet, **Attachment D**.

6F. Air Quality Conformity

This project is exempt from all air quality conformity analysis requirements per Table 2 of 40 Code of Federal Regulations (CFR) §93.126, subsection "Safety" ("Projects that correct, improve, or eliminate a hazardous location or feature"). Conformity requirements do not apply.

6G. Title VI Considerations

All considerations of Title VI of the Civil Rights Act of 1964 shall be evaluated in the development of this project.

6H. Noise Abatement Decision Report

This project meets the criteria for a Type III project as defined in 23CRF772. Traffic noise impacts are not anticipated, and a detailed noise study report is not required.

6I. Transportation Management Plan

Construction time for the proposed work is estimated as 20 working days, out of which 15 days are required for traffic control. Work is expected to be done at night with ramp closures. Portable Changeable Message Signs (PCMS) will be used to notify motorists of construction zone activities. Coordinating with projects adjacent to or within the limits of this project will be required to avoid conflicts. Work at these locations may require assistance of Construction Zone Enhanced Enforcement Program (COZEEP), but full time COZEEP presence is not anticipated.

District 3 Traffic Management Planning has prepared a Transportation Management Plan (TMP) Datasheet for this project. The TMP requirements will be incorporated into the project design during Plans Specifications and Estimate (PS&E) phase. See Transportation Management Plan Data Sheet, **Attachment E**.

6J. Stormwater Compliance

This project will comply with the Caltrans Statewide National Pollutant Discharge Elimination System (NPDES) permit. Temporary Construction Site Best Management Practices (BMPs), which will be identified during the project design phase, will be deployed under a contractor prepared Water Pollution Control Program.

See Draft Storm Water Data Report (SWDR), **Attachment F**, for more information.

6K. Highway Planting and Irrigation

Highway planting exists in the project area and irrigation systems may be impacted due to project. A detailed assessment will be performed

during the project design phase.
See Landscape Architecture Assessment Sheet (LAAS), Attachment G,
for more information.

7. OTHER CONSIDERATIONS AS APPROPRIATE

7A. Permits

An encroachment permit is not anticipated for this project.

7B. Drainage

This project is not anticipated to affect any existing drainage facilities or change any drainage patterns.

See Drainage Report Exemption Sheet, **Attachment H**.

7C. Complete Streets

No pedestrian facilities are addressed on this project. Currently, Auburn Blvd, within the project limit, has unmarked bike lane. Bicycle facilities will not be provided on the state route due to high vehicle speeds and traffic volume. The elements of Complete Streets do not apply to this project.

7D. Material and/or disposal site:

Surplus material generated by the project will become the property of the contractor. A disposal site will likely not be required.

7E. Reduce Greenhouse Gas (GHG) Emissions

Where available, it is recommended that material within a local radius of the project area and/or locally available building material be utilized to reduce GHG emissions.

7F. Climate Change

The proposed modification of the ramp meter will help reduce traffic congestion on the freeway system, minimize vehicle delays, which is expected to result in reduced travel time and GHG emissions. The purpose of the proposed project is to modify an existing ramp meter. The work is not expected to result in increased operational emissions as no additional roadway capacity will be added. Construction emissions are unavoidable but will be reduced to the greatest extent practicable through planning & implementation of best practices through the project delivery process. The proposed project is outside the coastal zone and impacts due to projected sea level rise are not anticipated.

8. FUNDING, PROGRAMMING AND ESTIMATE

Funding

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

Programming

Construction capital and support for this project is funded from the Senate Bill 1, 2020 Solutions for Congestion Corridors Program as part of the Placer-Sacramento Gateway Corridor Phase 1 list of projects.

Fund Source	Fiscal Year Estimate								
SACOG SCCP	Prior	20/21	21/22	22/23	23/24	24/25	Future	Total	Pro- grammed Amount
Component	In thousands of dollars (\$1,000)								
PA&ED Sup- port	30	50	0	0	0	0	0	80	80
PS&E Support		66	34	0	0	0	0	100	100
Right-of-Way Support	0	1	2	2	1	0	0	5	5
Construction Support			69	68	8	0	0	145	150
Right-of-Way Construction									
			349					349	350
Total									

The support to capital cost ratio is 94.5%. Project is estimated with 20 working days.

See *Programming Sheet*, **Attachment J**.

Estimate

Preliminary Project Cost Estimate is included as **Attachment B** in this report.

9. DELIVERY SCHEDULE

Project Milestones		Milestone Date (Month/Day/Year)	Milestone Designation (Target/Actual)
PROGRAM PROJECT	M015	6/25/2020	A
BEGIN ENVIRONMENTAL	M020	7/13/2020	A
PA & ED	M200	04/01/2021	T
P&E	M300	4/26/2021	T
PS&E TO DOE	M377	06/07/2021	T
RIGHT OF WAY CERTIFICATION	M410	07/19/2021	T
READY TO LIST	M460	08/02/2021	T
HEADQUARTERS ADVERTISE	M480	11/15/2021	T
AWARD	M495	01/14/2022	T
APPROVE CONTRACT	M500	02/15/2022	T
CONTRACT ACCEPTANCE	M600	10/03/2022	T
END PROJECT EXPENDITURES	M800	04/02/2024	T
FINAL PROJECT CLOSEOUT	M900	03/03/2025	T

10. RISKS

There are no risks associated with this project.

11. EXTERNAL AGENCY COORDINATION

Federal Highway Administration (FHWA)

This project is an Assigned Project in accordance with the current FHWA and Department of Transportation (Caltrans) Joint Stewardship and Oversight Agreement. It is exempt from FHWA review.

12. PROJECT REVIEWS

Scoping team field review * _____ Date _____

Scoping team field review attendance roster attached.

District Program Advisor _____ Date _____

District Landscape Architect _____ Date _____

District Landscape Specialist _____ Date _____

District Maintenance _____ Date _____

District Maintenance Landscape Architect _____ Date _____

Headquarters Project Delivery Coordinator _____ Date _____

Project Manager Daniel Kwong _____ Date 3/19/21

FHWA _____	Date _____
District Safety Review _____ Darryl Chambers	Date 3/15/21
Constructability Review _____ Kim Smith	Date 3/19/21
Other _____	Date _____

**Required only if the project report purpose is to request programming and for project approval*

13. PROJECT PERSONNEL

Daniel Kwong	Project Manager	(530) 713-3023
Kimberly Ader	PM Assist	(530) 740-4912
Fernando Rivera	Design Engineer	(530) 741-5712
Daniel Tecle	Project Engineer	(530) 740-4824
Rupinder Gill	Electrical Designer	(530) 755-4414
Simranjit Singh	Signing & Striping	(530) 741-4014
Masum Patwary	Environmental Coordinator	(530) 812-7634
Wendy Ratajczak	R/W Project Coordinator	(530) 821-8390
Kathryn Lugo	Landscape Associate	(530) 821-8433
Fahim Senazai	TMP Coordinator	(916) 865-8180
Mark Melani	Hazardous Waste Coordinator	(530) 720-5197
Iris Bishop	Storm Water Coordinator	(530) 741-4320
Salahuddin Chowdhury	Utility Engineering Workgroup	(530) 741-5500
Larry Hall	Freeway Operations	(916) 859-7955
Clemal Ray	Maintenance Supervisor	(916) 786-1067
Kevin Espinoza	Senior Transportation Engineer	(530) 741-5499

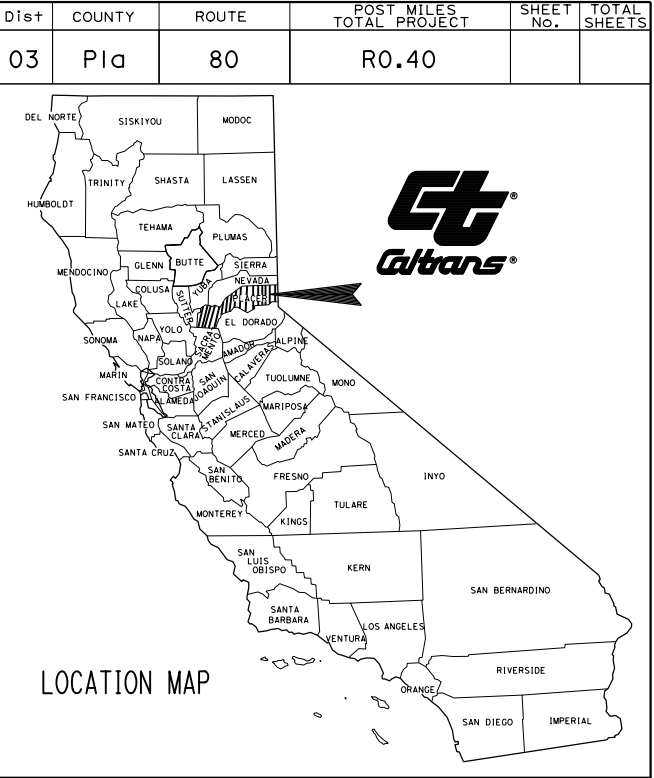
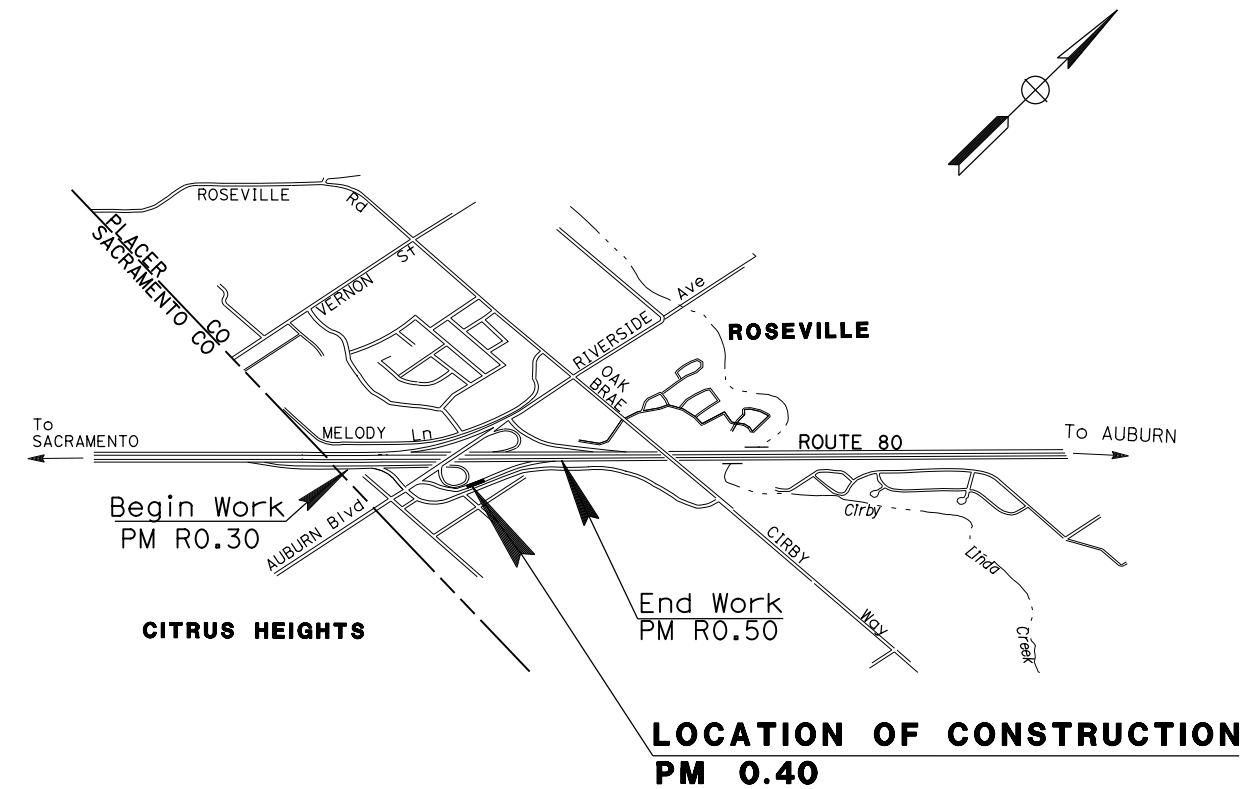
14. ATTACHMENTS (Number of Pages)

- A. Title Sheet & Preliminary Layouts (3)
- B. Project Cost Estimate (11)
- C. Right of Way Data Sheet (4)
- D. Environmental Document
- E. Traffic Management Plan Data Sheet (3)
- F. Storm Water Data Report (3)
- G. Landscape Architecture Assessment Sheet (3)
- H. Drainage Report Exemption (1)
- I. Hazardous Waste, ISA
- J. Programming Sheet and Resources
- K. Risk Register

ATTACHMENT A
TITLE SHEET AND PRELIMINARY LAYOUT

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN PLACER COUNTY IN THE CITY OF ROSEVILLE
ON EASTBOUND ROUTE 80
AT THE AUBURN BLVD SLIP ONRAMP

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2018



PROJECT MANAGER	DANIEL KWONG
DESIGN MANAGER	FERNANDO RIVERA

PROJECT ENGINEER
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.

CONTRACT No.	03-1J500
PROJECT ID	0320000250



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION



FUNCTIONAL SUPERVISOR
LUCIA SAAVEDRA

TRAFFIC

CALCULATED-
DESIGNED BY
CHECKED BY

SIMRANJIT SINGH
CHUCK COOK

REVISED BY
DATE REVISED

NOTES:

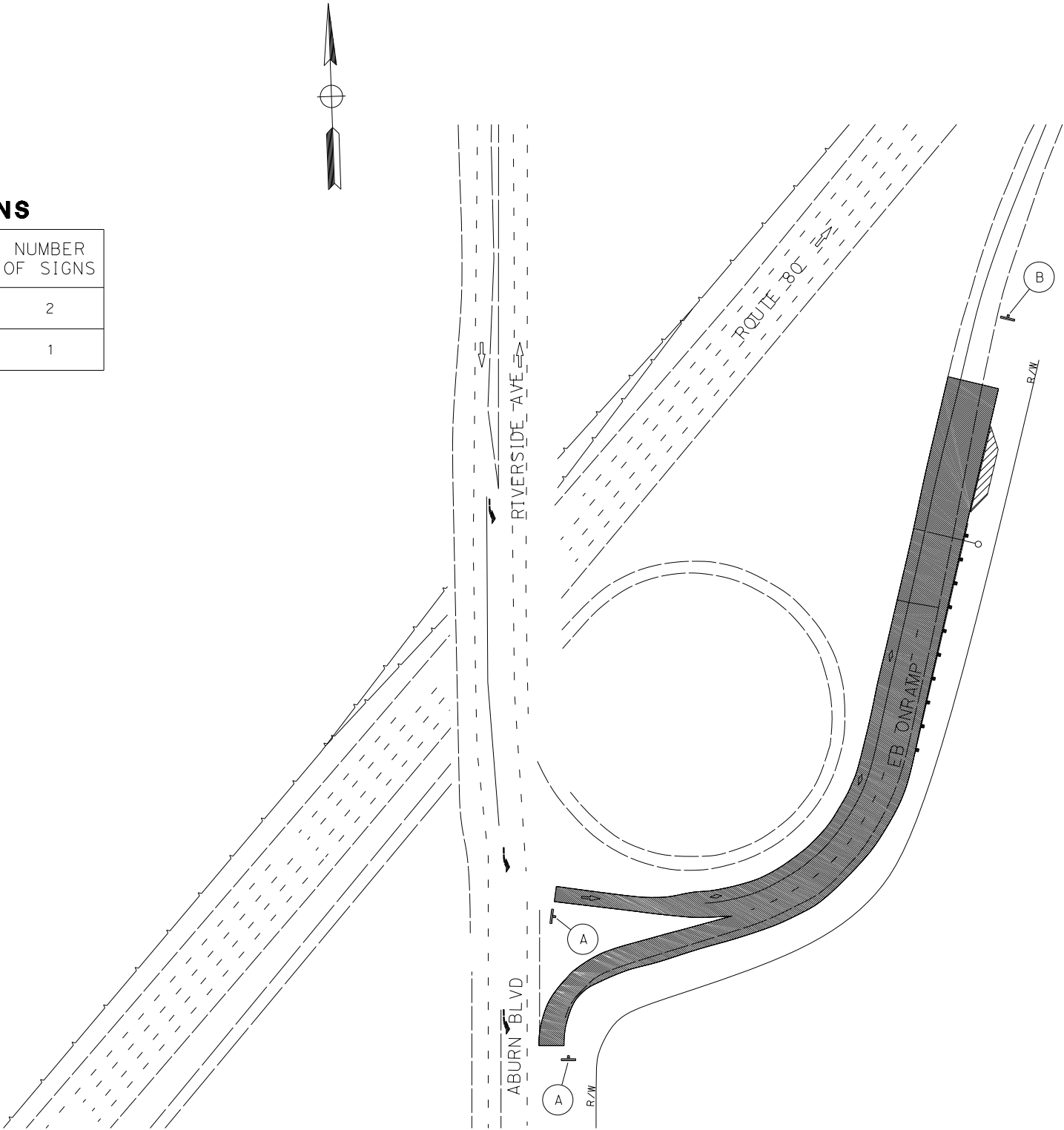
1. EXACT SIGN LOCATION TO BE DETERMINED BY THE ENGINEER.
2. ALL SIGN DESIGNATIONS SHOWN ARE FEDERAL UNLESS OTHERWISE INDICATED AS A CALIFORNIA (CA) SIGN DESIGNATION.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN LETTER	SIGN DESIGNATION	PANEL SIZE	SIGN MESSAGE	NUMBER OF POST AND SIZE	NUMBER OF SIGNS
A	W20-1 (RAMP)	48" x 48"	RAMP WORK AHEAD	1 - 6" x 6"	2
B	G20-2	36" x 18"	END ROAD WORK	1 - 4" x 4"	1

LEGEND

X CONSTRUCTION AREA SIGN NUMBER



CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla	80	0.400		

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.

REGISTERED PROFESSIONAL ENGINEER

LUCIA SAAVEDRA

No. 78880

Exp. 3-31-22

CIVIL

STATE OF CALIFORNIA

x		x		x		x		x	
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		FUNCTIONAL SUPERVISOR		CALCULATED-DESIGNED BY		SIMRANJIT SINGH		REVISED BY	
CALTRANS® TRAFFIC SAFETY		LUCIA SAAVEDRA		CHECKED BY		CHUCK COOK		DATE REVISED	

LUCIA SAAVEDRA

Lucía Saavedra

(LUCÍA SAAVEDRA)

Lucía Sáavedra

P:\proj5\03\11500\Traf\sign\Plans\0320000250nc001.dgn

x		x		x		x		x	
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		FUNCTIONAL SUPERVISOR		CALCULATED-DESIGNED BY		SIMRANJIT SINGH		REVISED BY	
ST-Caltrans®		TRAFFIC		CHECKED BY		CHUCK COOK		DATE REVISED	

THERMOPLASTIC
PAVEMENT MARKING (EWNV)

DESCRIPTION	QUANTITY	SQFT
DIAMOND SYMBOL	5 @ 11 SQFT	55
HOV	2 @ 18 SQFT	36
LANE	2 @ 24 SQFT	48
LIMIT LINE	-	41
TOTAL		180

REMOVE THERMOPLASTIC
PAVEMENT MARKING (EWNV)

DESCRIPTION	QUANTITY	SQFT
DIAMOND SYMBOL	3 @ 11 SQFT	33
CAR	1 @ 17 SQFT	17
POOL	1 @ 23 SQFT	23
LANE	1 @ 24 SQFT	24
LIMIT LINE	-	29
TOTAL		126

ABBREVIATION:
EWNV = ENHANCED WET NIGHT VISIBILITY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Nev	80	0.40		

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.

REGISTERED PROFESSIONAL ENGINEER

LUCIA SAAVEDRA

No. 78880

Exp. 3-31-22

CIVIL

STATE OF CALIFORNIA

PAVEMENT DELINEATION
QUANTITIES

PDQ-1

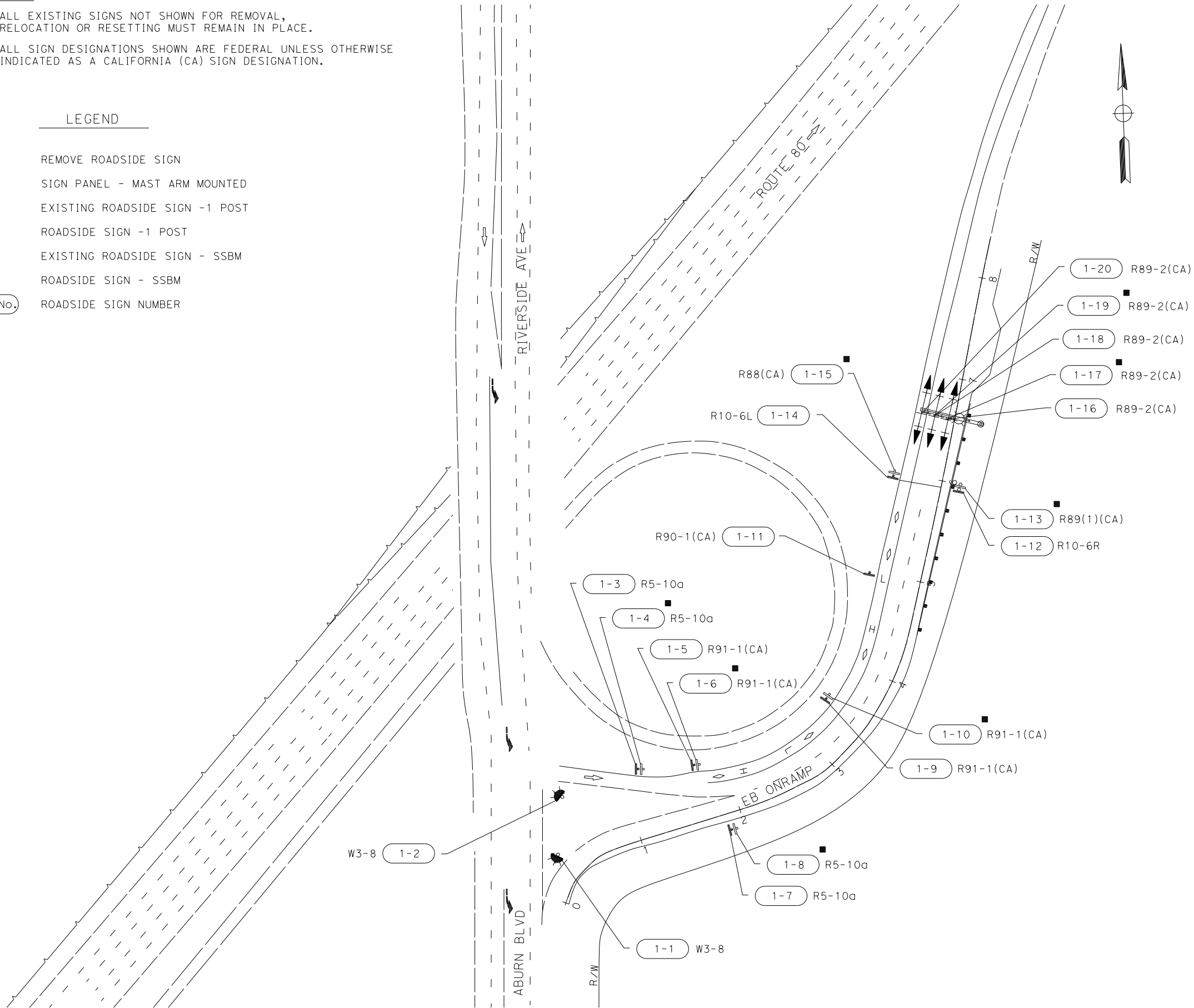
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		FUNCTIONAL SUPERVISOR		CALCULATED-DESIGNED BY		REVISOR	
TRAFFIC SAFETY		LUCIA SAAVEDRA		CHECKED BY		DATE	
				SIMRANJIT SINGH		CHUCK COOK	

NOTES:

- ALL EXISTING SIGNS NOT SHOWN FOR REMOVAL, RELOCATION OR RESETTING MUST REMAIN IN PLACE.
- ALL SIGN DESIGNATIONS SHOWN ARE FEDERAL UNLESS OTHERWISE INDICATED AS A CALIFORNIA (CA) SIGN DESIGNATION.

LEGEND

- REMOVE ROADSIDE SIGN
- SIGN PANEL - MAST ARM MOUNTED
- EXISTING ROADSIDE SIGN -1 POST
- ROADSIDE SIGN -1 POST
- EXISTING ROADSIDE SIGN - SSBM
- ROADSIDE SIGN - SSBM
- ROADSIDE SIGN NUMBER



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla	80	0.400		

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.

REGISTERED PROFESSIONAL ENGINEER

LUCIA SAAVEDRA

No. 78880

Exp. 3-31-22

CIVIL

STATE OF CALIFORNIA


SIGN PLAN

SCALE: 1"=50'

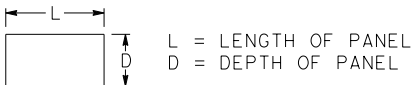
S-1

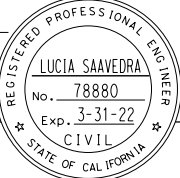
ROADSIDE SIGN QUANTITIES

SIGN NUMBER <div>SHT-No.</div>	SIGN DESIGNATION	PANEL SIZE	"C" DIM IN FEET	POST SIZE AND LENGTH	ROADSIDE SIGN	INSTALL SIGN (SSBM)	REMOVE ROADSIDE SIGN	WOOD WASTE TREATMENT	REMARKS
		INCHES		METAL POST 2½"x2½"	ONE POST				
				EA	EA				
1-1	W3-8	36 x 36							SEE NOTE 5 & 8
1-2	W3-8	36 x 36							SEE NOTE 5 & 8
1-3	R5-10a	36 x 30	5	10′	1				
1-4	R5-10a	36 x 30					1		
1-5	R91-1(CA)	48 x 66	5	12′	1				
1-6	R91-1(CA)	48 x 66					1	55	
1-7	R5-10a	36 x 30	5	10′	1				
1-8	R5-10a	36 x 30					1		
1-9	R91-1(CA)	48 x 66	5	12′	1				
1-10	R91-1(CA)	48 x 66					1	55	
1-11	R90-1(CA)	24 x 30	5	10′	1				
1-12	R10-6R	36 x 24	4	10′		1			
1-13	R89(1)(CA)	48 x 20					1		
1-14	R10-6L	36 x 24	4	10′	1				
1-15	R88(CA)	30 x 30					1	35	
1-12	R89(1)(CA)	48 x 20							SEE NOTE 5 & 6
1-13	R89-2(CA)	48 x 20							SEE NOTE 5
1-14	R89-2(CA)	48 x 20							SEE NOTE 5 & 6
1-15	R89-2(CA)	48 x 20							SEE NOTE 5
1-16	R89-2(CA)	48 x 20							SEE NOTE 5 & 6
SHEET TOTAL					6	1	6	145	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla	80	0.40		
<div style="display: flex; justify-content: space-between; align-items: center;"> <div> <u>REGISTERED CIVIL ENGINEER</u> </div> <div> <u>DATE</u> </div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 10px;"> <div> <u>PLANS APPROVAL DATE</u> </div> <div style="text-align: center;">  </div> </div> <p><i>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.</i></p>					

1. ALL SIGN DESIGNATIONS SHOWN ARE FEDERAL UNLESS OTHERWISE INDICATED AS A CALIFORNIA (CA) SIGN DESIGNATION.
2. ALL SIGN PANEL BACKGROUND SHEETING, WITH THE EXCEPTION OF WHITE, SHALL BE RETROREFLECTIVE ASTM TYPE XI.
3. ALL WHITE SIGN PANEL BACKGROUND SHEETING SHALL BE RETROREFLECTIVE ASTM TYPE VIII.
4. ALL SIGN PANEL LEGEND SHEETING, WITH THE EXCEPTION OF BLACK, SHALL BE RETROREFLECTIVE ASTM TYPE XI.
5. ALL BLACK SIGN PANEL LEGEND SHEETING SHALL BE NON-REFLECTIVE.



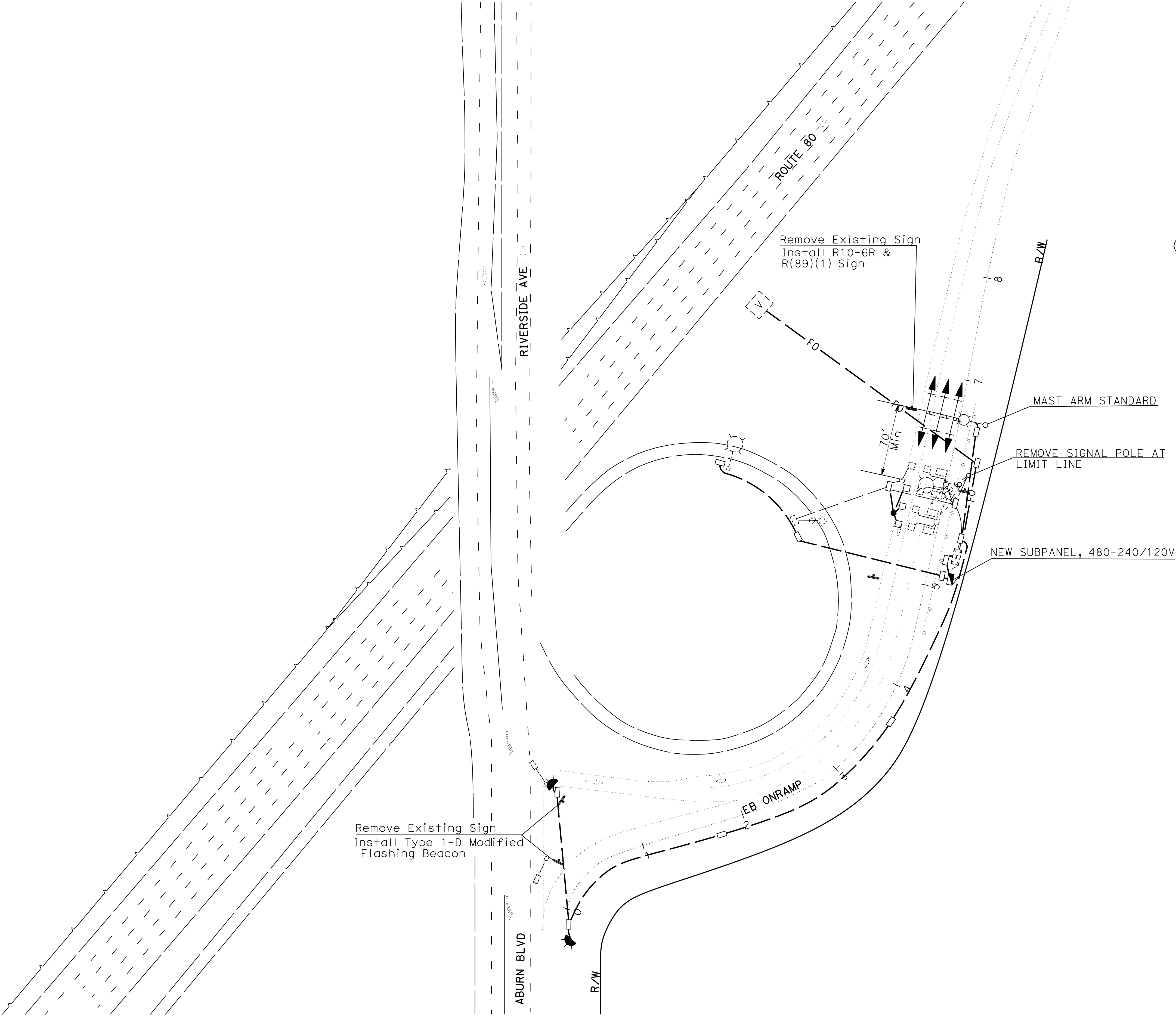
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla	80	0.40		
REGISTERED CIVIL ENGINEER			DATE		
PLANS APPROVAL DATE					
<p>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</p>					

ROADSIDE SIGN PANEL QUANTITIES

SIGN DESIGNATION	SIGN MESSAGE/DESCRIPTION	PANEL SIZE L x D	PANEL AREA	NUMBER OF PANELS	BACKGROUND SHEETING COLOR	LEGEND SHEETING COLOR	PROTECTIVE-OVERLAY FILM (PREMIUM)	FURNISH SINGLE SHEET ALUMINUM SIGN	
								UNFRAMED	
		0.063"	0.080"						
		SQFT	SQFT						
R5-10a	NO PEDESTRIANS, BICYCLES, MOTOR-DRIVEN CYCLES	36 x 30	7.5'	2	WHITE	BLACK	X	15	
R10-6	STOP HERE ON RED	36 x 24	6'	2	WHITE	BLACK	X	12	
R89-2(CA)	1 CAR PER GREEN THIS LANE	48 x 20	6.7'	3	WHITE	BLACK	X		20.1
R90-1(CA)	ALL VEHICLES STOP ON RED	24 x 30	5'	1	WHITE	BLACK	X	5	
R91-1(CA)	HOV 2+ 2 OR MORE ONLY WHEN METERED	48 x 66	22'	2	BLACK	WHITE	X		44
					WHITE	BLACK			
TOTAL								32	64.1

SIGN QUANTITIES

SQ-2



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Pla	80	0.400		

REGISTERED CIVIL ENGINEER

DATE

PLANS APPROVAL DATE

No.

Exp.

CIVIL

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.

FOR DESIGN STUDY ONLY

ATTACHMENT B COST ESTIMATE

PROJECT PLANNING COST ESTIMATE ©

EA: 03-1J500

EA: 03-1J500 PID: 320000250

PID: 320000250

District-County-Route:

03-Pla-80

PM:

0.4

Type of Estimate : Project Report

Program Code : SHOPP

Project Limits : On I-80 at PM 0.40 at Auburn Blvd slip on ramp.

Project Description: Modify Ramp Meter

Scope : modify an existing ramp meter at EB I-80 slip on Ramp from Auburn Blvd.

Alternative : Alternative # 1

SUMMARY OF PROJECT COST ESTIMATE

	Current Year Cost	Escalated Cost
TOTAL ROADWAY COST	\$ 337,700	\$ 348,506
TOTAL STRUCTURES COST	\$ -	\$ -
SUBTOTAL CONSTRUCTION COST	\$ 337,700	\$ 348,506
TOTAL RIGHT OF WAY COST	\$ -	\$ -
TOTAL CAPITAL OUTLAY COSTS	\$ 338,000	\$ 349,000
PAVED SUPPORT	\$ -	\$ -
PS&E SUPPORT	\$ -	\$ -
RIGHT OF WAY SUPPORT	\$ -	\$ -
CONSTRUCTION SUPPORT	\$ -	\$ -
TOTAL SUPPORT COST	\$ -	\$ -

TOTAL PROJECT COST	\$ 340,000	\$ 350,000	
---------------------------	-------------------	-------------------	--

Programmed Amount

Month / Year
Date of Estimate (Month/Year) March / 2021

May / 2022
Estimated Construction Start (Month/Year) May / 2022

Number of Working Days = 30

June / 2022
Estimated Mid-Point of Construction (Month/Year) June / 2022

June / 2022
Estimated Construction End (Month/Year) June / 2022

Number of Plant Establishment Days 0

Estimated Project Schedule

PID Approval	
PAVED Approval	4/1/2021
PS&E	6/7/2021
RTL	8/2/2021
Begin Construction	5/15/2022

Reviewed by District O.E. or
Cost Estimate Certifier

Tyler Smith

(530) 741-7152

Office Engineer / Cost Estimate Certifier

Date

Phone

Approved by Project Manager

xx/xx/xxxx

(xxx) xxx-xxxx

Project Manager

Date

Phone

I. ROADWAY ITEMS SUMMARY

	Section	Cost
1	Earthwork	\$ -
2	Pavement Structural Section	\$ -
3	Drainage	\$ -
4	Specialty Items	\$ 4,100
5	Environmental	\$ 26,500
6	Traffic Items	\$ 272,500
7	Detours	\$ -
8	Minor Items	\$ 3,100
9	Roadway Mobilization	\$ -
10	Supplemental Work	\$ 9,100
11	State Furnished	\$ -
12	Time-Related Overhead	\$ 6,300
13	Total Roadway Contingency	\$ 16,100
TOTAL ROADWAY ITEMS		\$ 337,700

Estimate Prepared By :

Name and Title	Date	Phone
----------------	------	-------

Estimate Reviewed By :

Name and Title	Date	Phone
----------------	------	-------

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code	Unit	Quantity	Unit Price (\$)	Cost
190101 Roadway Excavation	CY	x	= \$	-
19010X Roadway Excavation (Insert Type) ADL	CY	x	= \$	-
19801X Imported Borrow	CY/TON	x	= \$	-
194001 Ditch Excavation	CY	x	= \$	-
192037 Structure Excavation (Retaining Wall)	CY	x	= \$	-
193013 Structure Backfill (Retaining Wall)	CY	x	= \$	-
193031 Pervious Backfill Material (Retaining Wall)	CY	x	= \$	-
17010X Clearing & Grubbing	LS/ACRE	x	= \$	-
100100 Develop Water Supply	LS	x	= \$	-
19801X Imported Borrow	CY/TON	x	= \$	-
21012X Duff	ACRE/SQFT	x	= \$	-
		x	=	-

TOTAL EARTHWORK SECTION ITEMS	\$	-
--------------------------------------	-----------	----------

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code	Unit	Quantity	Unit Price (\$)	Cost
401050 Jointed Plain Concrete Pavement	CY	x	= \$	-
400050 Continuously Reinforced Concrete Pavement	CY	x	= \$	-
390132 Hot Mix Asphalt (Type A)	TON	x	= \$	-
26020X Class 2 Aggregate Base (CY)	CY	x	= \$	-
250401 Class 4 Aggregate Subbase	CY	x	= \$	-
414240 Isolation Joint Seal (Asphalt Rubber)	LF	x	= \$	-
414241 Isolation Joint Seal (Silicone)	LF	x	= \$	-
280010 Rapid Strength Concrete Base	CY	x	= \$	-
410096 Drill and Bond (Dowel Bar)	EA	x	= \$	-
390137 Rubberized Hot Mix Asphalt (Gap Graded)	TON	x	= \$	-
391006 Asphalt Binder (Geosynthetic Pavement Interlayer)	TON	x	= \$	-
290201 Asphalt Treated Permeable Base	CY	x	= \$	-
374002 Asphaltic Emulsion (Fog Seal Coat)	TON	x	= \$	-
397005 Tack Coat	TON	x	= \$	-
377501 Slurry Seal	TON	x	= \$	-
374493 Polymer Asphaltic Emulsion (Seal Coat)	TON	x	= \$	-
370001 Sand Cover (Seal)	TON	x	= \$	-
731530 Minor Concrete (Textured Paving)	CY	x	= \$	-
510502 Minor Concrete (Minor Structures)	CY	x	= \$	-
39407X Place Hot Mix Asphalt Dike (Insert Type)	LF	x	= \$	-
398100 Remove Asphalt Concrete Dike	LF	x	= \$	-
420201 Grind Existing Concrete Pavement	SQYD	x	= \$	-
398300 Remove Base and Surfacing	CY	x	= \$	-
390095 Replace Asphalt Concrete Surfacing	CY	x	= \$	-
41800X Remove Concrete Pavement	SQYD/CY	x	= \$	-
394090 Place Hot Mix Asphalt (Miscellaneous Area)	SQYD	x	= \$	-
398200 Cold Plane Asphalt Concrete Pavement	SQYD	x	= \$	-
846046 6" Rumble Strip (Asphalt Concrete Pavement)	STA	x	= \$	-
846049 6" Rumble Strip (Concrete Pavement)	STA	x	= \$	-
846051 12" Rumble Strip (Asphalt Concrete Pavement)	STA	x	= \$	-
846052 12" Rumble Strip (Concrete Pavement)	STA	x	= \$	-
420102 Groove Existing Concrete Pavement	SQYD	x	= \$	-
394095 Roadside Paving (Miscellaneous Areas)	SQYD	x	= \$	-
390136 Minor Hot Mix Asphalt	TON	x	= \$	-
XXXXXX Some Item	Unit	x	= \$	-

TOTAL PAVEMENT STRUCTURAL SECTION ITEMS	\$	-
--	-----------	----------

SECTION 3: DRAINAGE

Item code		Unit	Quantity	Unit Price (\$)	Cost
71013X	Remove Culvert	EA/LF	x	= \$	-
710240	Modify Inlet	EA	x	= \$	-
710370	Sand Backfill	CY	x	= \$	-
71010X	Abandon Culvert	EA/LF	x	= \$	-
710196	Adjust Inlet	LF	x	= \$	-
710262	Cap Inlet	EA	x	= \$	-
510501	Minor Concrete	CY	x	= \$	-
510502	Minor Concrete (Minor Structure)	CY	x	= \$	-
731627	Minor Concrete (Curb, Sidewalk, and Curb Ramp)	CY	x	= \$	-
6101XX	XX" Alternative Pipe Culvert (Insert Type)	LF	x	= \$	-
6411XX	XX" Plastic Pipe	LF	x	= \$	-
65XXXX	XX" Reinforced Concrete Pipe (Insert Type)	LF	x	= \$	-
6811XX	XX" Plastic Pipe (Edge Drain)	LF	x	= \$	-
6901XX	XX" Corrugated Steel Pipe Down drain (0.XXX" Thick)	LF	x	= \$	-
7006XX	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick)	LF	x	= \$	-
7032XX	XX" Corrugated Steel Pipe Riser (0.XXX" Thick)	LF	x	= \$	-
7050XX	XX" Steel Flared End Section	EA	x	= \$	-
703233	Grated Line Drain	LF	x	= \$	-
72XXXX	Rock Slope Protection (Type and Method)	CY/TON	x	= \$	-
72901X	Rock Slope Protection Fabric (Insert Class)	SQYD	x	= \$	-
721420	Concrete (Ditch Lining)	CY	x	= \$	-
721430	Concrete (Channel Lining)	CY	x	= \$	-
750001	Miscellaneous Iron and Steel	LB	x	= \$	-
XXXXXX	Additional Drainage	LS	x	= \$	-

TOTAL DRAINAGE ITEMS	\$	-
-----------------------------	-----------	----------

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity	Unit Price (\$)	Cost
520103	Bar Reinforced Steel (Retaining Wall)	LB	x	= \$	-
5100XX	Structural Concrete	CY	x	= \$	-
510060	Structural Concrete, Retaining Wall	CY	x	= \$	-
5201XX	Bar Reinforcing Steel	LB	x	= \$	-
080050	Progress Schedule (Critical Path Method)	LS	x	= \$	-
582001	Sound Wall (Masonry Block)	SQFT	x	= \$	-
510530	Minor Concrete (Wall)	CY	x	= \$	-
60005X	Remove Sound Wall	LF/LS/SQFT	x	= \$	-
070030	Lead Compliance Plan	LS	x	2,000.00	2,000
141120	Treated Wood Waste	LB	145	14.00	2,030
839750	Remove Barrier	LF	x	= \$	-
839752	Remove Guardrail	LF	x	= \$	-
710167	Remove Flared End Section	EA	x	= \$	-
8000XX	Chain Link Fence (Insert Type)	LF	x	= \$	-
80XXXX	XX" Chain Link Gate (Type CL-X)	EA	x	= \$	-
8320XX	Midwest Guardrail System (Insert Type)	LF	x	= \$	-
839301	Single Thrie Beam Barrier	LF	x	= \$	-
839310	Double Thrie Beam Barrier	LF	x	= \$	-
839521	Cable Railing	LF	x	= \$	-
839566	Terminal System (Type CAT)	EA	x	= \$	-
839584	Alternative In-line Terminal System	EA	x	= \$	-
839585	Alternative Flared Terminal System	EA	x	= \$	-
4906XX	XX" Cast-In-Drilled-Hole Concrete Piling	LF	x	= \$	-
8396XX	Crash Cushion (Insert Type)	EA	x	= \$	-
8331XX	Concrete Barrier (Insert Type)	LF	x	= \$	-
475010	Retaining Wall (Masonry Wall)	SQFT	x	= \$	-
511035	Architectural Treatment	SQFT	x	= \$	-
780460	Anti-Graffiti Coating	SQFT	x	= \$	-
780450	Rock Stain	SQFT	x	= \$	-
4730XX	Reinforced Concrete Crib Wall (Insert Type)	SQFT	x	= \$	-
83954X	Transition Railing (Insert Type)	EA	x	= \$	-
780440	Prepare and Stain Concrete	SQFT	x	= \$	-
839561	Rail Tensioning Assembly	EA	x	= \$	-
83958X	End Anchor Assembly (Insert Type)	EA	x	= \$	-
XXXXXX	Site Investigation (ADL)	LS	x	= \$	-

TOTAL SPECIALTY ITEMS	\$	4,100
------------------------------	-----------	--------------

Effective immediately, districts must input estimated item quantities in blue text above in the PRSM database for the pay items listed in the Design Memo, dated April 9, 2018, when Project Report is approved (Milestone 200). [Link to Design Memo.](#)

SECTION 5: ENVIRONMENTAL**5A - ENVIRONMENTAL MITIGATION**

Item code	Unit	Quantity	Unit Price (\$)	Cost
Biological Mitigation (on-site)	LS	x	= \$	-
80010X Temporary Fence (Insert Type)	LF	x	= \$	-
130670 Temporary Reinforced Silt Fence	LF	x	= \$	-
<i>Subtotal Environmental Mitigation</i>				\$ -

5B - LANDSCAPE AND IRRIGATION

Item code	Unit	Quantity	Unit Price (\$)	Cost
20XXXX Highway Planting	LS	x	= \$	-
20XXXX Irrigation System	LS	x	= \$	-
204099 Plant Establishment Work	LS	x	= \$	-
20XXXX Follow-up Landscape Project	LS	x	= \$	-
206405 Remove Irrigation Facility	LS	x	= \$	-
204096 Maintain Existing Planted Areas	LS	x	= \$	-
206400 Check and Test Existing Irrigation Facilities	LS	1 x	10,000.00 = \$	10,000
206402 OPERATE EXISTING IRRIGATION FACILITIES	LS	1 x	5,000.00 = \$	5,000
21011X Imported Topsoil	CY/TON	x	= \$	-
200114 Rock Blanket	SQFT/SQYD	x	= \$	-
200122 Weed Germination	SQYD	x	= \$	-
995100 Water Meter Charges	LS	x	= \$	-
2087XX XX" Conduit (Use for Irrigation x-overs)	LF	x	= \$	-
20890X Extend X" Conduit (Use for Extension of Irrigation	LF			
Irrigation components and planting	LS	1 x	3,000.00 = \$	3,000
<i>Subtotal Landscape and Irrigation</i>				\$ 18,000

5C - EROSION CONTROL

Item code	Unit	Quantity	Unit Price (\$)	Cost
211111 Permanent Erosion Control Establishment Work	LS	x	= \$	-
210010 Move-In/Move-Out (Erosion Control)	EA	x	= \$	-
210350 Fiber Rolls	LF			
210360 Compost Sock	LF			
210270 Rolled Erosion Control Product (Netting)	SQFT			
210252 Bonded Fiber Matrix	SQFT	6,000 x	0.50 = \$	3,000
210300 Hydromulch	SQFT			
210420 Straw	SQFT			
210212 Dryseed (CY)	SQFT			
210610 Compost (CY)	CY			
210630 Incorporate Materials	SQFT			
<i>Subtotal Erosion Control</i>				\$ 3,000

5D - NPDES

Item code	Unit	Quantity	Unit Price (\$)	Cost
130300 Prepare SWPPP	LS	x	= \$	-
130200 Prepare WPCP	LS	1 x	1,000.00 = \$	1,000
130100 Job Site Management	LS	1 x	3,000.00 = \$	3,000
130330 Storm Water Annual Report	EA	x	= \$	-
130310 Rain Event Action Plan	EA	x	= \$	-
130320 Storm Water Sampling and Analysis Day	EA	x	= \$	-
130520 Temporary Hydraulic Mulch	SQYD	x	= \$	-
130550 Temporary Hydroseed	SQYD	x	= \$	-
130505 Move-In/Move-Out (Temporary Erosion Control)	EA	x	= \$	-
130640 Temporary Fiber Roll	LF	x	= \$	-
130900 Temporary Concrete Washout	LS	1 x	1,500.00 = \$	1,500
130710 Temporary Construction Entrance	EA	x	= \$	-
130610 Temporary Check Dam	LF	x	= \$	-
130620 Temporary Drainage Inlet Protection	EA	x	= \$	-
130730 Street Sweeping	LS	x	= \$	-
<i>Subtotal NPDES</i>				\$ 5,500

Supplemental Work for NPDES

066595 Water Pollution Control Maintenance Sharing*	LS	x	= \$	-
066596 Additional Water Pollution Control**	LS	x	= \$	-
066597 Storm Water Sampling and Analysis***	LS	x	= \$	-
XXXXXX Some Item	LS	x	= \$	-
<i>Subtotal Supplemental Work for NDPS</i>				\$ -

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

TOTAL ENVIRONMENTAL	\$	26,500
----------------------------	-----------	---------------

SECTION 6: TRAFFIC ITEMS**6A - Traffic Electrical**

Item code	Unit	Quantity	Unit Price (\$)	Cost
870200 Lighting System	LS	x	= \$	-
870300 Sign Illumination System	LS	x	= \$	-
870400 Signal and Lighting System	LS	x	= \$	-
872134 Modifying Ramp Metering System	LS	1	x 220,000.00	= \$ 220,000
87181X Interconnection Conduit and Cable	LF/LS	x	= \$	-
5602XX Furnish Sign Structure (Insert Type)	LB	x	= \$	-
5602XX Install Sign Structure (Insert Type)	LB	x	= \$	-
4980XX XX" CIDHC Pile (Sign Foundation)	LF	x	= \$	-
87011X Inductive Loop Detector	EA/LS	x	= \$	-
870600 Traffic Monitoring Station System	LS	x	= \$	-
56804X Remove Sign Structure	EA/LS	x	= \$	-
568054 Reconstruct Sign Structure	EA	x	= \$	-
568060 Modify Sign Structure	EA	x	= \$	-
870009 Elements During Construction	LS	x	= \$	-
872130 Modify Existing Electrical System	LS	x	= \$	-
870010A Locating Underground Facilities	LS	1	5,000.00	\$ 5,000
XXXXX Some Item	Unit	x	= \$	-
Subtotal Traffic Electrical				\$ 225,000

6B - Traffic Signing and Striping

Item code	Unit	Quantity	Unit Price (\$)	Cost
820840 Roadside Sign - One Post	EA	6	x 400.00	= \$ 2,400
820850 Roadside Sign - Two Post	EA	x	= \$	-
810230 Pavement Marker (Retroreflective)	EA	x	= \$	-
846030 Remove Thermoplastic Traffic Stripe	LF	x	= \$	-
141102 Remove Yellow Painted Traffic Stripe (Hazardous V	LF	x	= \$	-
846035 Remove Thermoplastic Pavement Marking	SQFT	130	x 6.00	= \$ 780
820250 Remove Roadside Sign	EA	6	x 250.00	= \$ 1,500
820530 Reset Roadside Sign	EA	x	= \$	-
820750 Furnish Single Sheet Aluminum (0.063"-Unframed)	SQFT	40	x 13.00	= \$ 520
820760 Furnish Single Sheet Aluminum (0.080"-Unframed)	SQFT	64	x 16.00	= \$ 1,024
840621 Thermoplastic Traffic Stripe (EWNV) (Broken 17-7)	LF	x	= \$	-
840516 Thermoplastic Pavement Marking (EWNV)	SQFT	180	x 13.00	= \$ 2,340
820860 Install Sign (Strap and Saddle Method)	EA	2	x 200.00	= \$ 400
120090 Construction Area Signs	LS	1	x 1,000.00	= \$ 1,000
Subtotal Traffic Signing and Striping				\$ 9,964

6C - Traffic Management Plan

Item code	Unit	Quantity	Unit Price (\$)	Cost
128652 Portable Changeable Message Sign (LS)	LS	1	x	= \$ -
Subtotal Traffic Management Plan				\$ -

6C - Stage Construction and Traffic Handling

Item code	Unit	Quantity	Unit Price (\$)	Cost
120198 Plastic Traffic Drums	EA	x	= \$	-
12016X Channelizer (Insert Type)	EA	x	= \$	-
120116 Type II Barricade	EA	x	= \$	-
120120 Type III Barricade	EA	x	= \$	-
129100 Temporary Crash Cushion Module	EA	x	= \$	-
120100 Traffic Control System	LS	1	x 37,500.00	= \$ 37,500
129110 Temporary Crash Cushion	EA	x	= \$	-
129000 Temporary Railing (Type K)	LF	x	= \$	-
120149 Temporary Pavement Marking (Paint)	SQFT	x	= \$	-
120152 Temporary Pavement Marking (Tape)	SQFT	x	= \$	-
8101XX Delineator (Insert Class)	EA	x	= \$	-
Subtotal Stage Construction and Traffic Handling				\$ 37,500

TOTAL TRAFFIC ITEMS	\$ 272,500
----------------------------	-------------------

SECTION 7: DETOURS

Includes constructing, maintaining, and removal

Item code	Unit	Quantity	Unit Price (\$)	Cost
190101 Roadway Excavation	CY	x	= \$	-
19801X Imported Borrow	CY/TON	x	= \$	-
390132 Hot Mix Asphalt (Type A)	TON	x	= \$	-
26020X Class 2 Aggregate Base	CY/TON	x	= \$	-
250401 Class 4 Aggregate Subbase	CY	x	= \$	-
130620 Temporary Drainage Inlet Protection	EA	x	= \$	-
129000 Temporary Railing (Type K)	LF	x	= \$	-
128601 Temporary Signal System	LS	x	= \$	-
120149 Temporary Pavement Marking (Paint)	SQFT	x	= \$	-
80010X Temporary Fence (Insert Type)	LF	x	= \$	-
XXXXXX Some Item	LS	x	= \$	-
TOTAL DETOURS				\$ -

SUBTOTAL SECTIONS 1 through 7 \$ 303,100

SECTION 8: MINOR ITEMS**8A - Americans with Disabilities Act Items**

ADA Items 0.0% \$ -

8B - Bike Path Items

Bike Path Items 0.0% \$ -

8C - Other Minor Items

Other Minor Items 1.0% \$ 3,031

Total of Section 1-7 \$ 303,100 x 1.0% = \$ 3,031

TOTAL MINOR ITEMS \$ 3,100**SECTIONS 9: ROADWAY MOBILIZATION ***

Item code	Total Section 1-8	\$	306,200	x	10%	= \$	-
999990							
TOTAL ROADWAY MOBILIZATION							\$ -

SECTION 10: SUPPLEMENTAL WORK

Item code		Unit	Quantity	Unit Price (\$)		Cost
066670	Payment Adjustments For Price Index Fluctuations	LS		x	= \$	-
066094	Value Analysis	LS		x	= \$	-
066070	Maintain Traffic	LS		x	= \$	-
066919	Dispute Resolution Board	LS		x	= \$	-
066921	Dispute Resolution Advisor	LS		x	= \$	-
066015	Federal Trainee Program	LS		x	= \$	-
066610	Partnering	LS		x	= \$	-
066204	Remove Rock and Debris	LS		x	= \$	-
066222	Locate Existing Crossover	LS		x	= \$	-
066596	Additional Water Pollution Control	LS	1	x 1,000.00	= \$	1,000
66208	Repair existing irrigation system	LS	1	X 5,000.00	= \$	5,000
Cost of <i>NPDES</i> Supplemental Work specified in Section 5D					= \$	-
Total Section 1-8		\$	306,200	1%	= \$	3,062
TOTAL SUPPLEMENTAL WORK						\$ 9,100

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity	Unit Price (\$)		Cost
066105	Resident Engineers Office	LS	x	=		\$0
066063	Traffic Management Plan - Public Information	LS	x	=		\$0
066901	Water Expenses	LS	x	=		\$0
8609XX	Traffic Monitoring Station (X)	LS	x	=		\$0
066841	Traffic Controller Assembly	LS	x	=		\$0
066852	Type 334 Controller Cabinet	LS	x	=		\$0
066062	COZEEP Contract	LS	x	=		\$0
066838	Reflective Numbers and Edge Sealer	LS	x	=		\$0
066065	Tow Truck Service Patrol	LS	x	=		\$0
066916	Annual Construction General Permit Fee	LS	x	=		\$0
066871	Electrical Service Connections	LS	x	=		\$0
Total Section 1-8		\$	306,200	0%	= \$	-

TOTAL STATE FURNISHED	\$0
------------------------------	------------

SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization \$306,200 (used to calculate total TRO)
 Total Construction Cost (excluding TRO and Contingency) \$315,300 (used to check if project capital cost is greater than \$5 million including contingency)

Estimated Time-Related Overhead (TRO) Percentage (0% to 10%) = **2%**

Item code		Unit	Quantity	Unit Price (\$)		Cost
090100	Time-Related Overhead	WD	20	X \$315	=	\$6,300

TOTAL TIME-RELATED OVERHEAD	\$6,300
------------------------------------	----------------

SECTION 13: ROADWAY CONTINGENCY*

Risk Amount from Risk Register	(for Known Risks)	0%		\$0
Additional or Residual Contingency	(for Unknown/Undefined Risks)	5%		\$16,080
Total Section 1-12	\$	321,600	x 5%	= \$16,080
TOTAL CONTINGENCY*				\$16,100

II. STRUCTURE ITEMS**Bridge 1**

DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Bridge Name	XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Bridge Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX
Cost Per Square Foot	\$0		\$0		\$0
COST OF EACH	\$0		\$0		\$0

Building 1

DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Building Name	XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Building Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXXXXXX
Cost Per Square Foot	\$0		\$0		\$0
COST OF EACH	\$0		\$0		\$0

TOTAL COST OF BRIDGES	\$0
------------------------------	------------

TOTAL COST OF BUILDINGS	\$0
--------------------------------	------------

Time-Related Overhead	10%	\$0
------------------------------	-----	------------

STRUCTURES MOBILIZATION	10%	\$0
--------------------------------	-----	------------

STRUCTURES CONTINGENCY*	25%	\$0
--------------------------------	-----	------------

TOTAL COST OF STRUCTURES	\$0
---------------------------------	------------

Estimate Prepared By:

XXXXXXXXXXXXXXXXXXXX ----- Division of Structures

Date

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way Data Sheet.

			<i>Current Value Future Use</i>		<i>Escalated Value</i>
A)	A1)	Acquisition, including Excess Land, Fees, Damages, Goodwill	\$	0	\$ 0
	A2)	Acquisition of Offsite Mitigation	\$	0	\$ 0
	A3)	Railroad Acquisition	\$	0	\$ 0
B)	B1)	Utility Relocation (State Share)	\$	0	\$ 0
	B2)	Potholing (Design Phase)	\$	0	\$ 0
C)	Utility - Advance Engineering Estimate (Encumber with State Only Funds)		\$	0	\$ 0
D)	RAP and/or Last Resort Housing		\$	0	\$ 0
E)	Clearance & Demolition		\$	0	\$ 0
F)	Relocation Assistance (RAP and/or Last Resort Housing Costs)		\$	0	\$ 0
G)	Title and Escrow		\$	0	\$ 0
H)	Environmental Review		\$	0	\$ 0
I)	Condemnation Settlements	<u>0%</u>	\$	0	\$ 0
J)	Design Appreciation Factor	<u>0%</u>	\$	0	\$ 0
K)	Utility Relocation (Construction Cost)		\$	0	\$ 0

L)	TOTAL RIGHT OF WAY ESTIMATE	\$0
----	------------------------------------	------------

M)	TOTAL R/W ESTIMATE: Escalated	\$0
----	--------------------------------------	------------

N)	RIGHT OF WAY SUPPORT	\$0
----	-----------------------------	------------

Support Cost Estimate
Prepared By _____ Project Coordinator¹ _____ Phone _____

Utility Estimate Prepared By _____ Utility Coordinator² _____ Phone _____

R/W Acquisition Estimate
Prepared By _____ Right of Way Estimator³ _____ Phone _____

Note: Items G & H applied to items A + B

¹ When estimate has Support Costs only² When estimate has Utility Relocation³ When R/W Acquisition is required

IV. SUPPORT COST ESTIMATE SUMMARY

Run a [Support Cost Estimate Summary](#)

report (D11 Project Management Support onramp) for component data.

		Unescalated-Risk Loaded					Escalated (4.2% per year for ETC, effective 1/2/2018)				
Total by FY		PA&ED	PS&E	RW	CON	Total \$	PA&ED	PS&E	RW	CON	Total \$
<2015/16	Expended ETC										
2016/17	Expended ETC										
2017/18	Expended ETC										
2018/19	Expended ETC										
2019/20	Expended ETC										
2020/21	Expended ETC										
2021/22	Expended ETC										
2022/23	Expended ETC										
2023/24	Expended ETC										
2024/25	Expended ETC										
2025/26	Expended ETC										
2026/27	Expended ETC										
2027/28	Expended ETC										
2028/29	Expended ETC										
>2029/30	Expended ETC										
EAC (Expended + ETC)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Risk Amount from Risk Register						Escalated Risk Amount	\$0	\$0	\$0	\$0	\$0
Support Escalation Rate											
Duration to mid-point component											
Total including Risk Amount		\$0	\$0	\$0	\$0	Total Esc. Support Cost	\$0	\$0	\$0	\$0	\$0
Approved Budget (PRSM)											
Difference (Budget - EAC)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Support Ratio (EAC / Cap Cost)		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Total Capital Cost:	349,000
Total Capital Outlay Support Cost:	0
Overall Percent Support Cost:	0.0%

PRSM workplan hours/costs verified
against approved MWA:

Office Chief -

Date

Approved by:

Project Control -

Date

ATTACHMENT C
RIGHT OF WAY DATA SHEET

MEMORANDUM

*Making Conservation
a California Way of Life.*

To: FERNANDO RIVERA
Design Engineer
Department of Transportation

Date: March 8, 2021

File: 03-PLA-80-PM 0.40

EFIS No.: 03 2000 0250

EA: 1J500

Attention: DANIEL TECLE
Project Engineer

From: JANEL D. WILSON
Assistant Chief
North Region Right of Way
Marysville

Type text here

Subject: CURRENT ESTIMATED RIGHT OF WAY COSTS

Project Description: Modify the existing ramp meter by metering the HOV Preferential Lane. Work includes remove/replace the existing ramp meter system, saw cutting pavement for the vehicle detection loops, power and telephone conduits installations by means of a directional drilling or trenching under the EB I-80 at Auburn Blvd/Riverside slip on ramp & EB I-80 loop off ramp to Riverside Avenue. A maintenance vehicle pullout, MVP, will be included. MVP work will include roadway excavation, earthwork and HMA paving.

We have completed an estimate of the right of way costs for the above referenced project based on information received from you on February 18, 2021.

Right of Way Lead Time will require a minimum of 3 months after receipt of appraisals maps, utility conflict maps, environmental clearances (HMDD) and Certificate of Sufficiency (COS) to complete the Right of Way Certification. Shorter lead times may require additional support resources and may adversely affect delivery of Right of Way Certification.

Attachment:
Right of Way Data Sheet

cc. Daniel Kwong

California State Transportation Agency
RIGHT OF WAY DATASHEET



EA: 1J500
PROJECT NO.: 03 2000 0250
LOCATION: 03-PLA-80-PM 0.40
DESCRIPTION: Modify the existing ramp meter.

DATE: 3/8/2021
DATASHEET TYPE: Initial

1. Right of Way Cost Estimate:

	Current Value Future Use	Escalation Rate	Escalated Value
A. Total Acquisition Cost	\$0		\$0
B. Appraisal Fees Estimate	\$0	N/A	\$0
C. Mitigation Acquisition & Credits	\$0		\$0
D. Project Development Permit Fees	\$0		\$0
Subtotal	\$0		N/A
E. Utility Relocation (State's Share)	\$0		\$0
(Owner's Share: \$0)			
F. Relocation Assistance (RAP)	\$0		\$0
G. Clearance/Demolition	\$0		\$0
H. Title & Escrow	\$0		\$0
I. Total Estimated Right of Way Cost	\$0		
J. Phase 4 estimated expenses			
Railroad	\$0		
Construction Contract Work	\$0		
		Rounded	\$0 *

2. Current Date of Project Approval (PA&ED)
Current Date of Right of Way Certification

April 1, 2021
July 19, 2021

3. Parcel Data:

Type	Dual/Appr	Utilities	Railroad
X 0		U4 - 1 0	C&M Agreement 0
A 0		- 2 0	Service Contract 0
B 0		- 3 0	Easements 0
C 0	0	- 4 0	Rights of Entry 0
D 0	0	U5 - 7 10	Clauses 1
RR 0		- 8 0	
Total 0		- 9 0	
Excess 0			

Areas:	Mitigation	Misc. R/W Work
R/W N/A	Impacts 0	RAP Displacees N/A
TCE N/A	Parcels 0	Clear/Demo N/A
Excess N/A	Credits 0	PTE Construct N/A
Mitigation N/A	Lump Sum 0	Condemnation N/A
	Env PTE 0	USA Involvement No

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

All work will be performed within the existing Right of Way.

5. Are any properties acquired for this project expected to be rented, leased, or sold?

Yes _____ No X

6. Are RAP displacements required?

Yes _____ No X

No. of single family N/A

No. of multi-family N/A

No. of business/nonprofit N/A

No. of farms N/A

Based on Draft/Final Relocation Impact Statement/Study dated _____ N/A

N/A Sufficient replacement housing will be available without last resort housing.

N/A Sufficient replacement housing will not be available without last resort housing.

7. Is there an effect on assessed valuation?

Yes _____ No X Not Significant _____

8. Are there any items of Construction Contract Work?

Yes _____ No X

There is no Construction Contract Work associated with the project.

9. Are utility facilities or rights of way affected?

Yes _____ No X

Names of Utility Companies requiring verification only.

Consolidated Communications, Citrus Heights Water District, Comcast, Placer County Special Sewer District, City of Citrus Heights, City of Roseville - electric, City of Roseville - water, City of Roseville - waste water, PG&E - gas, PG&E - electric.

Names of Utility Companies requiring involvements.

None.

Additional information concerning Utility Involvement on this project.

No potholing anticipated, as determined by Utility Engineering Workgroup. Project area is access controlled freeway ramp area right of way.

10. Are railroad facilities or rights of way affected?

Yes X No _____ Phase 4 Capital \$0

There are Union Pacific Railroad Co tracks delineated on the location map of the project. There will not be any work near the railroad RW. Project plans will be sent to UP for comment. A Railroad Clearance Memo with Short Clauses will be sent to OE with the RW Cert Request.

11. Are USA Lands or Rights Affected?

Yes _____ No X Phase 4 Capital \$0

Agencies Involved:

US Forest Service _____

National Parks _____

US Fish & Wildlife _____

BLM _____

BIA _____

GSA _____

Army Corps of Engineers _____

Veterans Administration _____

Rights or Permissions to acquire:

Easement _____

Right of Way Grant _____

Mineral Agreement _____

Special Use Permit _____

Cooperative Work Agreement _____

Letter of Concurrence _____

Courtesy Letter _____

Cost Recovery _____

Timber Sale _____

12. Is an RE Office required for the project?

Yes X No _____

13. Were any previously unidentified sites with hazardous waste and/or material found?

Yes _____ None Evident X

14. Are there material borrow and/or disposal sites required?

No X Optional _____ Mandatory _____

15. Are there potential relinquishments and/or abandonments?

Yes _____ No X

16. Are there any existing and/or potential airspace sites?

Yes _____ No X

17. What type of mitigation is required for the project?

Mitigation is not anticipated.

18. Is it anticipated that Caltrans will perform all Right of Way work?

Yes X No _____

19. Indicate the anticipated Right of Way schedule and lead time requirements.

Right of Way Lead Time will require a minimum of 3 months after we receive final appraisal maps, utility conflict maps, necessary environmental clearances, and freeway agreements have been approved and obtained, to complete the Right of Way Certification process.

20. Assumptions and limiting conditions: (Check boxes that apply.)

- ☒ Design will secure necessary encroachment permits from local agencies, Reclamation Districts, Central Valley Flood Protection Board, etc. in advance of construction.
- ☒ Project permits are not required for the project.
- ☒ All work and access will be within the State's current Right of Way.
- ☒ If the contractor requires a staging area, Standard Specifications (Sections 5-1.32) indicates that the contractor will be responsible for securing locations for staging and storage.

Evaluation Prepared By:

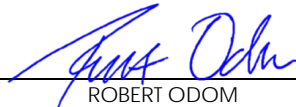
Right of Way:



PATRICK REGO
Associate Right of Way Agent

Date 3/8/2021

Recommended:



ROBERT ODOM
Acting Senior Right of Way Agent
Appraise/Acquire, Estimating, & RAP Branch
Marysville

Date 03/08/2021

I have personally reviewed this Right of Way Data Sheet and all supporting information. I certify that the probable Highest and Best Use, estimated values, escalation rates and assumptions are reasonable and proper, subject to the limiting conditions set forth, and I find this Data Sheet to be complete and current.



JANEL D. WILSON
Assistant Chief
North Region Right of Way
Marysville

Date 3/8/21

Reviewed By

RW Planning & Management:


ERIC YBARRA

Date 3/8/21

ATTACHMENT D
ENVIRONMENTAL DOCUMENT



**CEQA EXEMPTION / NEPA CATEGORICAL EXCLUSION
DETERMINATION FORM (rev. 05/2020)**

Project Information

DIST-CO-RTE: 03/PLA/080

PM/PM: 0.40/0.40

EA: 03-1J500

Federal-Aid Project Number: 0320000250

Project Description

Eastbound I-80 at Auburn Blvd/Riverside slip on ramp currently has two metered lanes and a third unmetered high-occupancy vehicle (HOV) lane and experiences congestion during the AM peak period due to heavy mainline and onramp demand. Caltrans proposes to modify the existing ramp meter by metering the HOV Preferential Lane. Work includes remove/replace the existing ramp meter system, saw cutting pavement for the vehicle detection loops, power and telephone conduits installations by means of a directional drilling or trenching under the EB I-80 at Auburn Blvd/Riverside slip on ramp & EB I-80 loop off ramp to Riverside Avenue. A maintenance vehicle pullout, MVP, will be included. MVP work will include roadway excavation, earthwork and HMA paving.

Caltrans CEQA Determination (Check one)

☐ **Not Applicable** – Caltrans is not the CEQA Lead Agency

☐ **Not Applicable** – Caltrans has prepared an IS or EIR under CEQA

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

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

☒ **Categorically Exempt. Class 1.** (PRC 21084; 14 CCR 15300 et seq.)

☒ No exceptions apply that would bar the use of a categorical exemption (PRC 21084 and 14 CCR 15300.2). See the [SER Chapter 34](#) for exceptions.

☐ **Covered by the Common Sense 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 (14 CCR 15061[b][3].)

Senior Environmental Planner or Environmental Branch Chief

Rajpreet Bihala

Print Name

Signature

Date

Project Manager

Daniel R Kwong

Print Name

Signature

Date



CEQA EXEMPTION / NEPA CATEGORICAL EXCLUSION DETERMINATION FORM

Caltrans NEPA Determination (Check one)

Caltrans has determined that this project has no significant impacts on the environment as defined by NEPA, and that there are no unusual circumstances as described in 23 CFR 771.117(b). See [SER Chapter 30](#) for unusual circumstances. As such, the project is categorically excluded from the requirements to prepare an EA or EIS under NEPA and is included under the following:

☒ **23 USC 326:** Caltrans has been assigned, and hereby certifies that it has carried out the responsibility to make this determination pursuant to 23 USC 326 and the Memorandum of Understanding dated April 18, 2019, executed between FHWA and Caltrans. Caltrans has determined that the project is a Categorical Exclusion under:

☒ **23 CFR 771.117(c): activity (c)(27)**

☐ **23 CFR 771.117(d): activity (d)(Enter activity number)**

☐ **Activity Enter activity number listed in Appendix A of the MOU between FHWA and Caltrans**

☐ **23 USC 327:** Based on an examination of this proposal and supporting information, Caltrans has determined that the project is a Categorical Exclusion under 23 USC 327. The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated December 23, 2016 and executed by FHWA and Caltrans.

Senior Environmental Planner or Environmental Branch Chief

Rajpreet Bihala

Print Name

Signature

Date

Project Manager/ DLA Engineer

Daniel R Kwong

Print Name

Signature

Date

Date of Categorical Exclusion Checklist completion: 3/25/2021

Date of Environmental Commitment Record or equivalent: 3/25/2021

Briefly list environmental commitments on continuation sheet if needed (i.e., not necessary if included on an attached ECR). Reference additional information, as appropriate (e.g., additional studies and design conditions).



CEQA EXEMPTION / NEPA CATEGORICAL EXCLUSION DETERMINATION FORM

Continuation sheet:

Staging

All staging would occur within the Caltrans right-of-way on existing pullouts.

Disposal/Borrow

No borrow is required. There will be earthwork from ditch excavation that will be disposed of appropriately by the contractor.

Right-of Way

There are locations with ADA and drainage work outside CT ROW – Design will get encroachment permit from State/local agencies. The locations were identified in the ESL Maps.

Consultation/Coordination

No consultation/coordination are needed.

Permits

No permits are required.

ATTACHMENT E
TRAFFIC MANAGEMENT PLAN DATA SHEET

Memorandum

*Serious drought.
Help Save Water!*

To: Daniel Tecle
Project Engineer

Date: February 22, 2021

File: 03-1J500
03-Pla-80-PM-0.40

From: Fahim Senzai
TMP Coordinator
D3-Transportation Management Planning Office

Subject: Transportation Management Plan (TMP) Data Sheet

Background

Modify the existing ramp meter, eastbound I-80 at Auburn Blvd/Riverside slip on ramp, by metering the HOV Preferential Lane. Work includes remove/replace the existing ramp meter system, saw cutting pavement for the vehicle detection loops, power and telephone conduits installations by means of a directional drilling or trenching under the EB I-80 at Auburn Blvd/Riverside slip on ramp & EB I-80 loop off ramp to Riverside Avenue. A maintenance vehicle pullout, MVP, will be included. MVP work will include roadway excavation, earthwork and HMA paving.

- For traffic volumes refer to Table-1.

Table-1: Traffic Volumes (2017 Traffic Volumes on California State Highways)				
Location Description	Type of Roadway	Peak-Hour (both directions combined) (vph)	% Truck Traffic	AADT (vpd)
03-Pla-80 PM 0.40	Multi-lane	17,700	5.27	192,100

Recommendations

- Due to high traffic volumes, work on Placer 80 and ramps will be limited to night time and off-peak hours during construction.
- On multilane roadway, a minimum of one paved traffic lane, not less than 11 feet wide, shall be open in each direction of travel.
- Portable changeable message signs (PCMS) will be required in direction of traffic during construction for each lane closure, shoulder closure and speed reduction zone.
- Ramp closures will be performed in accordance with Standard Plan Sheet T14, "Traffic Control System for Ramp Closure".
- The maximum length of any lane closure shall be limited to 0.5 mile

- Portable changeable message signs (PCMS) will be required in direction of traffic during construction for each lane or shoulder closure.
- No lane closures, shoulder closures, or other traffic restrictions will be allowed on Special Days, designated legal holidays and the day preceding designated legal holidays, and when construction operations are not actively in progress.
- Work at these locations may require the assistance of COZEED.
- Coordination with projects within, or nearby the project limits will be required to avoid conflicts.
- Lane closure charts will have to be developed prior to P&E

Cost

- For estimating purposes, use \$2,500 per working day to estimate the costs that are required for the Traffic Management Plan (TMP) items. These items include Traffic Control System, Portable Changeable Message Signs, and TMP-Public Information.
- COZEED is estimated at \$1,150 per working day and \$2,300 per working night whenever CHP involvement is needed during construction. COZEED estimate should include 2 officers per vehicle when performing night work.
- If there is a change in the scope of the project or the order of work (schedule), please advise the TMP unit, as this may affect the TMP estimate.

P & E Requirement

To complete a TMP for this project, please provide the following to the Office of Traffic Management Planning at least three months prior to P&E: project description, title sheet, typical cross sections, layout sheets, stage construction and traffic handling plans, detour plans, construction cost estimates, number of traffic controlling days, project schedule, and a contact person.

Attachments:

- TMP Data Sheet Checklist

ATTACHMENT F
DRAFT STORM WATER DATA REPORT



Dist-County-Route: 03-Pla-80
Post Mile Limits: 0.40
Project Type: Minor A
Project ID (EA): 0320000250 (03-1J500)
Program Identification: _____
Phase: ☐ PID ☒ PA/ED ☐ PS&E

Regional Water Quality Control Board(s): Central Valley Region

- | | | |
|--|------------------------------|--|
| 1. Does the project disturb 5 or more acres of soil? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| 2. Does the project disturb 1 or more acres of soil and not qualify for the Rainfall Erosivity Waiver? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| 3. Is the project required to implement Treatment BMPs? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| 4. Does the project impact existing Treatment BMPs? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |

If the answer to any of the preceding questions is "Yes", prepare a Long Form – Stormwater Data Report. Unless otherwise agreed upon by the District/Regional Design Stormwater Coordinator.

Total Disturbed Soil Area: 0.05 Acre New Impervious Surface: 0 Acre
Estimated Const. Start Date: 06/1/2022 Estimated Const. Completion Date: 6/30/2022
Risk Level: RL 1 ☐ RL 2 ☐ RL 3 ☐ Not Applicable ☒
Is MWELO applicable? Yes ☐ No ☒ WPCP

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

Daniel Tecle, Registered Project Engineer *Date*

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

[Stamp Required at PS&E only]

[Name], District/Regional Design SW Coordinator or *Date*
Designee

1. Project Description

This project proposes to Modify the existing ramp meter by metering the HOV Preferential Lane. Currently, eastbound I-80 at Auburn Blvd/Riverside slip on ramp has two metered lanes and a third *unmetered* high-occupancy vehicle (HOV) lane.

The work includes:

- Modify the existing ramp meter located at , Eastbound I-80 at Auburn Blvd/Riverside slip on ramp by by metering the HOV Preferential Lane, install Type 1-D Modifiefd Flashing Beacon, upgrade advanced sign to current standard and extend the existing limit line to include the HOV lane. Remove and replace the existing Mast Arm.
Power and telephone conduits installations by means of a directional drilling or trenching

Total Disturbed Area:

The total Disturbed Soil Area (DSA) is approximately 0.05 Acres was calculated by considering the area of foundation for Signs & trenching for electoral conduit installation.

The total project area is approximately 2.5 acres.

Formula NIS = NNI+RIS-EIA was used to calculate NIS. Staging area was not included in the DSA calculations.

The total combined Net Impreviious Surface (NIS) area is approximately 0.03 acres.

DSA (acres)	Existing Impervious Area (acres)	Post Impervious Area (acres)	Net New Impervious Area (NNI) (acres)	Replaced Impervious Surface (RIS) (acres)	Excluded Impervious Area (EIA) (acres)	New Impervious Surface (NIS) (acres)	ATA #1 (acres)	ATA #2 (acres)	PCTA (acres)
0.10	0.50	0.50	0.00	0.0	0.0	0.00	0.0	0.0	0.0

Per Section 4.4.1 of the PPDG, July 2017, post-construction treatment area (PCTA) is required for New Impervious Surface (NIS) that equals or exceeds one acre or more or 5000 sf on non-highway projects. The Post Construction Treatment Area (PCTA) for this project is under the threshold requirement, and therefore PCTA=0 acres.

$PCTA = (NIS + ATA\#1 + ATA\#2)$ (Applicable when NIS is over 1 acre or 5,000 sf on non-ghighway projects)

$NIS = NNI + RIS - EIA$

ATA = Additional Treated Area

EIA = Sidewalk, Pedestrian, Separate Bikeways Area, and areas over paved areas (Any area of a bridge that goes over a road needs to be excluded)

- This project is not subject to the treatment threshold requirements of the 2012 CT MS4 Permit.

2. Site Data and Stormwater Quality Design Issues

- Project does not have the potential to create Water Quality impacts. A Water Quality Assessment Exemption Checklist will be prepared.
- The additional impervious area will not impact runoff within the uncertainty of the equations. The project will not change the existing flow path, flow volumes, hydraulic line capacity, or grade of drainage facilities. A Drainage Report Exemption concurrence has been signed by Chris Rockey on 02/25/2021.
- A 401 Permit is not required.
- This project is not required to consider Treatment BMPs.
- According to the August 8, 2020 Caltrans Maintenance IMMS Report System, there is no existing Treatment BMP within the project limits. This project will not impact any existing Treatment BMPs.

3. Construction Site BMPs

- The Contractor is responsible for securing locations for staging and storage that are approved by the Resident Engineer (RE). The project will be constructed under a contractor prepared Water Pollution Control Program (WPCP) approved by RE.
- Temporary Concrete Washout has been identified as a line item BMPs. Additional BMPs will be deployed as lump sum items under Job Site Management, Prepare WPCP, and Additional Water Pollution Control as shown in the attached North Region Construction BMP Estimator.
- Dusty Giffin, South and Sacramento Area Construction Stormwater Coordinator reviewed and concurred with this strategy in an email on XX/XX/XX

Required Attachments¹

- Vicinity Map
- Evaluation Documentation Form
- Construcion BMP Estimate (for internal Caltrans use only) (at PS&E only).
- Construcion Concurrence Email.

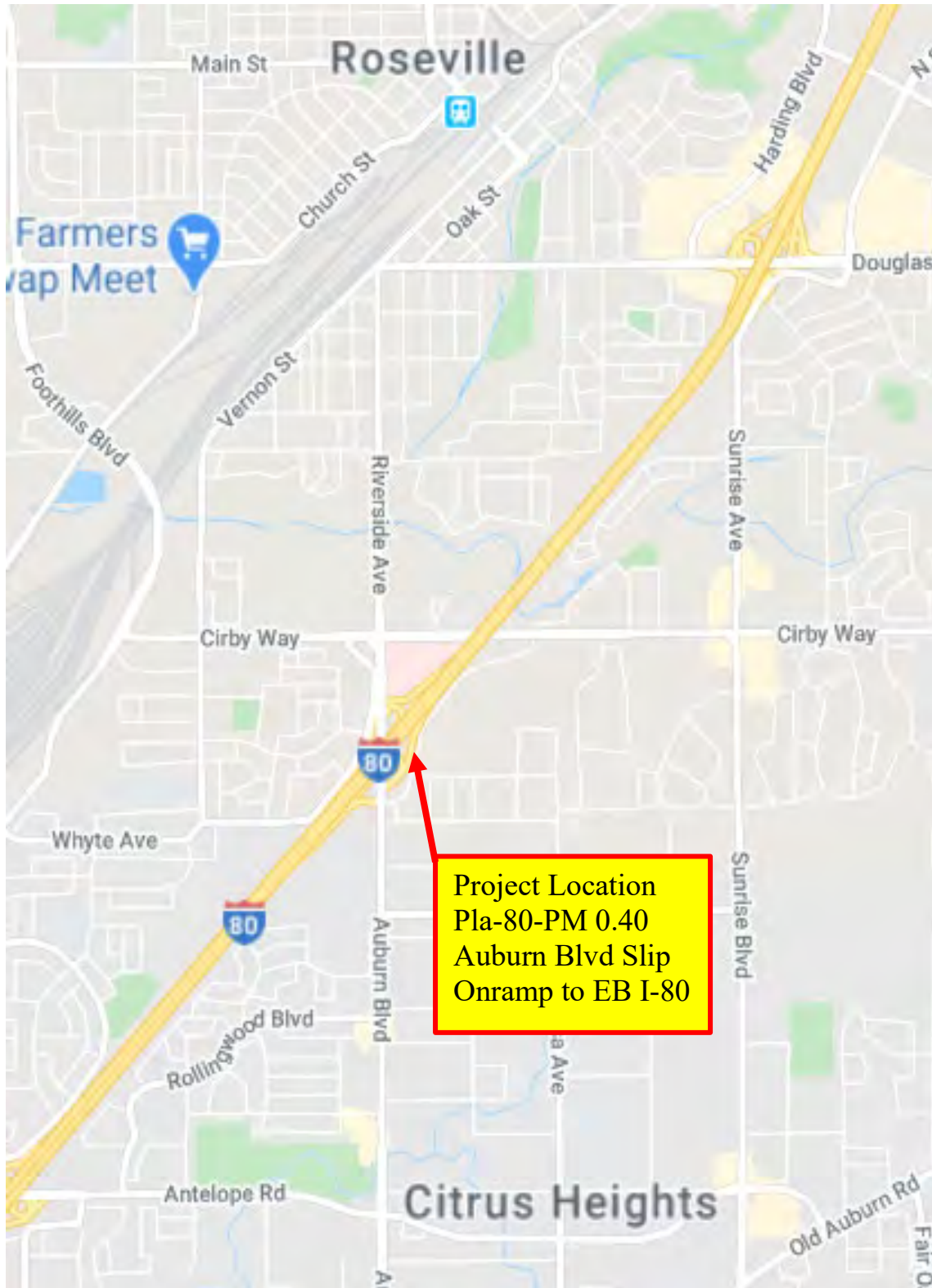
¹ Additional attachments may be required as applicable or directed by the District/Regional Design Storm Water Coordinator (e.g., BMP line item estimate, SW, DPP, and CS Checklists).

DATE: 3/2/2021

Project ID (EA): 0320000250 (03-1J5001)

No.	Criteria	Yes ✓	No ✓	Supplemental Information for Evaluation
1.	Begin Project evaluation regarding requirement for implementation of Treatment BMPs	✓		See Figure 4-1, Project Evaluation Process for Consideration of Treatment BMPs. Continue to 2.
2.	Is the scope of the Project to install Treatment BMPs (e.g., Alternative Compliance or TMDL Compliance Units)?		✓	If Yes , go to 8. If No , continue to 3.
3.	Is there a direct or indirect discharge to surface waters?	✓		If Yes , continue to 4. If No , go to 9.
4.	As defined in the WQAR or ED, does the project: a. discharge to Areas of Special Biological Significance (ASBS), or b. discharge to a TMDL watershed where Caltrans is named stakeholder, or c. have other pollution control requirements for surface waters within the project limits?		✓	If Yes to any , contact the District/Regional Design Stormwater Coordinator or District/Regional NPDES Coordinator to discuss the Department's obligations, go to 8 or 5. _____(Dist./Reg. Coordinator initials) If No to all, continue to 5.
5.	Are any existing Treatment BMPs partially or completely removed? (ATA Condition 1, Section 4.4.1)		✓	If Yes , go to 8 AND continue to 6. If No , continue to 6.
6.	Is this a Routine Maintenance Project?		✓	If Yes , go to 9. If No , continue to 7.
7.	Does the project result in an increase of <u>one acre or more</u> of new impervious surface (NIS)?		✓	If Yes , go to 8. If No , go to 9.
8.	Project is required to implement Treatment BMPs.	Complete Checklist T-1, Part 1.		
9.	Project is not required to implement Treatment BMPs. _____(Dist./Reg. Design SW Coord. Initials) DT (Project Engineer Initials) 3/2/21 (Date)	Document for Project Files by completing this form and attaching it to the SWDR.		

Vicinity Map



DATE: 3/2/2021

Project ID (EA): 0320000250 (03-1J5001)

No.	Criteria	Yes ✓	No ✓	Supplemental Information for Evaluation
1.	Begin Project evaluation regarding requirement for implementation of Treatment BMPs	✓		See Figure 4-1, Project Evaluation Process for Consideration of Treatment BMPs. Continue to 2.
2.	Is the scope of the Project to install Treatment BMPs (e.g., Alternative Compliance or TMDL Compliance Units)?		✓	If Yes , go to 8. If No , continue to 3.
3.	Is there a direct or indirect discharge to surface waters?	✓		If Yes , continue to 4. If No , go to 9.
4.	As defined in the WQAR or ED, does the project: a. discharge to Areas of Special Biological Significance (ASBS), or b. discharge to a TMDL watershed where Caltrans is named stakeholder, or c. have other pollution control requirements for surface waters within the project limits?		✓	If Yes to any , contact the District/Regional Design Stormwater Coordinator or District/Regional NPDES Coordinator to discuss the Department's obligations, go to 8 or 5. _____(Dist./Reg. Coordinator initials) If No to all, continue to 5.
5.	Are any existing Treatment BMPs partially or completely removed? (ATA Condition 1, Section 4.4.1)		✓	If Yes , go to 8 AND continue to 6. If No , continue to 6.
6.	Is this a Routine Maintenance Project?		✓	If Yes , go to 9. If No , continue to 7.
7.	Does the project result in an increase of <u>one acre or more</u> of new impervious surface (NIS)?		✓	If Yes , go to 8. If No , go to 9.
8.	Project is required to implement Treatment BMPs.	Complete Checklist T-1, Part 1.		
9.	Project is not required to implement Treatment BMPs. _____(Dist./Reg. Design SW Coord. Initials) DT (Project Engineer Initials) 3/2/21 (Date)	Document for Project Files by completing this form and attaching it to the SWDR.		

TEMPORARY CONSTRUCTION BMP COST ESTIMATOR						
FOR INTERNAL USE ONLY- DO NOT PROVIDE TO CONTRACTOR						
EXPENDITURE AUTHORIZATION:		03-1J5001		Rev	01/13/20	
COUNTY, ROUTE, PM:		Pla-80-0.40		Risk Level	WPCP	CONTRACT WORKING DAYS: 20
DESCRIPTION:		Auburn Blvd Ramp Meters		Erodible Surface to be stabilized (acres):	0.1	P&E DATE: 4/1/2021
REGIONAL BOARD:		Central Valley				PS&E DATE: 6/7/2021
						Begin Construction 6/1/2022
						End Construction 6/30/2022
SS/SSP	ITEM CODE	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE ¹	AMOUNT ¹
13-3	130300	Prepare SWPPP	LS	0	\$0	\$0
13-2	130200	Prepare WPCP	LS	1	\$1,000	\$1,000
13-3.01	130310	Rain Event Action Plan (REAP)	EA	0	\$500	\$0
13-3.01	130330	Stormwater Annual Report	EA	0	\$2,000	\$0
13-3.01	130320	Stormwater Sampling and Analysis Day	EA	0	\$0	\$0
13-4	130100	Job Site Management	LS	1	\$3,000	\$3,000
Tracking Controls						
13-7.03D	130730	Street Sweeping	LS	1	\$0	\$0
13-7.01	130710	Temporary Construction Entrance/Exit	EA	0	\$0	\$0
Sediment Control/Perimeter Control						
13-6.03E	130640	Temporary Fiber Roll (6")	FT	0	\$4	\$0
13-6.03G	130660	Temporary Large Sediment Barrier (18-22" Fiber Roll)	FT	0	\$0	\$0
13-6.03I	130680	Temporary Silt Fence	FT	0	\$0	\$0
13-6.03H	130670	Temporary Reinforced Silt Fence	FT	0	\$0	\$0
13-6.03B	130610	Temporary Check Dam	LF	0	\$0	\$0
13-6.03F	130650	Temporary Gravel Bag Berm	LF	0	\$0	\$0
13-6.03C	130620	Temporary Drainage Inlet Protection	EA	0	\$0	\$0
Non-Stormwater						
13-9.01	130900	Temporary Concrete Washout - Portable	LS	1	\$500	\$500
13-1.01D(5)(b)	131103	Water Quality Sampling and Analysis Day	EA	0	500	\$0
13-1.01C(4)(C)	131104	Water Quality Monitoring Report	EA	0	500	\$0
13-1.01C(4)(d)	131105	Water Quality Annual Report	EA	0	2,000	\$0
Temporary Soil Stabilization						
13-5.01	130505	Move-in/Move-out (Temporary Erosion Control)	EA	0	\$500	\$0
13-5.03E	130530	Temporary Hydraulic Mulch (Bonded Fiber Matrix)	SQ YDS	0	\$4	\$0
		Temporary Hydraulic Mulch (Mechanically Stabilized Fiber Matrix)	SQ YDS	0	\$0	\$0
13-5.03D	130520	Temporary Hydraulic Mulch	SQ YDS	0	\$0	\$0
13-5.03H	130540	Temporary Tacked Straw	SQ YDS	0	\$0	\$0
13-5.03J	130560	Temporary Soil Binder	SQ YDS	0	\$0	\$0
13-5.03C	130510	Temporary Mulch	SQ YDS	0	\$0	\$0
13-5.03B	130500	Temporary Erosion Control Blanket	SQ YDS	0	\$0	\$0
13-502.F	130570	Temporary Cover	SQ YDS	0	\$0	\$0
State Furnished Items						
	066916	Construction General Permit Fees (State Furnished Item)	LS	0	\$0	\$0
Supplemental Items						
	066596	Additional Water Pollution Control	LS	1	\$1,100	\$1,100
	066595	Water Pollution Control Maintenance Sharing	LS	0	\$0	\$0
	066597	Stormwater Sampling and Analysis	LS	0	\$0	\$0
FOR INTERNAL USE ONLY- DO NOT PROVIDE TO CONTRACTOR					Total = \$5,600	
1. - No Time Related Overhead should be included in the Unit Price or Amount 2. - Use the PPDG Table F-2 to show the percentage of cost allocated for Stormwater BMP's 3. - This reflects the amount that would be estimated if the PPDG planning level formula was used. 4. - Percentage of the Estimated Project Cost allocated for CBMPs				Estimated Project Cost = \$350,000		
				Percent Allocated ² (PPDG) = 3.25%		
				Planning Estimate ³ = \$11,375.00		
				CBMPs Percentage of Project Estimate ⁴ = 1.6%		

ATTACHMENT G
LANDSCAPE ARCHITECTURE ASSESSMENT SHEET



**NORTH REGION
LANDSCAPE ARCHITECTURE ASSESSMENT SHEET**
03-LAND-0002 (Rev. x/xx)

TO: Daniel Teclé FROM: Kathryn Lugo Unit/Senior: 0381/Nicki Johnson Project Manager: Corey Chan	DISTRICT: 03 DATE: 3-3-2021 EA: 03-1J500 ID: 0320000250	CO: Pla	RTE: 80	PM: 0.40																			
CONTRACT SEPARATION: <input checked="" type="checkbox"/> Roadside work as part of roadway work EA <input type="checkbox"/> Roadside work for roadway project to follow under separate EA	PROJECT: Auburn Blvd Ramp Meter FUNDING SOURCE: SHOPP - Minor A PROJECT MILESTONE: <input type="checkbox"/> PID <input checked="" type="checkbox"/> PA&ED <input type="checkbox"/> PS&E M200 – 4/1/2021 M377 – 6/7/2021 M460 – 8/2/2021 PROJECT COST (In thousands): <div style="text-align: right;"> DISTRICT (x1000) \$350 STRUCTURES (x1000) \$0 </div>																						
PROJECT DESCRIPTION <p>The purpose of this project is to modify existing ramp meter on Eastbound I-80 State Route (SR) 80 slip on-ramp at Auburn Blvd/Riverside Avenue, which experiences traffic congestion during peak hours.</p> <p>The project proposes the following:</p> <ul style="list-style-type: none"> • Modify existing ramp meter by metering the HOV Preferential Lane • Remove/replace the existing ramp meter system by using directional drilling or trenching under the slip on-ramp to install the vehicle detection loops, power and telephone conduits 																							
SCENIC HIGHWAY STATUS <div style="float: right;"> <input type="checkbox"/> Officially Designated <input checked="" type="checkbox"/> Eligible <input type="checkbox"/> Not Designated </div>																							
HIGHWAY PLANTING/IRRIGATION BACKGROUND INFORMATION <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">LANDSCAPE FREEWAY STATUS</td> <td style="width: 10%;"><input checked="" type="checkbox"/> Yes *</td> <td style="width: 10%;"><input type="checkbox"/> No</td> <td rowspan="6" style="width: 40%; vertical-align: top; border: 1px solid black; padding: 5px;"> <div style="color: red; font-weight: bold;">**See Comments on page 2 under "Classified Landscape Freeway"</div> <div style="margin-top: 10px;">Where: _____</div> <div style="margin-top: 5px;">Where: _____</div> </td> </tr> <tr> <td>WARRANTED HIGHWAY PLANTING</td> <td><input type="checkbox"/> Yes</td> <td><input checked="" type="checkbox"/> No</td> </tr> <tr> <td>(E) H2O & POWER AVAILABLE</td> <td><input type="checkbox"/> Yes</td> <td><input checked="" type="checkbox"/> No</td> </tr> <tr> <td>(E) IRRIGATION IMPACTED</td> <td><input type="checkbox"/> Yes</td> <td><input checked="" type="checkbox"/> No</td> </tr> <tr> <td>COOP. MAINT. AGREEMENTS</td> <td><input type="checkbox"/> Yes</td> <td><input checked="" type="checkbox"/> No</td> </tr> <tr> <td>ADJ. TO OUTDOOR ADVERTISING</td> <td><input type="checkbox"/> Yes</td> <td><input checked="" type="checkbox"/> No</td> </tr> </table> <p>AREA (Ft²/ACRE) FOR HIGHWAY PLANTING: N/A</p>					LANDSCAPE FREEWAY STATUS	<input checked="" type="checkbox"/> Yes *	<input type="checkbox"/> No	<div style="color: red; font-weight: bold;">**See Comments on page 2 under "Classified Landscape Freeway"</div> <div style="margin-top: 10px;">Where: _____</div> <div style="margin-top: 5px;">Where: _____</div>	WARRANTED HIGHWAY PLANTING	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	(E) H2O & POWER AVAILABLE	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	(E) IRRIGATION IMPACTED	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	COOP. MAINT. AGREEMENTS	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	ADJ. TO OUTDOOR ADVERTISING	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
LANDSCAPE FREEWAY STATUS	<input checked="" type="checkbox"/> Yes *	<input type="checkbox"/> No	<div style="color: red; font-weight: bold;">**See Comments on page 2 under "Classified Landscape Freeway"</div> <div style="margin-top: 10px;">Where: _____</div> <div style="margin-top: 5px;">Where: _____</div>																				
WARRANTED HIGHWAY PLANTING	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No																					
(E) H2O & POWER AVAILABLE	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No																					
(E) IRRIGATION IMPACTED	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No																					
COOP. MAINT. AGREEMENTS	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No																					
ADJ. TO OUTDOOR ADVERTISING	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No																					
EROSION CONTROL BACKGROUND INFORMATION <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">SOIL DISTURBANCE</td> <td style="width: 10%;"><input checked="" type="checkbox"/> Yes</td> <td style="width: 10%;"><input type="checkbox"/> No</td> </tr> <tr> <td>CONCENTRATED FLOW AREAS</td> <td><input type="checkbox"/> Yes</td> <td><input checked="" type="checkbox"/> No</td> </tr> <tr> <td>SLOPE LOCATIONS</td> <td><input type="checkbox"/> Yes</td> <td><input checked="" type="checkbox"/> No</td> </tr> <tr> <td>SLOPES > 2:1</td> <td><input type="checkbox"/> Yes</td> <td><input checked="" type="checkbox"/> No</td> </tr> </table> <p>AREA (Ft²/ACRE) FOR EROSION CONTROL: 6,000 SQFT</p> <p>Stormwater: The stormwater data report indicated no Treatment BMPs are required and no existing treatment BMPs will be impacted as a result of the project.</p>					SOIL DISTURBANCE	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	CONCENTRATED FLOW AREAS	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	SLOPE LOCATIONS	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	SLOPES > 2:1	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No							
SOIL DISTURBANCE	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No																					
CONCENTRATED FLOW AREAS	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No																					
SLOPE LOCATIONS	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No																					
SLOPES > 2:1	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No																					



**NORTH REGION
LANDSCAPE ARCHITECTURE ASSESSMENT SHEET**
03-LAND-0002 (Rev. x/xx)

MITIGATION BACKGROUND INFORMATION

PROJECT BIOLOGIST: William Ragan

Contact Date: 07/15/2020

BIOLOGICAL REVEG. REQUIRED ☐ Yes ☒ No

Applicable Permits: None

VISUAL IMPACT MIT. REQUIRED ☐ Yes ☒ No

UNIT TASKED w/ BIO. REVEG. ☐ Landscape Architecture ☐ Stewardship N/A

PLANT COUNT FOR MITIGATION PLANTING: None

ROADSIDE MAINTENANCE SAFETY NEEDS: N/A

CONTEXT SENSITIVITY

- ☐ It is determined that the project may involve consideration of community and local involvement.
☒ No foreseen issues with community and local involvement

CONSIDER ADDITIONAL AESTHETIC TREATMENT FOR: None

COST ESTIMATE FOR EROSION CONTROL

Item	Unit	Total
Bonded Fiber Matrix (BFM)	SF	\$1,200.00
Irrigation Components and Planting	LS	\$3,000.00
Check and Test Irrigation Facilities	LS	\$10,000.00
Operate Existing Irrigation Facilities	LS	\$5,000.00
Supplemental Item		
Repair Existing Irrigation	LS	\$5,000.00
Total Cost Estimate		\$24,200.00

COMMENTS FROM LANDSCAPE ARCHITECTURE:

Classified Landscape Freeway

- The project area is Classified Landscape Freeway per the Classified Landscape Freeway list found on <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-b-classified-landscaped-freeways> (Pla 80, PM 0.00/1.70)
- Irrigation system will be impacted. LAAS includes cost estimate for irrigation.
- Cost estimate is based on the layout plan provided by PE on 3/1/2021.

Visual Impact Assessment (VIA)

- VIA to determine visual or scenic resources within the project limit has not been prepared.



NORTH REGION
LANDSCAPE ARCHITECTURE ASSESSMENT SHEET
03-LAND-0002 (Rev. x/xx)

PREPARED BY: *Kathryn Lugo* DATE: 3/3/2021
(Landscape Architecture – Kathryn Lugo)

CONCURRED BY: *Daniel Kwong* DATE: 03/04/2021
(Project Manager – Daniel Kwong)

APPROVED BY: *Nicki Johnson* DATE: 3/3/2021
(DLA – Nicki Johnson)

ATTACHMENT H
DRAINAGE REPORT EXEMPTION

Memorandum

*Serious drought.
Help Save Water!*

To: MR. Chris Rockey
Hydraulics Branch Chief, (Marysville)
Office of Engineering Services
NR Division of Engineering

Date: February 24, 2021

File: 03-Pla-80-PM 0.40
03-1J500
Project ID# 0320000250

From: MR. Daniel Tecle
Branch (03-0391)
Office of Traffic Safety
Division of Traffic Operations

Subject: DRAINAGE REPORT EXEMPTION

The Office of Traffic Safety is currently working on a Project Report, for the above referenced project. The PA&ED & PS&E scheduled for 4/1/2021 and 6/07/2021 respectively.

This project proposes to modify the existing ramp meter by metering the HOV Preferential Lane. Work includes remove/replace the existing ramp meter system, saw cutting pavement for the vehicle detection loops, power and telephone conduits installations by means of a directional drilling or trenching under the EB I-80 at Auburn Blvd/Riverside slip on ramp & EB I-80 loop off ramp to Riverside Avenue.

A maintenance vehicle pullout, MVP, will be included. MVP work will include roadway excavation, earthwork and HMA paving.

There will be no work performed that will alter existing drainage patterns or result in an increase in runoff. The existing flow lines will not be modified.

There will be no impact on and therefore no modifications required to existing storm water runoff conveyance facilities. No drainage impact to properties outside State right of way is anticipated. The nature of this project is such that the components of a Drainage Report do not apply for this project.

No Drainage Report is required for this project.

Concur:


(Signature - District Hydraulics Engineer)

2-25-2021

(Date)

ATTACHMENT I
HAZARDOUS WASTE, INITIAL SITE ASSESSMENT

M e m o r a n d u m

To: Daniel Tecle
Project Engineer
703 B Street
Marysville CA 95901

Date: March 22, 2021

File No: 03-Pla-80
PM 0.4
Ramp Metering Project
EA: 03-1J500
EFIS: 0320000250

From: DEPARTMENT OF TRANSPORTATION
Office of Environmental Engineering – South (OEES)

Subject: Initial Site Assessment (ISA)

An ISA has been prepared for your above referenced project. The project proposes to install ramp meters at Auburn Boulevard. No new r/w will be required. Soil and vegetation will be disturbed during construction. Based on the proposed project scope and location, the following Hazardous Waste issues were considered:

Naturally Occurring Asbestos (NOA) - A geologic evaluation regarding Naturally Occurring Asbestos (NOA) was conducted within the project limits. This evaluation included a review of geologic maps and reports including data prepared by the California Geological Survey (CGS) and the United States Geological Survey (USGS), previous studies conducted by Caltrans and their consultants, and a field inspection of the geology in the project area. The evaluation **does not** indicate the presence of altered ultramafic bedrock, alluvium derived from ultramafic rock, or other rock commonly associated with NOA.

Cortese List - The Cortese List is a compilation of contaminated sites identified by the State of California- State Water Resource Control Board; active, closed, and inactive landfills identified by the Integrated Waste Management Board; and potential hazardous waste sites identified by the Department of Toxic Substance Control. This list was reviewed as part of the initial screening for this project. The list, or a property's presence on the list, has bearing on the local permitting process as well as on compliance with the California Environmental Quality Act (CEQA). The proposed project **is not** within or impacting any site on the Cortese List.

Lead in Soil - Low levels of lead from combustion Low levels of lead from historical combustion of leaded fuel is commonly associated with the highway system. To address this issue SSP 7-1.02K(6)(j)(iii) should be included in the final project PS&E and listing packages.

Thermoplastic/Paint Stripe/Pavement Marking - Thermoplastic paint may contain lead of varying concentrations depending upon color, type and year of manufacture. To address this issue SSP 36-4 should be included in the final project PS&E and listing packages.

Treated Wood Waste (TWW) - TWW may not be relinquished to the contractor and must be disposed of at an appropriately permitted disposal facility or be reused on the originating project in a manner consistent with the original intended use. Additionally, regulations specify the manner in which TWW must be stored while awaiting disposal. If TWW will be generated during this project (from removal of old treated wood or from the placement of new treated wood) SSP 14-11.14 should be included in the final project PS&E and listing packages.

The project may be constructed without any other NSSP's, SSP's, or restrictions from OEES. If there are any significant changes to the project scope, or if new information is identified, please contact the OEES, as soon as reasonably possible so the significance of the information and the need for additional studies can be assessed. If you have any questions or comments, please feel free to call me at (530) 720-5197.

Mark Melani

Mark Melani,
Office of Environmental Engineering – South

cc: File
Masum Patwary, Associate Environmental Planner
(Electronic copy only)

ATTACHMENT J
PROGRAMMING SHEET AND RESOURCES

Programming Sheet with Risk and OE



AMS ID: 0320000250

EA: 03-1J500

COUNTY: PLA

ROUTE: 080

POSTMILE: .4/.4

Project Manager: KWONG, DANIEL R	PM Assistant: ADER, KIMBERLY A	Project Nickname: Auburn Blvd Ramp Meter
Project Description - Long: In Placer County on I-80 in Roseville at the EB on ramp from Auburn Blvd.		
Work Description - Long: Install ramp metering.		
PPNO: 5147	Program: other-state- RPT: No	Funding No
Open for Time: No	Subprogram: Other State Funds	CT Status: APL
10 Yr SHOPP: No	AADD: No	Dist SB1 SCCP
		PROGRAM YR: 2022
		Working Days: 20
		RMP: RMP Date:
		FED Aid Eligible:

MS	MS Description	MS Date	
M000	ID NEED	06/09/2020	(A)
M015	PROG PROJ	06/25/2020	(A)
M020	BEGIN ENVIRO	07/13/2020	(A)
M040	BEGIN PROJ	07/06/2020	(A)
M200	PA&ED	04/16/2021	(T)
M300	CIRC PLANS IN DIST	04/26/2021	(T)
M377	PS&E TO DOE	06/07/2021	(T)
M410	R/W CERT	07/19/2021	(T)
M460	RTL	08/02/2021	(T)
M470	FUND ALLOCATION	10/13/2021	(T)
M480	HQ ADVERT	11/15/2021	(T)
M490	BIDS OPEN	12/15/2021	(T)
M495	AWARD	01/14/2022	(T)
M500	APPROVE CONTRACT	02/15/2022	(T)
M600	CONTRACT ACCEPT	10/03/2022	(T)
M700	FINAL REPORT	10/02/2023	(T)
M800	END PROJ EXP	04/02/2024	(T)
M900	FINAL PROJ	03/03/2025	(T)

Env		
Capital Cost Estimates (\$k)		
	Amount \$k	EST Date
Roadway	338	03/29/21
Structures	0	
Const Total	338	
ROW	0	03/08/21
Total	338	
Risk & Operating Expense Budget		
	Risk Bud. (\$k)	OE (\$k)
Phase 0 - PAED	\$0	\$0
Phase 1 - PS&E	\$0	\$0
Phase 2 - RW	\$0	\$0
Phase 3 - Con	\$0	\$0
Phase 4 - Con Cap	\$0	\$0
Phase 9 - RW Cap	\$0	\$0
Total	\$0	\$0
Note: For Phase 0, 1, 2 and 3, only enter Risk Budget amount if not already entered in PRSM		

Funding Info (\$k)						
Fund Source	PA&ED	PS&E	ROW	CON	ROW CAP	CON CAP
2010705.100	0	0	0	150	0	0
2020705.100	0	0	0	0	0	350
2010201.315	30	0	0	0	0	0
2010400.210	50	100	5	0	0	0
2020400.210	0	0	0	0	5	0
Total:	80	100	5	150	5	350

Capital Cost Est.(\$k)	
FY Mid M500-M600	2022
CC Escalation %:	3.20%
CC Escalated \$:	349
ROW CAPITAL:	0
TOTAL:	349

PROJECT SUPPORT COSTS (\$k)										
Phase Esc. Rate	PRIOR ACT \$	FY20/21 ETC (0.00%)	FY21/22 (2.00%)	FY22/23 (3.00%)	FY23/24 (3.00%)	FY24/25 (3.00%)	Future (3.00%)	Total	Sup/Cap %	
0	30	50	0	0	0	0	0	80	22.80%	
1	0	66	34	0	0	0	0	100	28.68%	
2	0	1	2	2	1	0	0	5	1.50%	
3	0	0	69	68	8	0	0	145	41.55%	
TOTAL SUPPORT COSTS:								330	94.53%	
TOTAL PROJECT COSTS:								679		

PROJECT SUPPORT PYs									
Division	PRIOR ACT PYs	2021 ETC PYs	2022 ETC PYs	2023 ETC PYs	2024 ETC PYs	2025 ETC PYs	Future ETC PYs	Total ETC PYs	
03 ESR	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.03	
03 CONS	0.00	0.04	0.22	0.16	0.01	0.00	0.00	0.43	
03 ENVM	0.00	0.02	0.02	0.01	0.00	0.00	0.00	0.05	
03 ESRV	0.02	0.13	0.07	0.01	0.00	0.00	0.00	0.23	
03 PPM	0.01	0.04	0.01	0.02	0.01	0.00	0.00	0.09	
03 RWLS	0.02	0.06	0.03	0.02	0.00	0.00	0.00	0.13	
03 SURV	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.02	
03 TPLN	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.02	
03 TROP	0.06	0.20	0.12	0.09	0.01	0.00	0.00	0.48	
03 TOTALS :	0.14	0.52	0.48	0.31	0.03	0.00	0.00	1.48	
PROJECT TOTALS:	0.14	0.52	0.48	0.31	0.03	0.00	0.00	1.48	

Comments:

ATTACHMENT K

RISK REGISTER

EA 1J500 03-1J500 Auburn Blvd Ramp Meters - ACTIVE RISK REGISTER

Risk 001	No Active Risks	RBS: PPM	Owner: Daniel Kwong	Updated: 3-25-2021
Description	No active risks at this time.			
Status				
Response Options				
Impacts				
	Probability		Costs (dollars)	
			Capital	Support
			Delays (days)	
Optimistic				Construction
Most Likely		%		
Pessimistic		%		
Assessment Notes				

APPENDIX B
TO
PROJECT BASELINE AGREEMENT

Placer-Sacramento Gateway - Phase 1

SOUTH PLACER TRANSIT
IMPLEMENTATION PLAN
FINAL REPORT



LINCOLN EXPRESS SERVICE IMPLEMENTATION PLAN FINAL REPORT

PLACER COUNTY TRANSPORTATION PLANNING
AGENCY

FINAL

DATE: JUNE 2020

WSP
2150 RIVER PLAZA DRIVE, SUITE 400
SACRAMENTO, CA 95833
WSP.COM



TABLE OF CONTENTS

- 1 INTRODUCTION..... 1
 - 1.1 Study Background 1
 - 1.2 Report Structure..... 1
- 2 EXISTING CONDITIONS 2
 - 2.1 Project Area..... 2
 - 2.2 Demographics, Employment and CalEnviroScreen 3.0 and Disadvantaged Communties..... 3
 - 2.2.1 Demographics 3
 - 2.2.2 Employment 5
 - 2.2.3 CalEnviroScreen 3.0 8
 - 2.3 Transit Service 9
 - 2.3.1 Placer County Operators 9
 - 2.3.2 Sacramento Regional Transit 10
- 3 OPERATOR STATISTICS AND COSTS 11
 - 3.1 Operator Selection 11
 - 3.2 Alignment and Stops..... 11
 - 3.3 Schedule..... 15
 - 3.4 Operating Statistics and Cost..... 18
 - 3.5 Capital Cost 19



Tables

TABLE 1 LARGEST EMPLOYERS IN PLACER COUNTY 6

TABLE 2 PLACER COUNTY ROUTES 9

TABLE 3 ROSEVILLE TRANSIT ROUTES 10

TABLE 4 STOP INFORMATION 15

TABLE 4 SOUTHBOUND SCHEDULE 16

TABLE 5 NORTHBOUND SCHEDULE 17

TABLE 7 RT OPERATING INFORMATION..... 18

TABLE 8 OPERATING COST 18

TABLE 9 RECOMMENDED CAPITAL INFRASTRUCTURE..... 19

Maps

MAP 1 PROJECT AREA..... 2

MAP 2 POPULATION DENSITY 3

MAP 3 MINORITY DENSITY 4

MAP 4 JOB DENSITY 7

MAP 5 CALENVIROSCREEN 3.0 8

MAP 6 FINAL ALIGNMENT 13

Appendices

A MEMOS

A-1 Existing Conditions Report

A-2 Potential Route Alignments

A-3 Recommended Solutions for Congested Corridors

A-4 Operator Memo

1 INTRODUCTION

1.1 STUDY BACKGROUND

Placer County Transportation Planning Agency (PCTPA) serves as the Regional Transportation Planning Agency (RTPA) for Placer County (excluding the Lake Tahoe Basin) and is governed by representatives from the six incorporated cities, two members of the Placer County Board of Supervisors, and one citizen representative. In addition to serving as the RTPA, PCTPA has multiple roles within Placer County and the surrounding region that are listed below.

- Designated as the Congestion Management Agency (CMA)
- Statutorily designated member of the Capitol Corridor Joint Powers Authority (CCJPA)
- Administrator of the South Placer Regional Transportation Authority (SPRTA) and Western Placer County Consolidated Transportation Services agency (WPCTSA)
- Represents Placer County jurisdictions in federal planning and programming issues
- Eligible to administer federal projects and funds
- Administers and allocates the Local Transportation Fund (LTF) and State Transit Assistance (STA) funds

PCTPA tasked WSP with developing a Service Implementation Plan (SIP) for an express route between Lincoln, CA and the Blue Line light rail service operated by Sacramento Regional Transit (SacRT). The goals of the project are to alleviate congestion along Interstate 80 (I-80) and California State Route 65 (Highway 65), enhance service to the medical facilities in Roseville, and increase overall transit accessibility between Lincoln, Roseville, and Downtown Sacramento via SacRT's light rail service.

It is estimated that the annual operating cost would be roughly \$1.9 million with another \$7.05 million in capital costs (vehicles, chargers, and infrastructure improvements).

1.2 REPORT STRUCTURE

The following report summarizes the four memos that were developed to plan the service and are included in the appendix for reference.

Existing Conditions

The Existing Conditions sections identifies the demographics, employment, and other community characteristics in the project area.

Operating Statistics and Cost

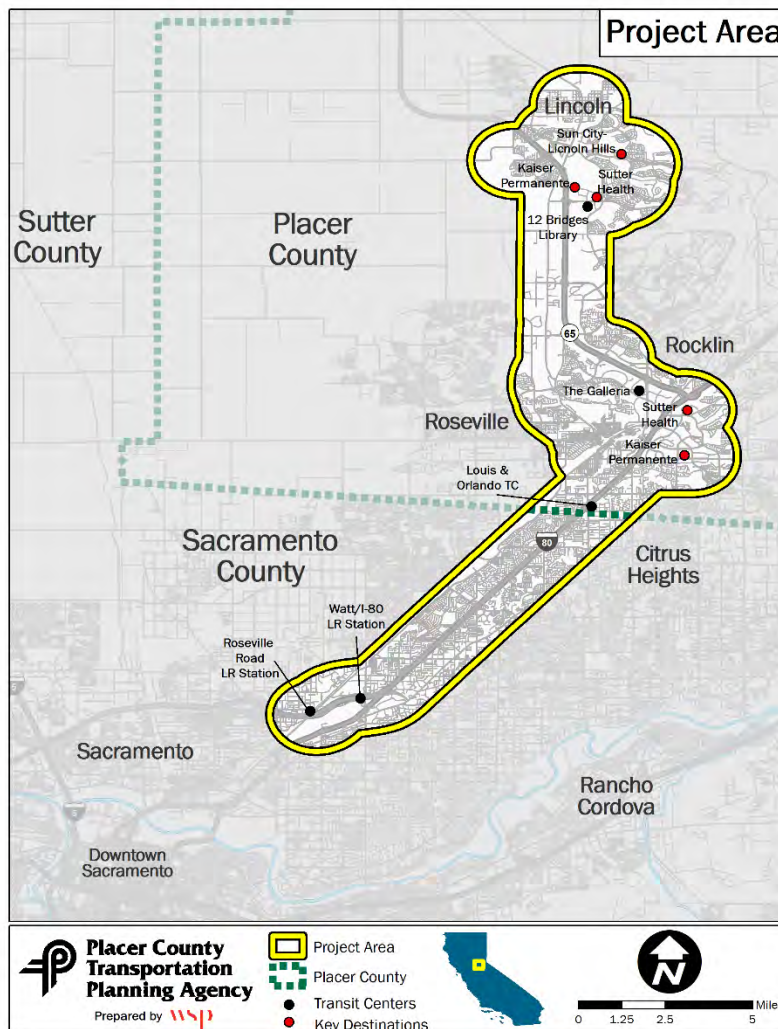
The Operating Statistics and Cost identifies the final alignment that was chosen, a description of how the service will operate, and the estimated capital and operating cost of the service.

2 EXISTING CONDITIONS

2.1 PROJECT AREA

The project area is shown in Map 1, and extends south from the City of Lincoln along Highway 65 to the City of Roseville, and west along I-80 from the City of Roseville to the Watt/I-80 Light Rail Station in North Highlands (Sacramento County). Major activity centers and/or key destinations include the two light rail stations (Roseville Road and Watt/I-80 Stations), Kaiser Hospital, Sutter Hospital, and the Galleria Mall (also a Transit Center). The project area shown in Map 1 was created by creating a buffer a mile from the main corridors and key destinations identified. Both Kaiser and Sutter facilities are shown in Map 1 along with other key destinations like the Sun-City Lincoln Hills senior community and potential transit centers that can be served.

Map 1 Project Area



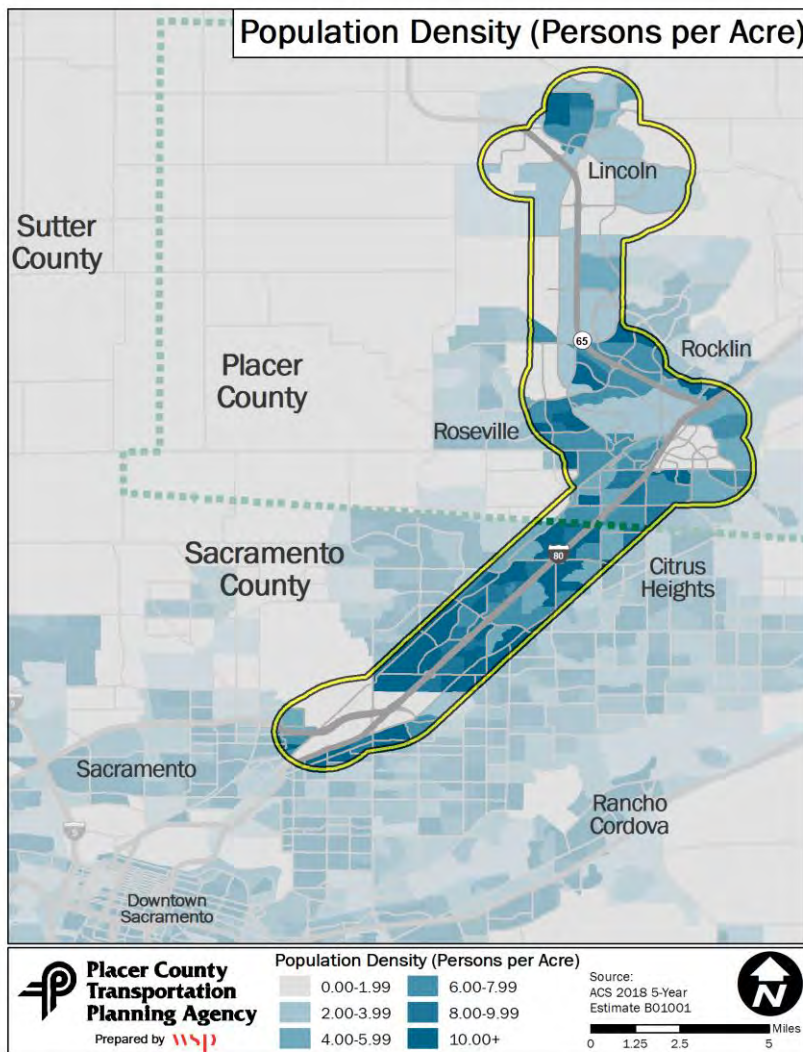
2.2 DEMOGRAPHICS, EMPLOYMENT AND CALENVIROSCREEN 3.0 AND DISADVANTAGED COMMUNITIIES

The following sections provide a brief summary of key demographic and CalEnviroScreen 3.0 Data in the project area that helped inform the development of the service. For a more in-depth look of the demographics of the project area, please see A-1.

2.2.1 DEMOGRAPHICS

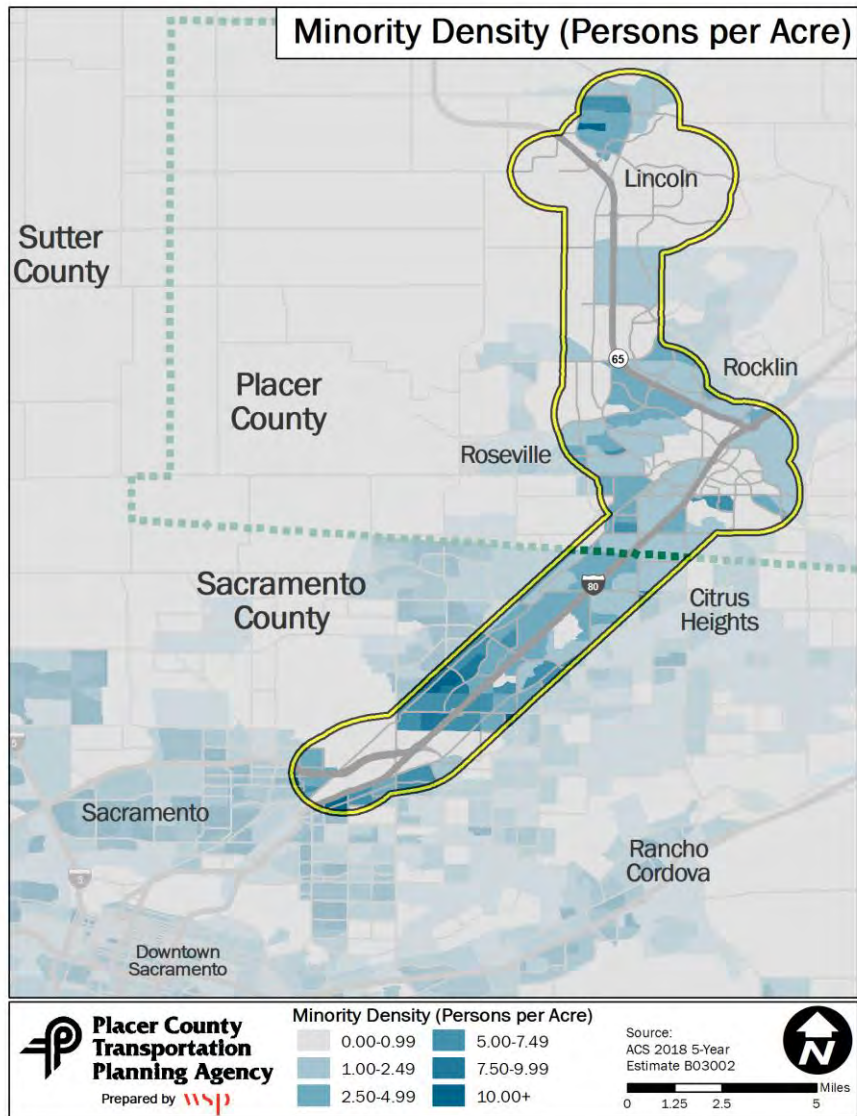
The population density information in Map 2 indicates that the areas in Citrus Heights and Sacramento have the highest density, both of which are located in Sacramento County. Within Placer County, the downtown areas of Lincoln and Roseville and the areas northeast of Highway 65 in Rocklin have the highest densities. One of the main areas in the project area (the business park south of Highway 65 and east I-80) has almost no population density, however the area is one of the most dense job centers in the region.

Map 2 Population Density



Minority populations normally make up a large share of transit ridership and they are a demographic with needs that must be taken into consideration for equity of new services and changes to existing service. Map 3 shows the density of the non-white and Hispanic/Latino origin populations. The highest density of minorities is in Sacramento and in Downtown Lincoln. Roseville also has consistent densities of minorities in the project area.

Map 3 Minority Density



2.2.2 EMPLOYMENT

The top employers in Placer County are listed in Table 1. Sutter Health and Kaiser Permanente are the two largest employers in Placer County (collectively employee 45 percent of the employees in the table below), and 9 of the top 10 employers are in or near the project area. For transit to be successful there usually needs to be a good mix of population and job density.

Map 4 indicates the jobs per acre and the location of the largest employers in the project area. Both Kaiser Permanente and Sutter Health have facilities located in the eastern part of Roseville and near Twelve Bridges Library in Lincoln. The greatest concentration of jobs is near the hospitals in Roseville.

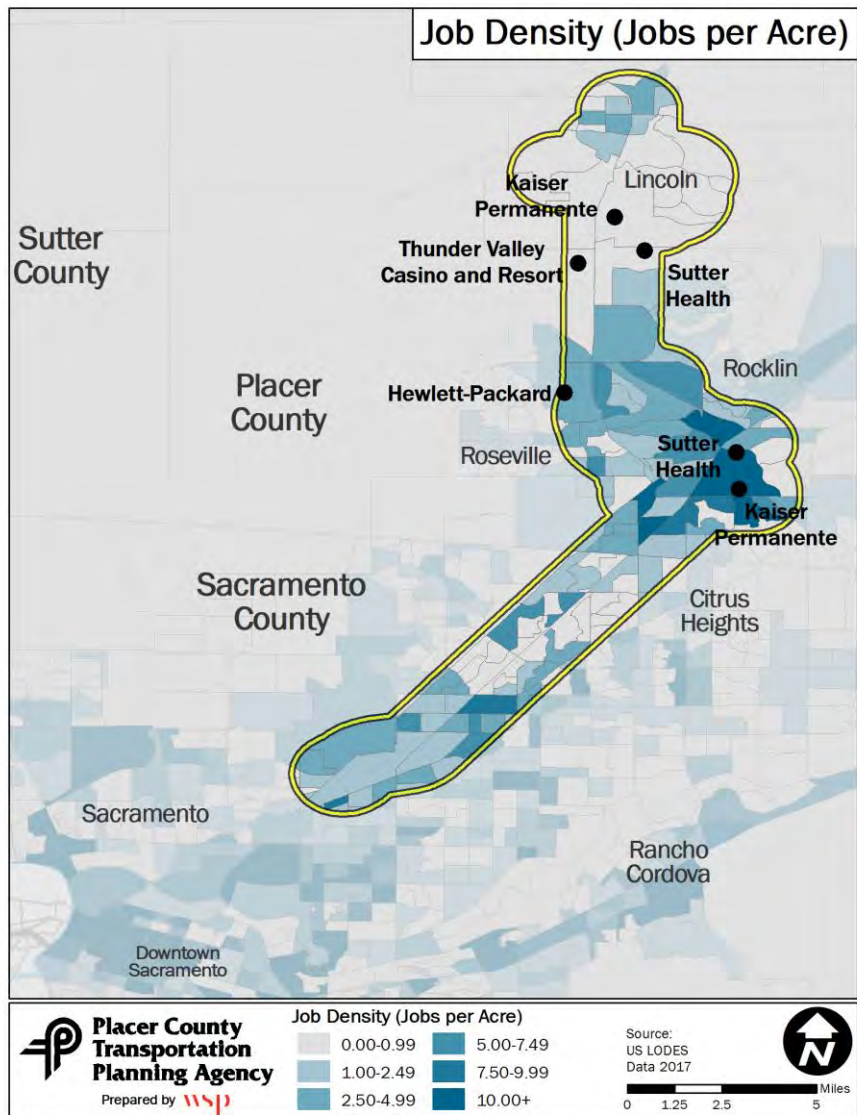
Table 1 Largest Employers in Placer County

Company/Organization	Employees	In Project Area
Sutter Health	5,634	X
Kaiser Permanente	5,609	X
County of Placer	2,898	X
Thunder Valley Casino Resort	2,500	X
Hewlett-Packard Co.	2,000	X
PRIDE Industries	1,646	X
Safeway Inc.	1,189	X
Squaw Valley Alpine Meadows	1,161	
City of Roseville	1,146	X
Union Pacific	1,091	X

Source: 2018 Placer County CAFR

There are two things to note with the table and map. The County of Placer, City of Roseville, Safeway, Inc, and Pride Industries are in the project area, but they do not have a central location and their employees are spread throughout the County. The block group where the Thunder Valley Casino is located shows there is almost no job density. There are nearly 3,460 jobs in that area, but the block group is so large (38,000 acres) that the density is 0.1 jobs per acre. Block groups are determined by residents in the area and in this instance there is minimal residence (creating a larger block group) that makes the area appear as if there is minimal employment.

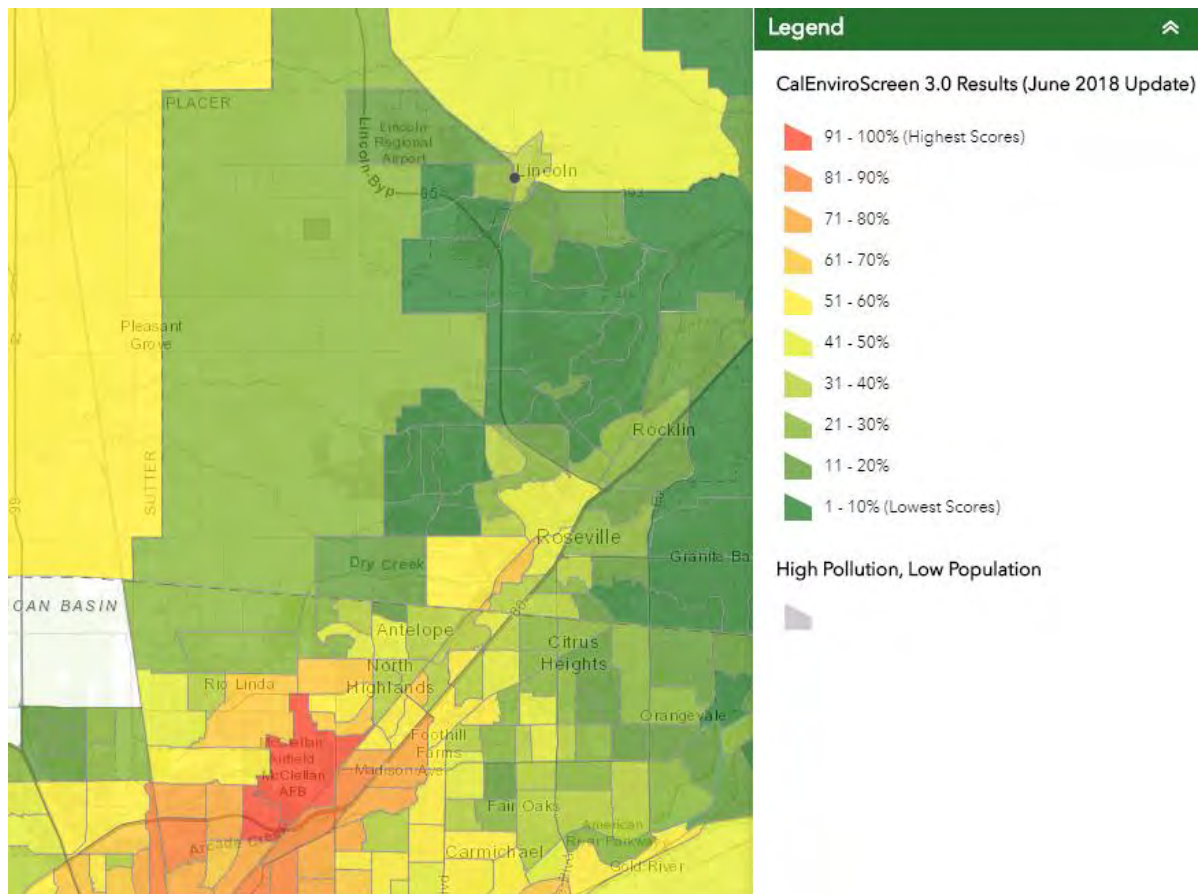
Map 4 Job Density



2.2.3 CALENVIROSCREEN 3.0

CalEnviroScreen 3.0 is a comprehensive tool that provides a score on the health of communities and allows for the identification of Disadvantaged Communities. The tool combines multiple pollution (e.g. traffic, diesel particulates), population characteristics (e.g. cardiovascular disease, asthma), environmental (e.g. polluted sites), and socioeconomic (e.g. poverty, unemployment) datasets to generate a score by census block group. Map 5 shows the CalEnviroScreen 3.0 scores for block groups in the project area. The majority of Placer County is in the lower half of the scoring (with the exception of the two block groups nearest Union Pacific rail yards in Roseville). There are disadvantaged communities in the southern part of the project area near the light rail stations. The introduction of an express service on I-80 could potentially benefit those communities through reduced pollution by reducing vehicle miles traveled along I-80 and increased access to jobs.

Map 5 CalEnviroScreen 3.0



2.3 TRANSIT SERVICE

The following provides a brief summary of Sacramento and Placer County transit service, For a more in-depth analysis, please see A-1.

2.3.1 PLACER COUNTY OPERATORS

There are two operators in Placer County that operate fixed-route transit in the service area, Placer County Transit (PCT) and Roseville Transit. Placer County Transit provides fixed-route, express, and dial-a-ride service that cover areas as far east as Alta and as far west as Downtown Sacramento.

PCT has three fixed-routes and commuter service in the project area. Table 2 provides details on the routes span and frequency for these services

Table 2 Placer County Routes

Route	Description	Weekday Span	Weekday Frequency	Saturday Span	Saturday Frequency
10	Auburn to Light Rail	5:00a – 9:00p	60 minutes	8:00a-7:00p	60 minutes
20	Lincoln-Rocklin-Sierra College	6:00a-7:50p	60 minutes	6:00a-6:00p	60 minutes
70	Lincoln Circulator	6:40a-6:35p	60 minutes	8:20a-4:14p	60 minutes
Placer Commuter Express	Auburn/Colfax-Sacramento	5:20a-7:50a and 4:17p-7:07p	4 trips in the AM and 4 Trips in the PM	N/A	N/A

Source: Placer County Schedules

Nearly all of Roseville's Transit Routes are in the project area at some point. To refine the analysis, only the routes that provide service to the Galleria and the hospitals are shown in Table 3. The table below lists the route, description, and span of service.

Table 3 Roseville Transit Routes

Route	Weekday Span	Weekday Frequency	Saturday Span	Saturday Frequency
A	6:00a – 9:53p	30 minutes/60 minutes evening	8:00a-5:00p	60 minutes
B	6:10a-9:43p	30 minutes/60 minutes evening	8:00a-4:50p	60 minutes
E	7:53a-6:3p	60 minutes	N/A	N/A
G	6:53-5:30	60 minutes	N/A	N/A
L	6:25a-6:15p	60 minutes	8:25a-5:02p	60 minutes
S	7:35a-5:25p	Limited Trips	N/A	N/A

Source: Placer County Transit Short Range Transit Plan

2.3.2 SACRAMENTO REGIONAL TRANSIT

Sacramento Regional Transit provides light rail and bus service to the Watt/I-80 and Roseville Road LR Stations. The following is a brief description of the service and destinations served:

- The Blue Line LR operates primarily with 15-minute frequency on weekdays and serves the Watt/I-80 and Roseville Road LR Stations. The Blue Line provides service between Watt/I-80 LR Station and Consumes River College. The route serves Downtown Sacramento where there are multiple connections to other SacRT and regional services.
- Route 1 provides 15-minute service between Watt/I-80 Station and Citrus Heights with service to American River College.
- Routes 15 provides 30-minute service between Watt/I-80 and Arden/Del Paso Blue Line Station via Grand and Rio Linda Blvd Rd.
- Route 26 provides 30-minute service between the University/65th Street Gold Line Station and Antelope, with a stop at the Watt/I-80 Blue Line Station in between.
- Route 84 provides 30-minute service between Antelope and the Watt/Manlove Gold Line Station and serves the Watt/I-80 Blue Line Station in between.
- Route 93 provides 30-minute service between Watt/I-80 LR Station and Louis & Orlando Transit Center in Roseville.
- Route 193 provides peak period service between Watt/I-80 LR Station and Louis & Orlando Transit Center in Roseville.

3 OPERATOR STATISTICS AND COSTS

3.1 OPERATOR SELECTION

Both Roseville Transit and PCT were interested in operating the service and through discussions it was decided that Roseville Transit would operate the service. These discussions also led to the determination that the service would be operated with battery electric buses. Please see **Error! Reference source not found.** for a comparison of the two operators and the viability of battery electric buses operating the service.

3.2 ALIGNMENT AND STOPS

The final alignment is shown in

Map 6. The alignment was chosen through the analysis of the existing conditions and multiple iterations that were then narrowed down and further refined by PCTPA and the transit operators. The final alignment is designed to provide streamlined service that connects with multiple transit services at the Galleria Transit Center and the Watt/I-80 LR station and provides service to Sutter Health and Kaiser Permanente in Roseville. The final alignment uses the following turn-by-turn directions:

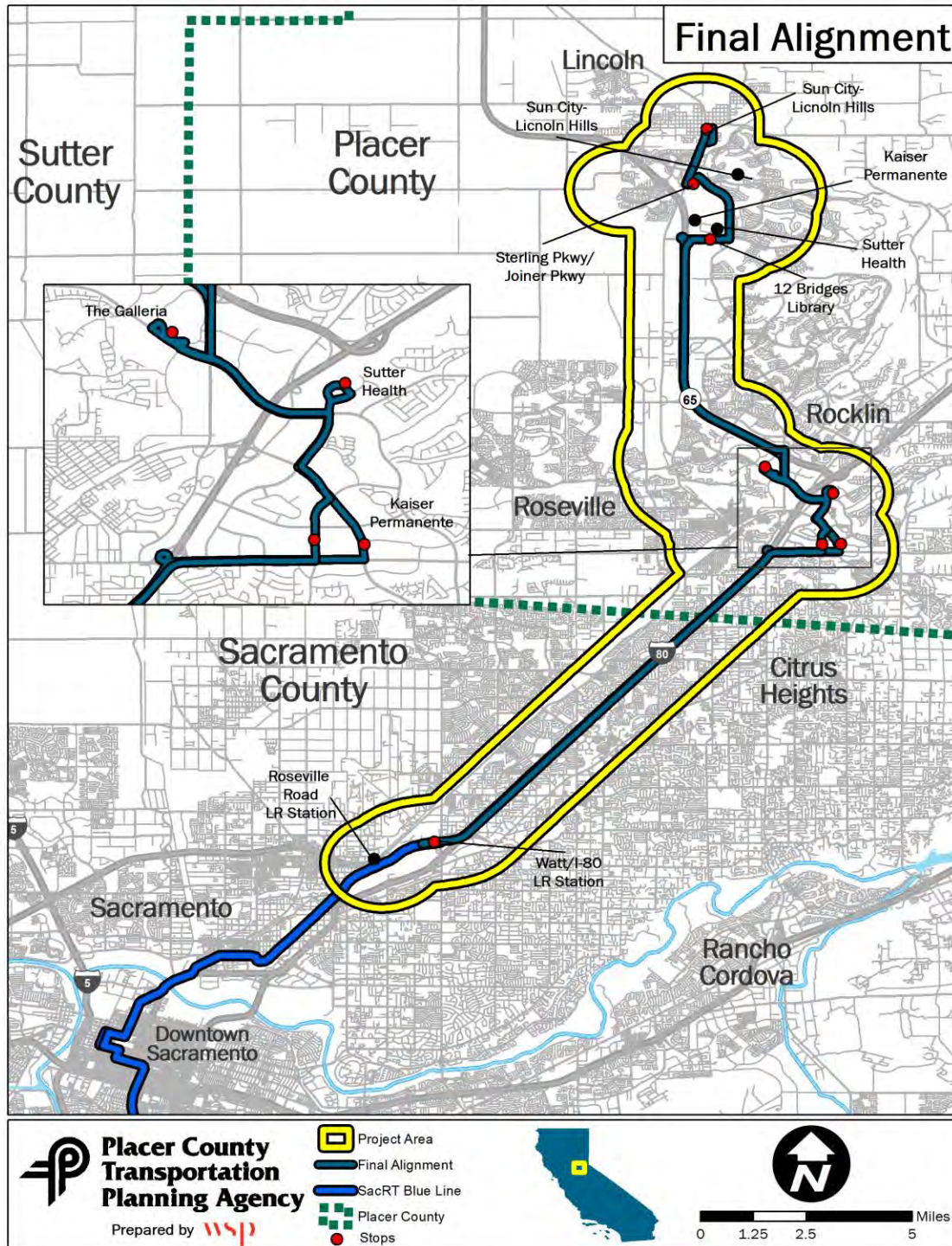
From Lincoln

- Continue on 3rd Street
- Right on E St
- Use first exit at the traffic circle on Gateway Dr
- Left on Lincoln Blvd
- Left on Sterling Pkwy
- Right on E Joiner Pkwy
- Right on Twelve Bridges Dr
- Merge on to Hwy-65 South
- Exit Galleria Blvd South
- Right on Roseville Pkwy
- Right on West Dr
- Right on Galleria Ct
- Right on Reserve Dr
- Left on Roseville Pkwy
- Left N. Sunrise Ave
- Right on Medical Plaza Dr
- Left on Medical Plaza
- Continue on N. Sunrise Ave
- Left on Eureka Rd
- Right on Douglas Dr
- Merge on to I-80 W
- Use the Watt/I-80 offramp to serve the Watt/I-80 LR station

From SacRT's Watt/I-80 LR Station

- Merge on to I-80 E
- Exit Douglas Dr heading East
- Left on Rocky Ride Dr
- Left on to Eureka Rd
- Right on N. Sunrise Ave
- Right on Medical Plaza Dr
- Left on Medical Plaza
- Continue on N. Sunrise Dr
- Right on Roseville Pkwy
- Right on West Dr
- Right on Galleria Ct
- Right on Reserve Dr
- Left on Roseville Pkwy
- Left on Galleria Blvd
- Left on Hwy-65 North
- Right on Twelve Bridges Dr
- Left on E Joiner Pkwy
- Left on Sterling Pkwy
- Right on Lincoln Blvd
- Right on 3rd Street

Map 6 Final Alignment



For a more detailed look at the initial alignments, please see A-2.

The route serves stops in Lincoln, Roseville, and Sacramento County. The final ten stop locations for both directions of the route are listed in the table below and are also shown in

Map 6. There are six stops with existing service present, seven of the stops are ADA compliant, and six of the stops have existing benches and shelters.

Table 4 Stop Information

Direction	Stop Location	Jurisdiction	Existing Service at Stop	ADA Compliant	Bench and Shelter Present
Terminal	3 rd St at E St	Lincoln	Yes	Yes	Yes
South	Sterling Pkwy at Sterling Pkwy	Lincoln	Yes	Yes	Yes
North	Sterling Pkwy at Sterling Pkwy	Lincoln	No	No	No
South	Twelve Bridges Dr at Colonnade Dr	Lincoln	No	No	No
North	Twelve Bridges Dr at Colonnade Dr	Lincoln	No	No	No
Both	Galleria Transit Center	Roseville	Yes	Yes	Yes
Both	Sutter Roseville Medical Center	Roseville	Yes	Yes	Yes
South	Eureka at Douglas	Roseville	Yes	Yes	Yes
North	Rocky Ridge at Kaiser Permanente	Roseville	No	Yes	No
Terminal	Watt/I-80 LR Station	Sacramento County	Yes	Yes	Yes

The current recommended stops include two stops on-street along Twelve Bridges Drive even though there is a bi-directional stop at the library, the stops are on street to increase the speed of the service. It is still recommended that the route continue on-street and not deviate to use the existing stops because of the limited available time to charge the battery electric buses; however, this could be further refined when the service is implemented with actual runtimes and the assurance that the vehicle will be able to replenish the battery at the Galleria.

3.3 SCHEDULE

The following tables (Table 5 and Table 6) show the preliminary schedules for the north and southbound service. There is a built in seven minutes where the vehicle is not moving at the Galleria in each direction. This was done so that the battery electric buses are able to charge and meet the total length and duration of the service. The route would operate every half hour. This would allow for customers using the Blue Line to arrive at any of the Roseville Hospitals before 7:00 a.m. and allow anyone that is traveling from Roseville/Lincoln to Sacramento to arrive in Downtown Sacramento before 7:00 a.m. The schedule is also designed to arrive at the Galleria Transit Center on the hour and at the half to connect with the multiple services that pulse out of there.

The first northbound trip would miss the first Blue Line trip to Watt/I-80, this is caused by the needed mid-trip layover at the Galleria for charging. The schedule is consistent throughout the day and built so that it would remain on time during peak traffic so there is the possibility that the vehicle would be able to hold at the light rail station for the train and still complete the trip on time. This should be further analyzed if and when the battery electric buses are acquired. If the service is not operated with electric vehicles, it is also recommended that the service would no longer have the mid-trip layover at the Galleria.

Table 5 Southbound Schedule

Southbound to Watt/I-80 LR Station						
Lincoln	Twelve Bridges	Galleria Arrive	Galleria Depart	Sutter	Kaiser	Watt/I-80
4:55:00 AM	5:06:00 AM	5:18:00 AM	5:25:00 AM	5:32:00 AM	5:38:00 AM	5:53:00 AM
5:25:00 AM	5:36:00 AM	5:48:00 AM	5:55:00 AM	6:02:00 AM	6:08:00 AM	6:23:00 AM
5:55:00 AM	6:06:00 AM	6:18:00 AM	6:25:00 AM	6:32:00 AM	6:38:00 AM	6:53:00 AM
6:25:00 AM	6:36:00 AM	6:48:00 AM	6:55:00 AM	7:02:00 AM	7:08:00 AM	7:23:00 AM
6:55:00 AM	7:06:00 AM	7:18:00 AM	7:25:00 AM	7:32:00 AM	7:38:00 AM	7:53:00 AM
7:25:00 AM	7:36:00 AM	7:48:00 AM	7:55:00 AM	8:02:00 AM	8:08:00 AM	8:23:00 AM
7:55:00 AM	8:06:00 AM	8:18:00 AM	8:25:00 AM	8:32:00 AM	8:38:00 AM	8:53:00 AM
8:25:00 AM	8:36:00 AM	8:48:00 AM	8:55:00 AM	9:02:00 AM	9:08:00 AM	9:23:00 AM
8:55:00 AM	9:06:00 AM	9:18:00 AM	9:25:00 AM	9:32:00 AM	9:38:00 AM	9:53:00 AM
9:25:00 AM	9:36:00 AM	9:48:00 AM	9:55:00 AM	10:02:00 AM	10:08:00 AM	10:23:00 AM
9:55:00 AM	10:06:00 AM	10:18:00 AM	10:25:00 AM	10:32:00 AM	10:38:00 AM	10:53:00 AM
10:25:00 AM	10:36:00 AM	10:48:00 AM	10:55:00 AM	11:02:00 AM	11:08:00 AM	11:23:00 AM
10:55:00 AM	11:06:00 AM	11:18:00 AM	11:25:00 AM	11:32:00 AM	11:38:00 AM	11:53:00 AM
11:25:00 AM	11:36:00 AM	11:48:00 AM	11:55:00 AM	12:02:00 PM	12:08:00 PM	12:23:00 PM
11:55:00 AM	12:06:00 PM	12:18:00 PM	12:25:00 PM	12:32:00 PM	12:38:00 PM	12:53:00 PM
12:25:00 PM	12:36:00 PM	12:48:00 PM	12:55:00 PM	1:02:00 PM	1:08:00 PM	1:23:00 PM
12:55:00 PM	1:06:00 PM	1:18:00 PM	1:25:00 PM	1:32:00 PM	1:38:00 PM	1:53:00 PM
1:25:00 PM	1:36:00 PM	1:48:00 PM	1:55:00 PM	2:02:00 PM	2:08:00 PM	2:23:00 PM
1:55:00 PM	2:06:00 PM	2:18:00 PM	2:25:00 PM	2:32:00 PM	2:38:00 PM	2:53:00 PM
2:25:00 PM	2:36:00 PM	2:48:00 PM	2:55:00 PM	3:02:00 PM	3:08:00 PM	3:23:00 PM
2:55:00 PM	3:06:00 PM	3:18:00 PM	3:25:00 PM	3:32:00 PM	3:38:00 PM	3:53:00 PM
3:25:00 PM	3:36:00 PM	3:48:00 PM	3:55:00 PM	4:02:00 PM	4:08:00 PM	4:23:00 PM
3:55:00 PM	4:06:00 PM	4:18:00 PM	4:25:00 PM	4:32:00 PM	4:38:00 PM	4:53:00 PM
4:25:00 PM	4:36:00 PM	4:48:00 PM	4:55:00 PM	5:02:00 PM	5:08:00 PM	5:23:00 PM
4:55:00 PM	5:06:00 PM	5:18:00 PM	5:25:00 PM	5:32:00 PM	5:38:00 PM	5:53:00 PM
5:25:00 PM	5:36:00 PM	5:48:00 PM	5:55:00 PM	6:02:00 PM	6:08:00 PM	6:23:00 PM
5:55:00 PM	6:06:00 PM	6:18:00 PM	6:25:00 PM	6:32:00 PM	6:38:00 PM	6:53:00 PM
6:25:00 PM	6:36:00 PM	6:48:00 PM	6:55:00 PM	7:02:00 PM	7:08:00 PM	7:23:00 PM

Table 6 Northbound Schedule

Northbound to Lincoln						
Watt/I-80	Kaiser	Sutter	Galleria Arrive	Galleria Depart	Twelve Bridges	Lincoln
5:54:00 AM	6:09:00 AM	6:15:00 AM	6:22:00 AM	6:29:00 AM	6:41:00 AM	6:52:00 AM
6:24:00 AM	6:39:00 AM	6:45:00 AM	6:52:00 AM	6:59:00 AM	7:11:00 AM	7:22:00 AM
6:54:00 AM	7:09:00 AM	7:15:00 AM	7:22:00 AM	7:29:00 AM	7:41:00 AM	7:52:00 AM
7:24:00 AM	7:39:00 AM	7:45:00 AM	7:52:00 AM	7:59:00 AM	8:11:00 AM	8:22:00 AM
7:54:00 AM	8:09:00 AM	8:15:00 AM	8:22:00 AM	8:29:00 AM	8:41:00 AM	8:52:00 AM
8:24:00 AM	8:39:00 AM	8:45:00 AM	8:52:00 AM	8:59:00 AM	9:11:00 AM	9:22:00 AM
8:54:00 AM	9:09:00 AM	9:15:00 AM	9:22:00 AM	9:29:00 AM	9:41:00 AM	9:52:00 AM
9:24:00 AM	9:39:00 AM	9:45:00 AM	9:52:00 AM	9:59:00 AM	10:11:00 AM	10:22:00 AM
9:54:00 AM	10:09:00 AM	10:15:00 AM	10:22:00 AM	10:29:00 AM	10:41:00 AM	10:52:00 AM
10:24:00 AM	10:39:00 AM	10:45:00 AM	10:52:00 AM	10:59:00 AM	11:11:00 AM	11:22:00 AM
10:54:00 AM	11:09:00 AM	11:15:00 AM	11:22:00 AM	11:29:00 AM	11:41:00 AM	11:52:00 AM
11:24:00 AM	11:39:00 AM	11:45:00 AM	11:52:00 AM	11:59:00 AM	12:11:00 PM	12:22:00 PM
11:54:00 AM	12:09:00 PM	12:15:00 PM	12:22:00 PM	12:29:00 PM	12:41:00 PM	12:52:00 PM
12:24:00 PM	12:39:00 PM	12:45:00 PM	12:52:00 PM	12:59:00 PM	1:11:00 PM	1:22:00 PM
12:54:00 PM	1:09:00 PM	1:15:00 PM	1:22:00 PM	1:29:00 PM	1:41:00 PM	1:52:00 PM
1:24:00 PM	1:39:00 PM	1:45:00 PM	1:52:00 PM	1:59:00 PM	2:11:00 PM	2:22:00 PM
1:54:00 PM	2:09:00 PM	2:15:00 PM	2:22:00 PM	2:29:00 PM	2:41:00 PM	2:52:00 PM
2:24:00 PM	2:39:00 PM	2:45:00 PM	2:52:00 PM	2:59:00 PM	3:11:00 PM	3:22:00 PM
2:54:00 PM	3:09:00 PM	3:15:00 PM	3:22:00 PM	3:29:00 PM	3:41:00 PM	3:52:00 PM
3:24:00 PM	3:39:00 PM	3:45:00 PM	3:52:00 PM	3:59:00 PM	4:11:00 PM	4:22:00 PM
3:54:00 PM	4:09:00 PM	4:15:00 PM	4:22:00 PM	4:29:00 PM	4:41:00 PM	4:52:00 PM
4:24:00 PM	4:39:00 PM	4:45:00 PM	4:52:00 PM	4:59:00 PM	5:11:00 PM	5:22:00 PM
4:54:00 PM	5:09:00 PM	5:15:00 PM	5:22:00 PM	5:29:00 PM	5:41:00 PM	5:52:00 PM
5:24:00 PM	5:39:00 PM	5:45:00 PM	5:52:00 PM	5:59:00 PM	6:11:00 PM	6:22:00 PM
5:54:00 PM	6:09:00 PM	6:15:00 PM	6:22:00 PM	6:29:00 PM	6:41:00 PM	6:52:00 PM
6:24:00 PM	6:39:00 PM	6:45:00 PM	6:52:00 PM	6:59:00 PM	7:11:00 PM	7:22:00 PM
6:54:00 PM	7:09:00 PM	7:15:00 PM	7:22:00 PM	7:29:00 PM	7:41:00 PM	7:52:00 PM
7:24:00 PM	7:39:00 PM	7:45:00 PM	7:52:00 PM	7:59:00 PM	8:11:00 PM	8:22:00 PM

3.4 OPERATING STATISTICS AND COST

Based off the schedule, the service would require four vehicles. The information in Table 7 details the operating statistics by vehicle for the service and includes the daily and revenue hours and miles. Assuming the service is operated by Roseville Transit, the operating cost is based on their fully burdened cost per hour of \$121.00. Table 8 details the operating cost per day and estimated cost per year (255 weekdays) with the total yearly cost estimated to be \$1,860,556.50. The daily total miles include the pull in and out distance from the garage based off the distance from the start and of service and the Roseville Maintenance yard. The service would require four vehicles for operations and it is assumed that an additional vehicle would be purchased to provide a spare vehicle for a total of five vehicles, but only four in operation at one time.

Table 7 Roseville Transit Operating Information

Frequency	Vehicle Block	Pull-Out Time	First Trip Start Time	Last Trip End Time	Pull-in Time	Daily Revenue Hours	Daily Total Hours	Daily Revenue Miles	Daily Total Miles
30/30	1	4:25	4:55	18:52	19:22	14.0	14.95	352.8	386.4
	2	4:55	5:25	19:22	19:52	14.0	14.95	352.8	386.4
	3	5:25	5:55	19:52	20:22	14.0	14.95	352.8	386.4
	4	5:55	6:25	20:52	21:22	14.5	15.45	352.8	386.4
	Total	-	-	-	-	56.3	60.3	1411.2	1545.6

Table 8 Roseville Transit Operating Cost

Frequency (Peak/ Off-Peak)	Daily Total Hours	Cost per hour	Daily Total Cost	Total Operating Cost (Assuming weekdays 255 days)
30/30	60.3	\$121.00	\$7,296.30	\$1,860,556.50

3.5 CAPITAL COST

The majority of the capital cost of the service is from the cost of the battery electric vehicles and the on-route chargers that will be placed at the Galleria; a rough order of magnitude is about \$1,000,000 for each vehicle and charger, for a total of \$7,000,000. In addition to the vehicles and chargers, there are transit and stop enhancements that would also need to be implemented.

Based off the stops, there would need to be three stops constructed and four benches and shelters added. It should be noted that two of the stops (on Twelve Bridges Drive) may not need to be built because the vehicle can use the existing stop at the library. These stops should not be implemented only if it is determined that the vehicle is able to replenish enough energy at the Galleria.

The only intersections included for queue jumps are on Roseville Parkway where the right-turn lane could be used. In addition to Roseville Parkway, there is the possibility of exploring the use of the left turn lane on Douglas Blvd as a queue jump to bypass traffic; however, this is only needed in the westbound lane because the ramp meter from I-80 West on-ramp causes vehicles to back up in the right lanes on Douglas Blvd. This presents some operational concerns because the vehicle would need to position itself in the far-left lane to use the queue jump but then merge over to the right lane or middle lane to be in the correct position to merge on to the freeway if the signal is green.

Table 9 Recommended Capital Infrastructure

Capital Investment	Unit Cost	Units	Total Cost
Vehicles	\$1,000,000	5	\$5,000,000
On Route Charging Station (Galleria)	1,000,000	2	\$2,000,000
Queue Jump Striping	\$2,400	4	\$9,600
Queue Jump Signals (intersections)	\$18,000	4	\$72,000
TSP Emitters (Vehicles)	\$1,200	5	\$6,000
Coordinated Signals	Free	N/A	N/A
Design and Build ADA Compliant Bus Stops	\$15,000	3	\$45,000
Bench and Shelter	\$15,000	4	\$60,000
Total			\$7,192,600

The vehicles, chargers, and any needed ADA improvements at stops are the only capital cost that need to be implemented for a total cost of \$7,045,000. The implementation of queue jumps and transit signal priority (TSP) are optional. For queue jumps and TSP implementation, there needs to be close coordination with the City of Roseville's Traffic Department because the existing roadway and lane width standards would make it difficult to implement and the transit signal priority would need to work in cohesion with the existing coordinated signals on the major roadways.

For the full of analysis of transit priorities, see A-3.

APPENDIX

A MEMOS

A-1 EXISTING CONDITIONS REPORT

Lincoln Express Bus Service

Existing Conditions Report

Contents

Introduction	4
Project Area	5
Demographic Data.....	6
Population Density	6
Minority Density.....	13
Ratio of Income to Poverty Level	14
Employment Analysis	17
CalEnviroScreen 3.0 And Disadvantaged Communities	19
Existing Transit Service Analysis.....	20
Amtrak	21
Greyhound	22
SacRT	22
Transit Operators in Placer County	23
Placer County Transit.....	26
Roseville Transit	28
Potential Service Alignments	30
Preliminary Alignments	30

MAP 1 PROJECT AREA	5
MAP 2 POPULATION DENSITY	7
MAP 3 YOUTH POPULATION DENSITY	8
MAP 4 COLLEGE AGED DENSITY	9
MAP 5 MILLENNIAL DENSITY	10
MAP 6 MIDDLE-AGED DENSITY	11
MAP 7 ELDERLY DENSITY	12
MAP 8 MINORITY DENSITY	13
MAP 9 RATIO OF INCOME TO POVERTY 100%	14
MAP 10 RATIO OF INCOME TO POVERTY 150%	15
MAP 11 RATIO OF INCOME TO POVERTY 200%	16
MAP 12 JOB DENSITY	18
MAP 13 CALENVIROSCREEN 3.0	19
MAP 14 TRANSIT CENTERS	21
MAP 15 SACRT ROUTES IN THE PROJECT AREA	23
MAP 16 EXPRESS ROUTES IN THE PROJECT AREA	24
MAP 17 TRANSIT ROUTES IN THE PROJECT AREA	25
MAP 18 POTENTIAL ALIGNMENT	31
TABLE 1 PCT FIXED-ROUTE RIDERSHIP BY AGE	6
TABLE 2 ROSEVILLE TRANSIT FIXED ROUTE RIDERSHIP BY AGE	6
TABLE 3 LARGEST EMPLOYERS IN PLACER COUNTY	17
TABLE 4 TRANSIT OPERATORS AND SERVICE OPERATED	20
TABLE 5 PLACER COUNTY ROUTES	26
TABLE 6 2016-2017 PCT PERFORMANCE	26
TABLE 7 ROSEVILLE TRANSIT ROUTES	28
TABLE 8 RT2016-2017 ROUTE PERFORMANCE	28

Introduction

Placer County Transportation Planning Agency (PCTPA) serves as the Regional Transportation Planning Agency (RTPA) for Placer County (excluding the Lake Tahoe Basin) and is governed by representatives from the six incorporated cities, two members of the Placer County Board of Supervisors, and one citizen representative. In addition to serving as the RTPA, PCTPA has multiple roles within Placer County and the surrounding region that are listed below.

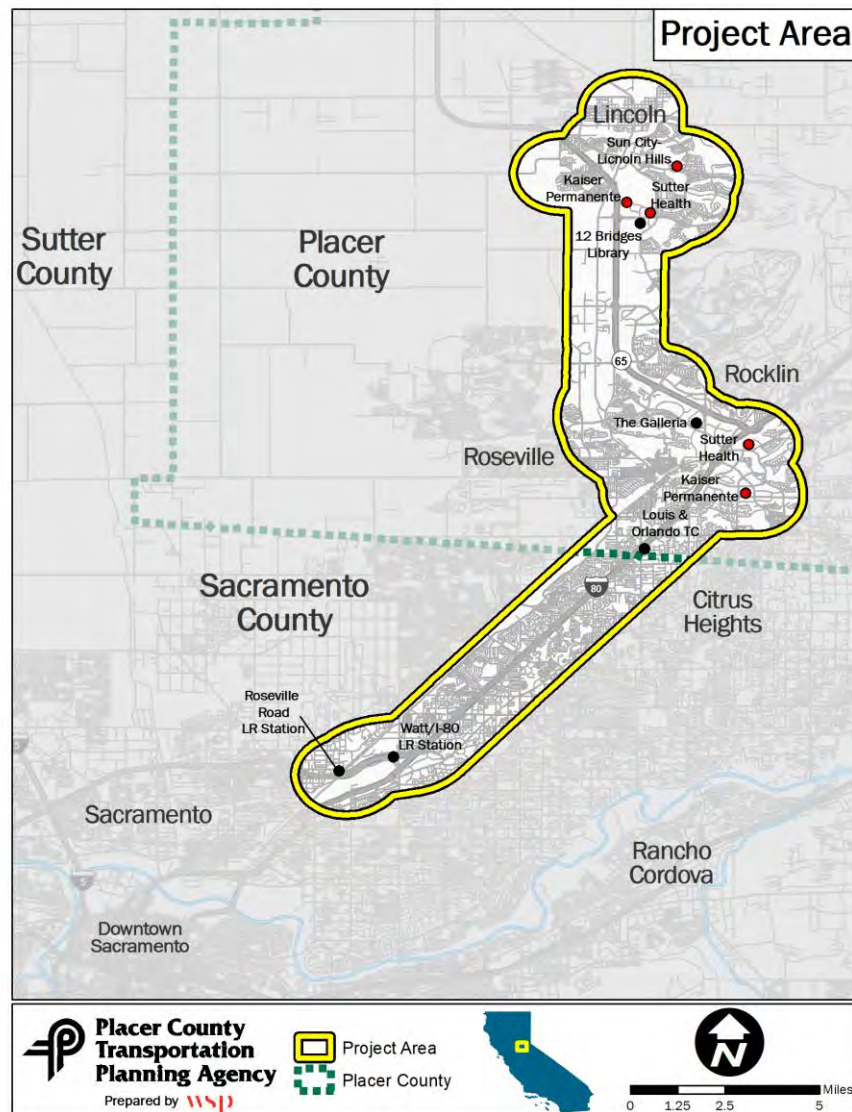
- Designated as the Congestion Management Agency (CMA)
- Statutorily designated member of the Capitol Corridor Joint Powers Authority (CCJPA)
- Administrator of the South Placer Regional Transportation Authority (SPRTA) and Western Placer County Consolidated Transportation Services agency (WPCTSA)
- Represents Placer County jurisdictions in federal planning and programming issues
- Eligible to administer federal projects and funds
- Administers and allocates the Local Transportation Fund (LTF) and State Transit Assistance (STA) funds

PCTPA tasked WSP with developing a service implementation plan (SIP) for an express route between Lincoln, CA and the Blue Line light rail service operated by Sacramento Regional Transit (SacRT). The goals of the project are to alleviate congestion along Interstate 80 (I-80) and California State Route 65 (Highway 65), enhance service to the medical facilities in Roseville, and increase overall transit accessibility between Lincoln, Roseville, and Downtown Sacramento via SacRT's light rail service.

Project Area

The project area is shown in Map 1, and extends south from the City of Lincoln along Highway 65 to the City of Roseville, and west along I-80 from the City of Roseville to the Roseville Road Station in North Highlands (Sacramento County). Major activity centers and/or key destinations include the two light rail stations (Roseville Road and Watt/I-80 Stations), Kaiser Hospital, Sutter Hospital, and the Galleria Mall (also a Transit Center). The project area shown in Map 1 was created by extending a mile from the main corridors and key destinations along those corridors. Both Kaiser and Sutter facilities are shown in Map 1 along with other key destinations like the Sun-City Lincoln Hills senior community and potential transit centers that can be served.

Map 1 Project Area



Demographic Data

Demographic data provides insights on the potential success of the project. The maps in the following sections show population densities for total population, certain ages, minorities, and poverty, each of which have a higher propensity to use transit services. The two tables below (Tables 1 – 2) provide survey results for age from the PCT and RT Short Range Transit Plans.

Table 1 PCT Fixed-Route Ridership by Age

	6-12	13-18	19-59	60+
Placer County Transit	1%	12%	72%	15%

Source: Placer County Transit 2019 Short Range Transit Plan

Table 2 Roseville Transit Fixed Route Ridership by Age

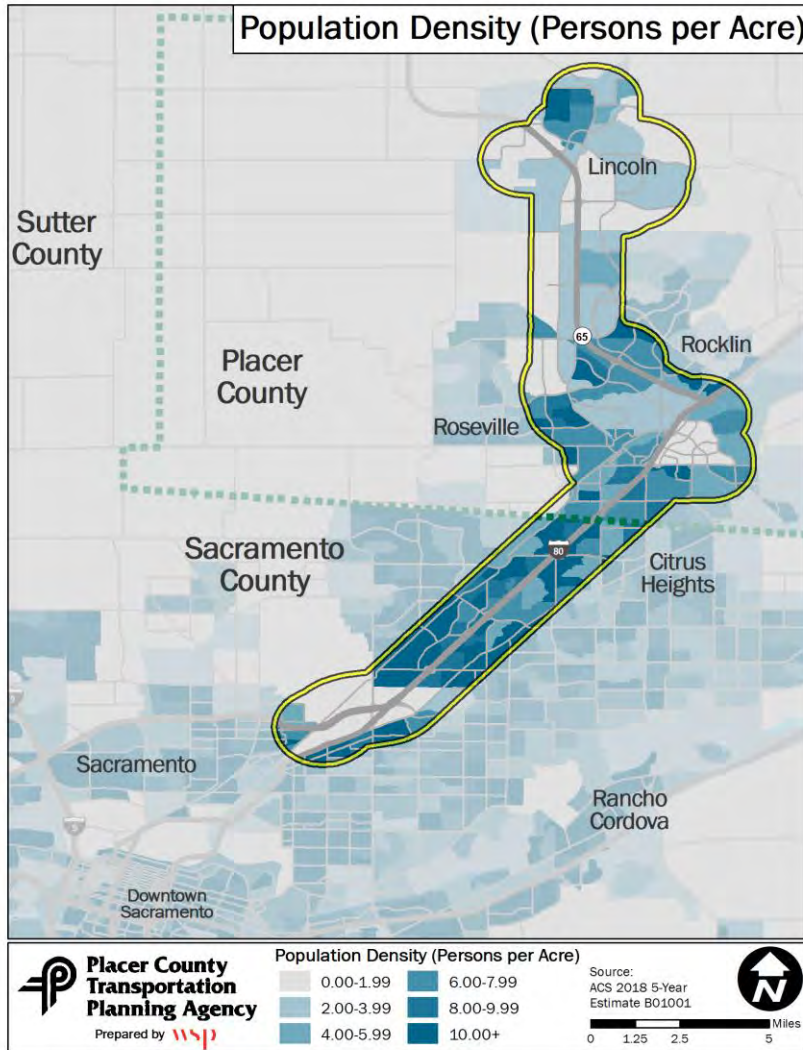
	16 or Under	17-25	26-44	45-59	60+
Roseville Transit	2%	12%	34%	35%	18%

Source: Roseville Transit 2019 Short Range Transit Plan

Population Density

The population density information in Map 2 indicates that the areas in Citrus Heights and Sacramento have the highest density, both of which are located in Sacramento County. Within Placer County, the downtown areas of Lincoln and Roseville and the areas northeast of Highway 65 in Rocklin have the highest densities. One of the main areas in the project area (the business park south of Highway 65 and east I-80) has almost no population density, however the area has one of the most dense job densities in the region.

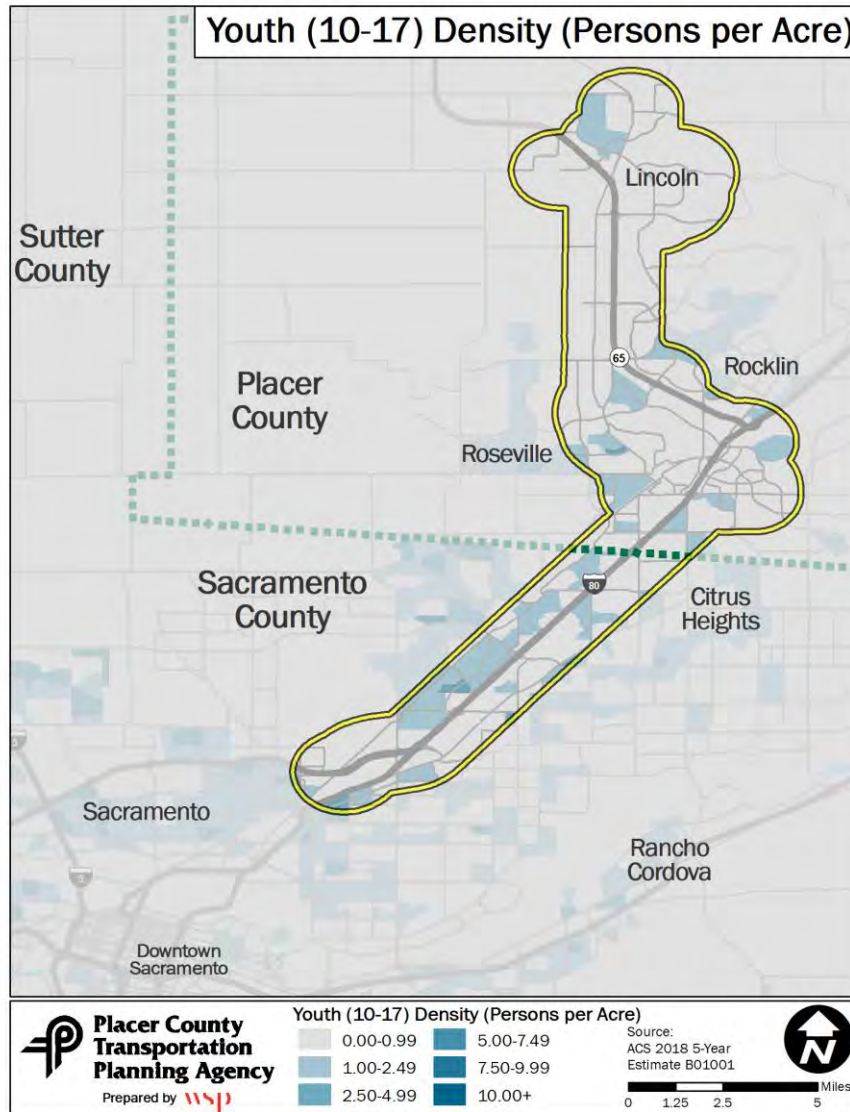
Map 2 Population Density



The following maps break down the population by age. This is beneficial because certain ages are more or less likely to use transit. Maps 3 – 7 show the population density of youths (10 – 17), College Aged (18 – 24), Millennials (25 – 34), Middle-Aged (35 – 64), and Elderly (65+).

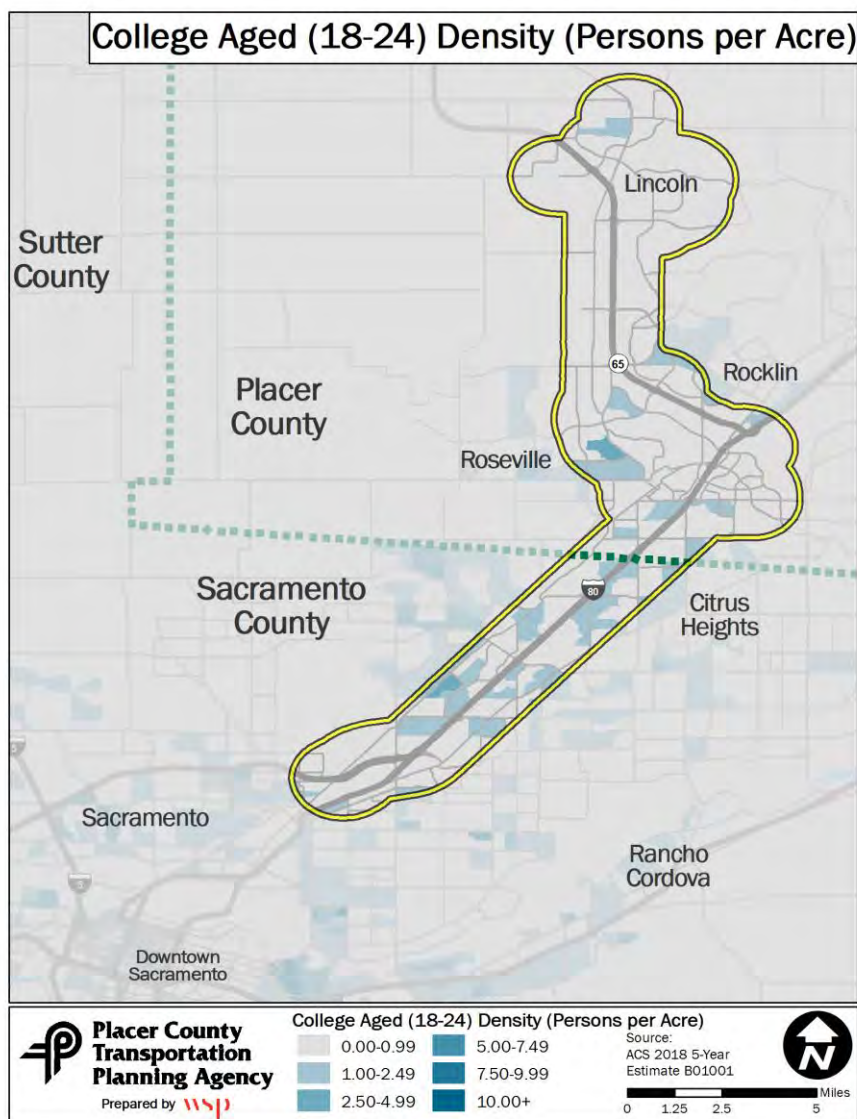
Youth populations are less likely to have a car and because of that are more likely to depend on transit to travel to and from school and other recreational activities. Map 3 indicates that youth density is very small in the project area and is highest in Sacramento with small pockets in Lincoln, Roseville, and Rocklin.

Map 3 Youth Population Density



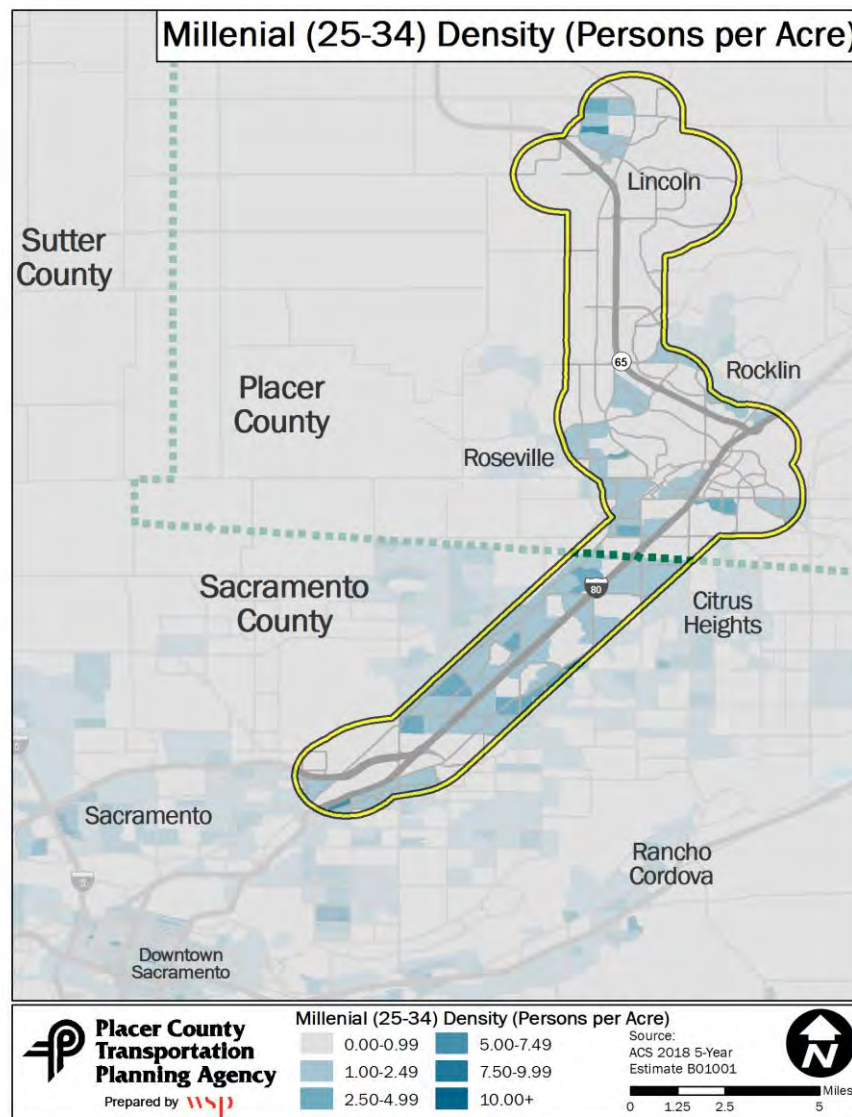
College Aged persons are more likely to use transit partly because they are less likely to own a car compared to someone in the workforce (although this is more true in areas where there is a large university). Like the youth densities, Map 4 indicates that there are pockets of college densities in the project area, with Sacramento County having the most presence of college aged persons, but overall the population is very small. This is consistent with the lack of colleges near the project area with one community college (Sierra college) in Rocklin and two smaller universities (William Jessup and Brandman Universities) that are more commute based.

Map 4 College Aged Density



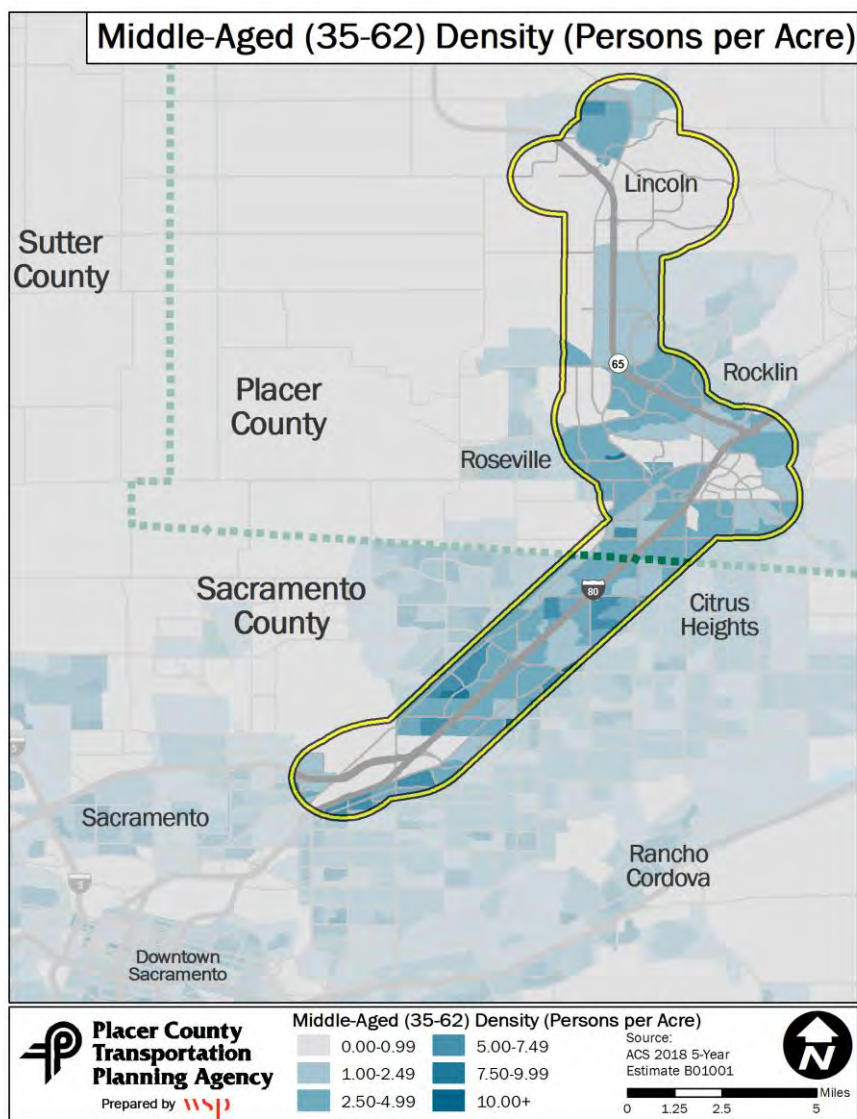
Millennials or those that are 25 – 34 years in age are also more likely to use transit. They are starting their careers and most likely do not have a family which allows them to have more flexibility in their schedules to take transit. Additionally, they may also have less of a disposable income, which makes private vehicle use less desirable. The millennial population is sparse in the study area; downtown Lincoln and Roseville, Sacramento, and Citrus Heights have pockets of millennials, with the most dense areas in Lincoln, Sacramento, and Citrus Heights.

Map 5 Millennial Density



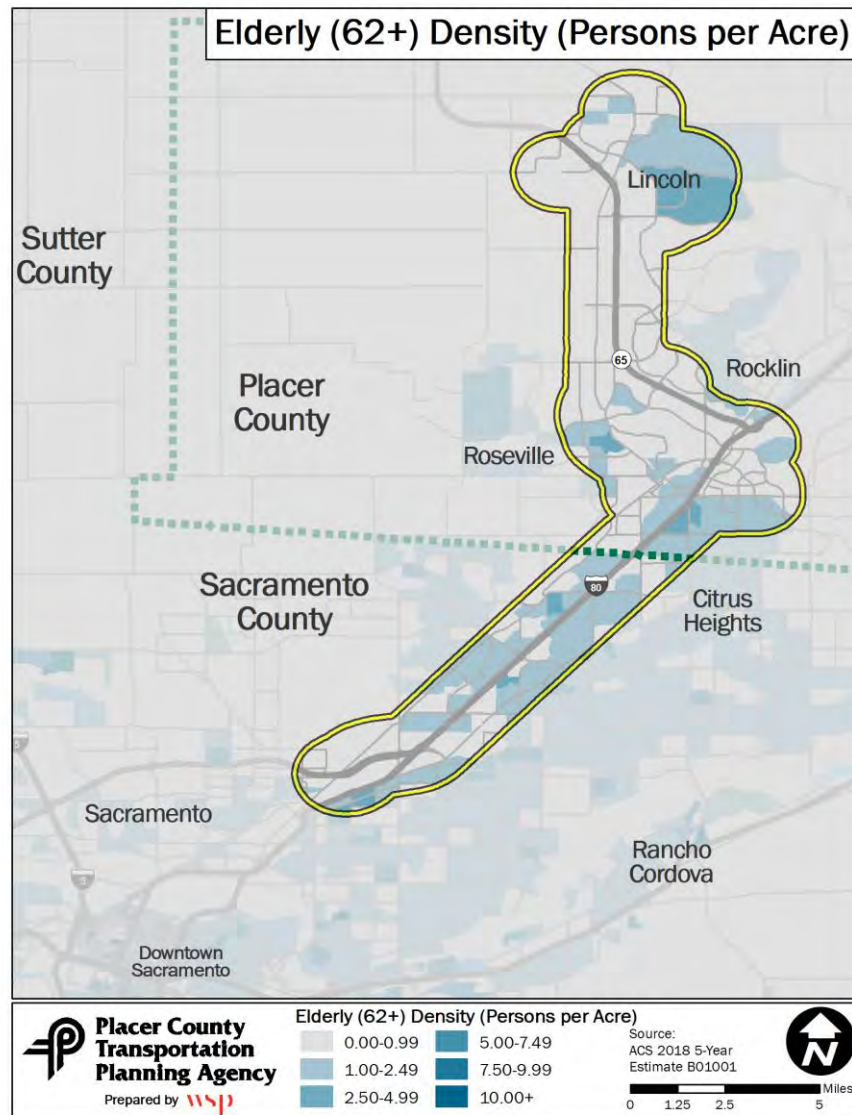
Middle-Aged populations are the least likely to use transit due to increased constraints of time with busier schedules and the presence of families that reduce schedule flexibility and the limited capacity of transit (e.g. carrying sports equipment, groceries for an entire family, needing to pick kids at different schools or activities, etc.). This age range has a larger earnings potential and would be able to better afford vehicles and their maintenance costs. Map 6 shows the middle-aged population, and as shown, represents the cohort with the greatest density.

Map 6 Middle-Aged Density



The elderly population are more likely to use transit partly due a reduced ability to drive or a fixed income that makes transit a cost-effective form of transportation. They also have a less constrained schedule which allows them to wait for a service to arrive. Map 7 indicates that the highest density of elderly is in the eastern part of Lincoln, but there is also consistent density throughout the project area between Roseville and Sacramento. The increased density in Lincoln is due to the presence of the Sun City-Lincoln Hills senior community. Interestingly, areas where millennials are most dense are areas where elderly are least dense and vice-versa.

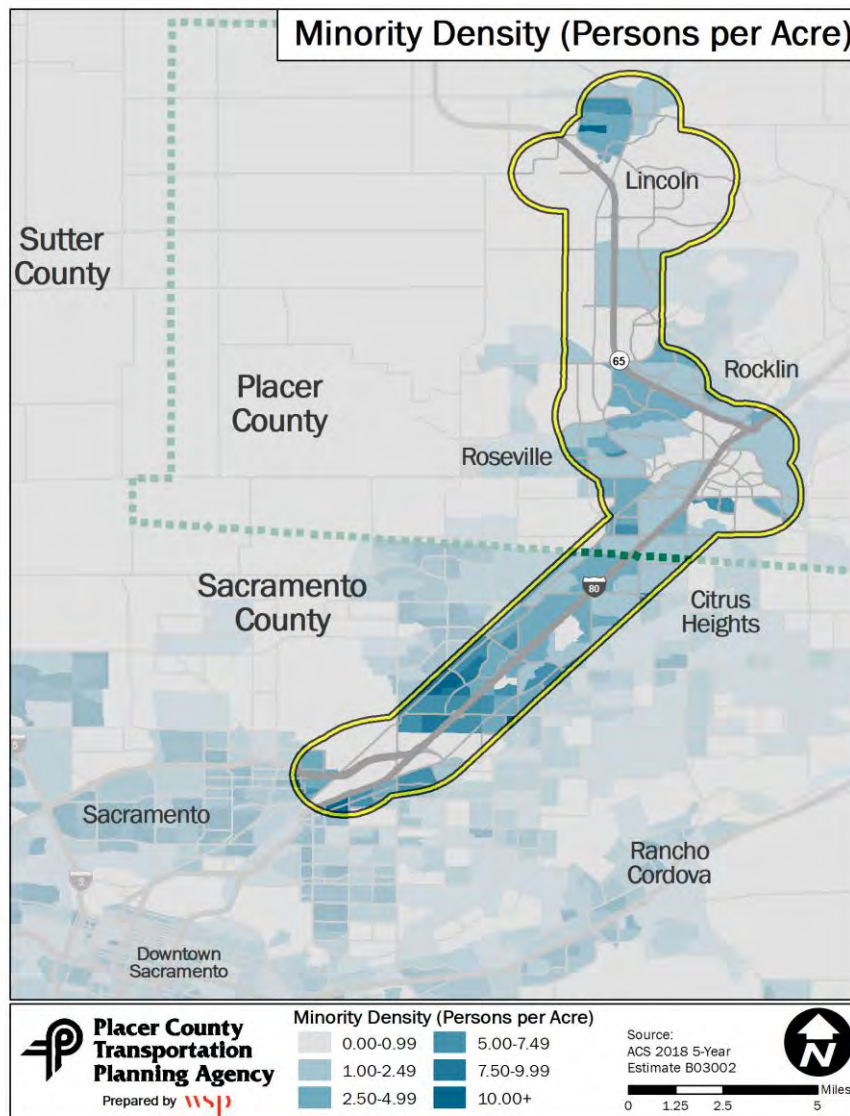
Map 7 Elderly Density



Minority Density

Minority populations normally make up a large share of transit ridership and they are a demographic with needs that must be taken into consideration for equity of new services and changes to existing service. Map 8 shows the density of the non-white and Hispanic/Latino origin populations. The highest density of minorities is in Sacramento and in Downtown Lincoln. Roseville also has consistent densities of minorities in the project area.

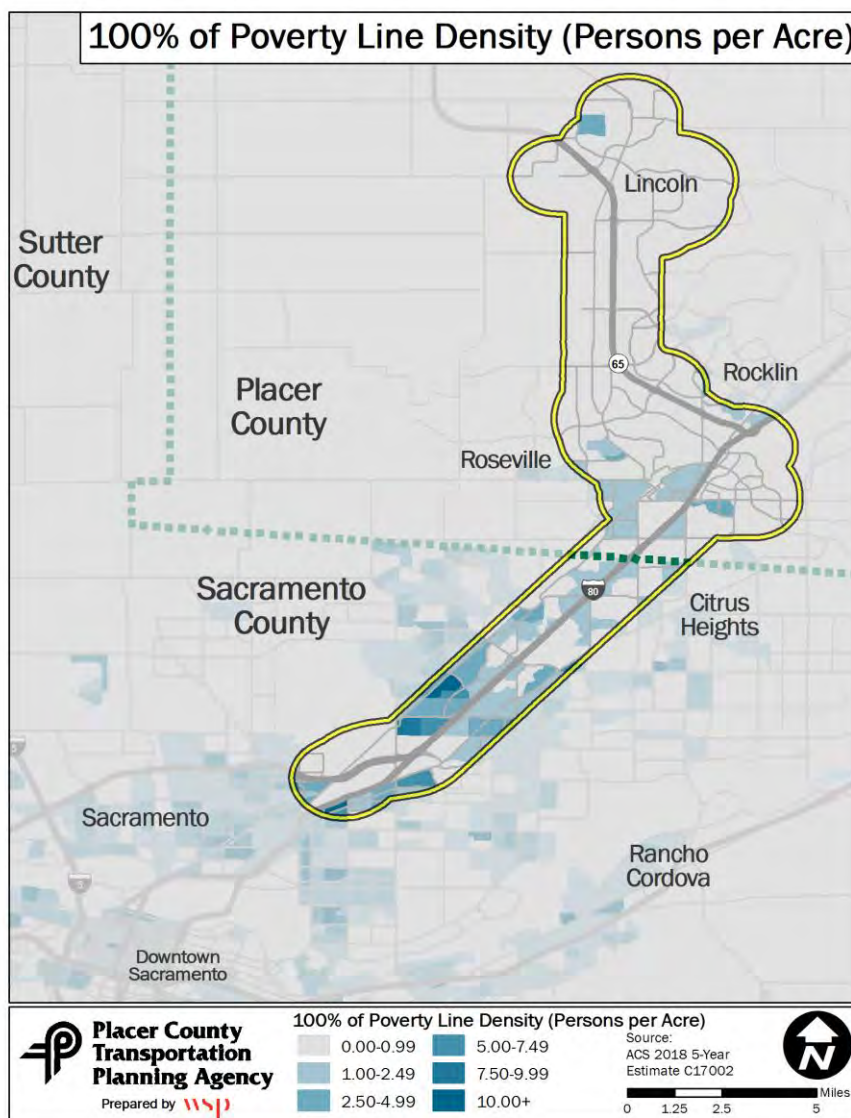
Map 8 Minority Density



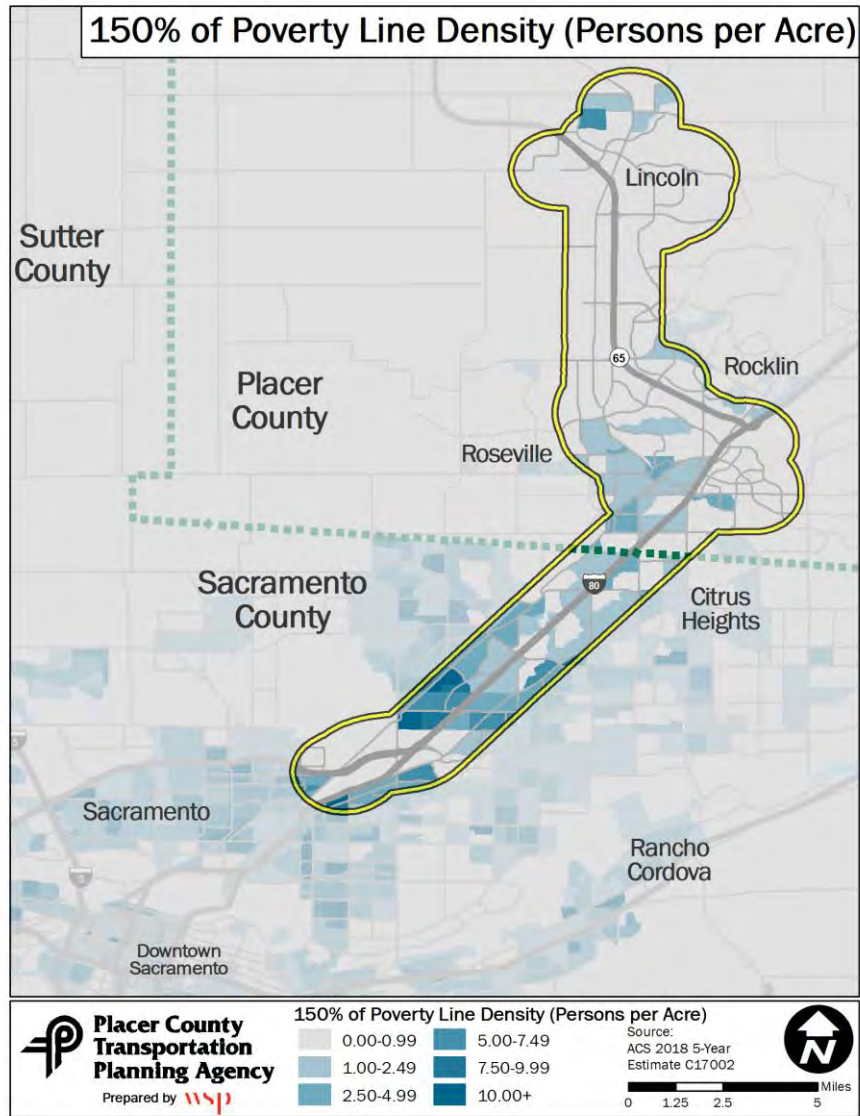
Ratio of Income to Poverty Level

The ratio of income to poverty provides an indicator of financial stability, and is the bare minimum that an individual would need to pay for essentials. The poverty line is nearly uniform across the U.S. (with a few exceptions), however cost of living within a specific area may put an individual that is not below the federal poverty unable to pay for essentials. To better show the potential regional changes to poverty, 100 percent, 150 percent and 200 percent of income to the poverty level ratios were mapped and analyzed. Maps 9 – 11 show the ratio of income to poverty at 100, 150, and 200 percent. The highest densities are located in Sacramento, but there are also high density areas in Lincoln and Roseville. The densities greatly increase when looking at the 200 percent compared to the 100 percent of income to poverty with a large concentration at or near the border of Sacramento and Placer County near Citrus Heights and south Roseville.

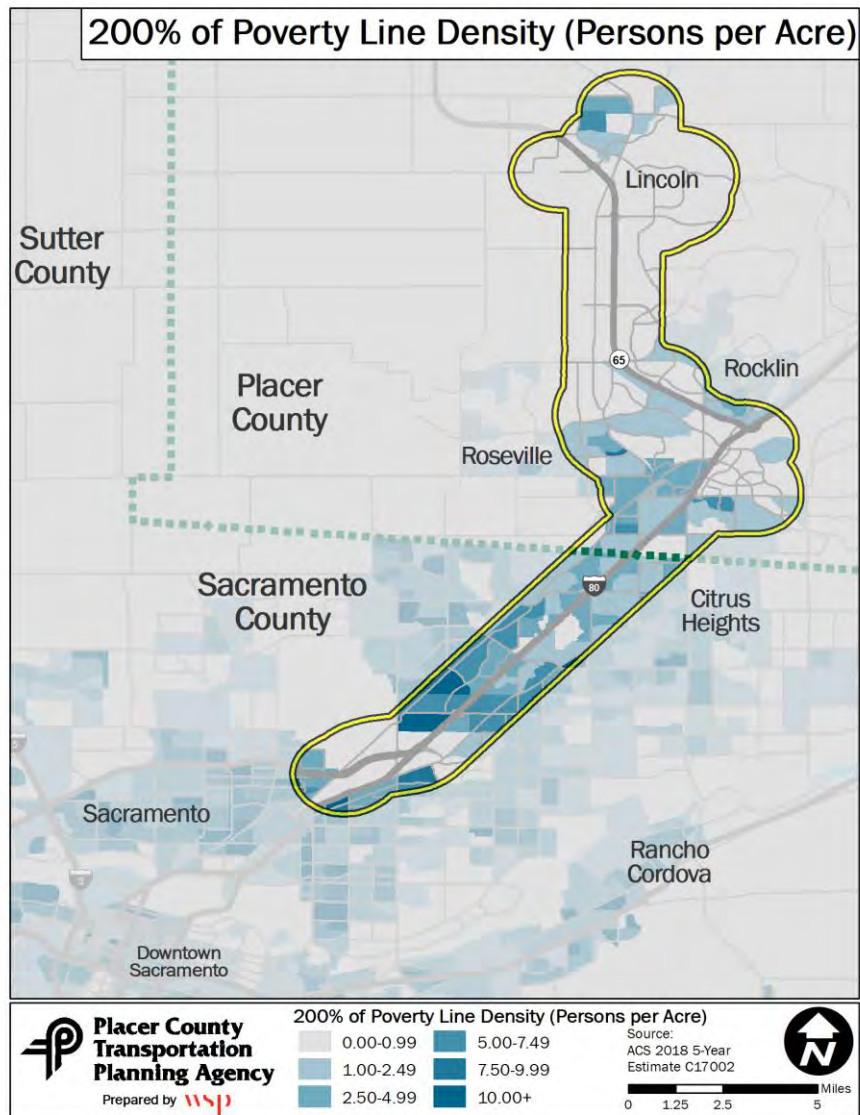
Map 9 Ratio of Income to Poverty 100%



Map 10 Ratio of Income to Poverty 150%



Map 11 Ratio of Income to Poverty 200%



Employment Analysis

The top employers in Placer County are listed in Table 3. Sutter Health and Kaiser Permanente are the two largest employers in Placer County (collectively employee 45 percent of the employees on the table below), and 9 of the top 10 employers are in or near the project area. For transit to be successful there usually needs to be a good mix of population and job density. Map 12 indicates the jobs per acre and the location of the largest employers in the project area. Both Kaiser Permanente and Sutter Health have facilities located in the eastern part of Roseville and near Twelve Bridges Library in Lincoln. The greatest concentration of jobs is near the hospitals in Roseville.

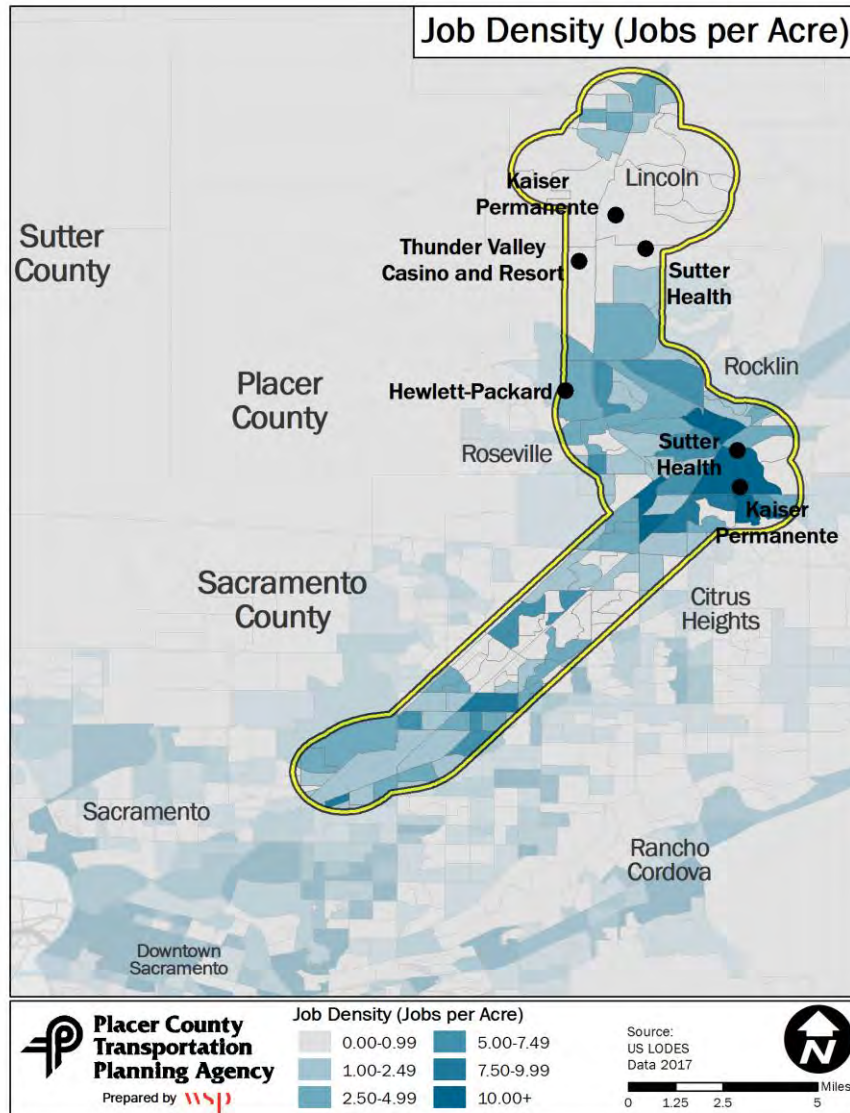
Table 3 Largest Employers in Placer County

Company/Organization	Employees	In Project Area
Sutter Health	5,634	X
Kaiser Permanente	5,609	X
County of Placer	2,898	X
Thunder Valley Casino Resort	2,500	X
Hewlett-Packard Co.	2,000	X
PRIDE Industries	1,646	X
Safeway Inc.	1,189	X
Squaw Valley Alpine Meadows	1,161	
City of Roseville	1,146	X
Union Pacific	1,091	X

Source: 2018 Placer County CAFR

There are two things to note with the table and map. The County of Placer, City of Roseville, Safeway, Inc, and Pride Industries are in the project area, but they do not have a central location and their employees are spread throughout the County. The block group where the Thunder Valley Casino is located shows there is almost no job density. There are nearly 3,460 jobs in that area, but the block group is so large (38,000 acres) that the density is 0.1 jobs per acre. Block groups are determined by residents in the area and in this instance there is minimal residence (creating a larger block group) that makes the area appear as if there is minimal employment.

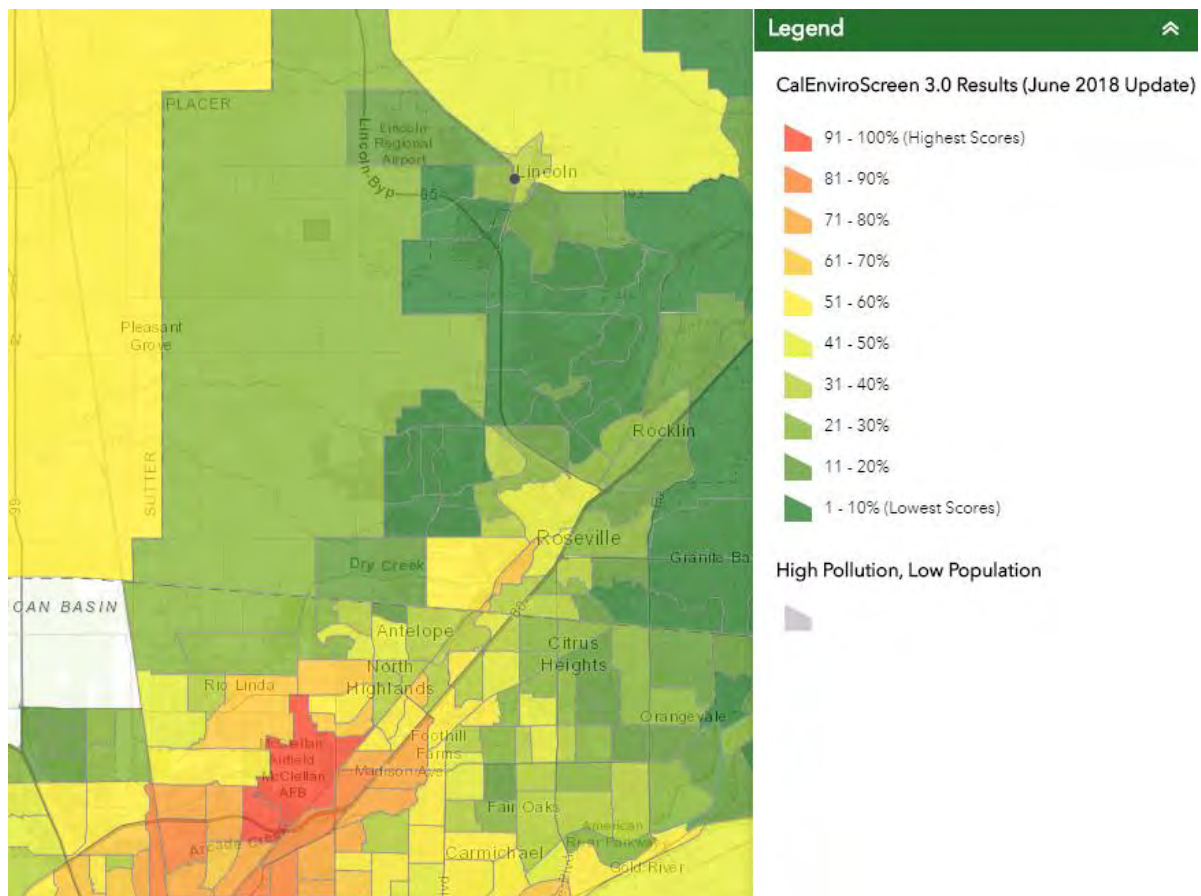
Map 12 Job Density



CalEnviroScreen 3.0 And Disadvantaged Communities

CalEnviroScreen 3.0 is a comprehensive tool that provides a score on the health of communities and allows for the identification of Disadvantaged Communities. The tool combines multiple pollution (e.g. traffic, diesel particulates), population characteristics (e.g. cardiovascular disease, asthma), environmental (e.g. polluted sites), and socioeconomic (e.g. poverty, unemployment) datasets to generate a score by census block group. Map 13 shows the CalEnviroScreen 3.0 scores for block groups in the project area. The majority of Placer County is in the lower half of the scoring (with the exception of the two block groups nearest Union Pacific rail yards in Roseville). There are disadvantaged communities in the southern part of the project area near the light rail stations. The introduction of an express service on I-80 could potentially benefit those communities through reduced pollution and increased access to jobs by reducing vehicle miles traveled along I-80.

Map 13 CalEnviroScreen 3.0



Existing Transit Service Analysis

There are five transit operators in the service area – Placer County Transit (PCT), Roseville Transit (RT), SacRT, Amtrak, and Greyhound – with multiple modes of service that include demand response, fixed-route bus, commuter bus, long-haul bus, light-rail, and heavy rail. Each operator's type of service is shown in the Table 4.

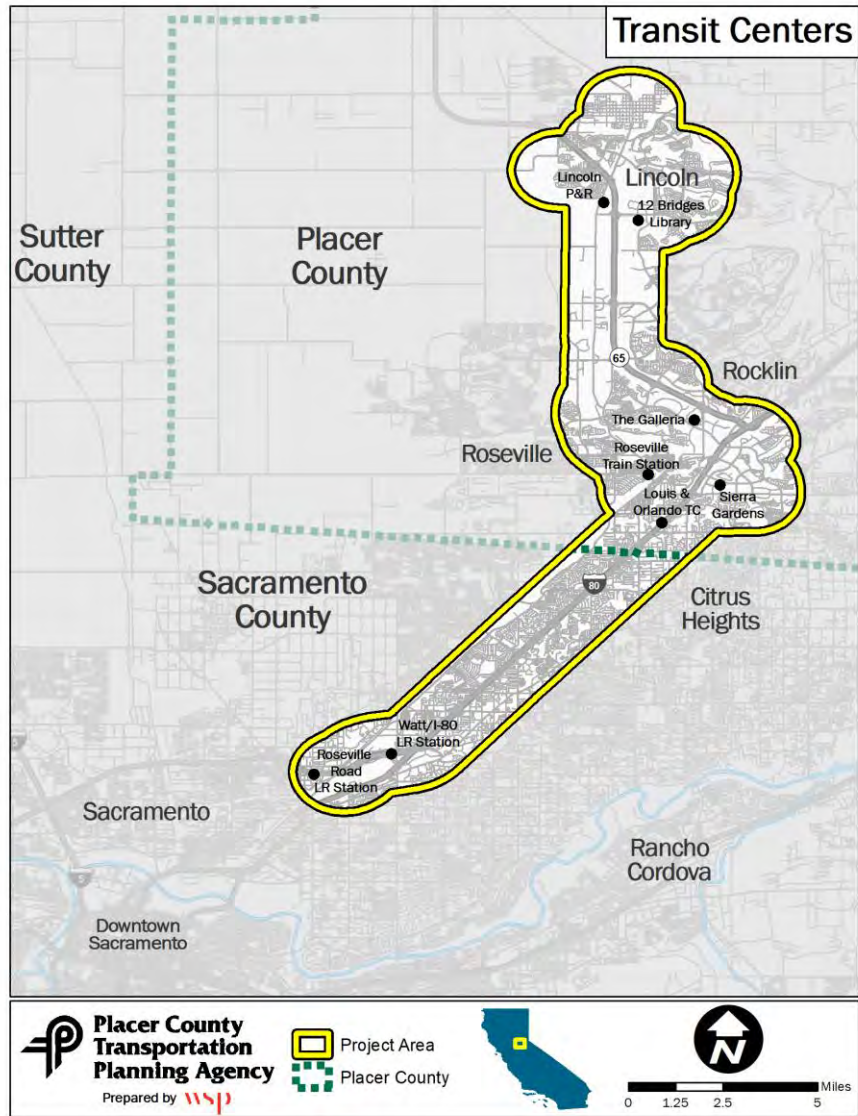
Table 4 Transit Operators and service Operated

Operator	Fixed-Route Bus	Commuter Bus	Long-Haul Bus	Light-Rail	Heavy Rail	Dial-a-Ride
Amtrak			X		X	
Greyhound			X			
Roseville Transit	X	X				X
SacRT	X			X		
Placer County Transit	X	X				X

There are multiple transit centers, transfer points, and train stations in the project area. The following list and details the transit centers:

- Louis & Orlando Transit Center (RT and PCT routes serve the transit center along I-80)
- Sierra Gardens (RT transfer area)
- The Galleria Transit Center (RT and PCT routes connect at the mall in Roseville)
- Twelve Bridges Library (PCT routes connect at the library in Lincoln)
- Roseville Train Station (RT, Amtrak, and greyhound serve the train station)
- Lincoln Park and Ride (not currently served, but as has the potential for transit service and as a vanpool hub)
- Watt/I-80 LR Station (PCT and SacRT's buses and light rail serve the station. There is also a park & ride lot)
- Roseville Rd LR Station (SacRT's light rail serve the station. There is also a park & ride lot)

Map 14 Transit Centers



Amtrak

Amtrak provides limited service via Thruway bus and rail service to the Roseville Train Station (located in Roseville and not the Roseville Road LR Station):

- There is one trip per day by train, on the Capitol Corridor service, which connects Roseville with the San Francisco Bay Area. There is a planned expansion of Capitol Corridor service in the next decade; Phase I increases service to Roseville from one trip to 3 trips daily, and Phase 2 increases service to 10 roundtrips per day.
- Two one-way trips (one inbound, one outbound) are provided by the California Zephyr in Roseville, which operates between the San Francisco Bay Area and Chicago, IL. Service on the

Zephyr service is very limited, and do not provide expanded mobility opportunities for residents of the area.

- Amtrak also provides Thruway bus service that provides six weekday trips from Roseville Station to Sacramento and seven trips from Sacramento to Roseville Station – and beyond to Colfax and Auburn.

Greyhound

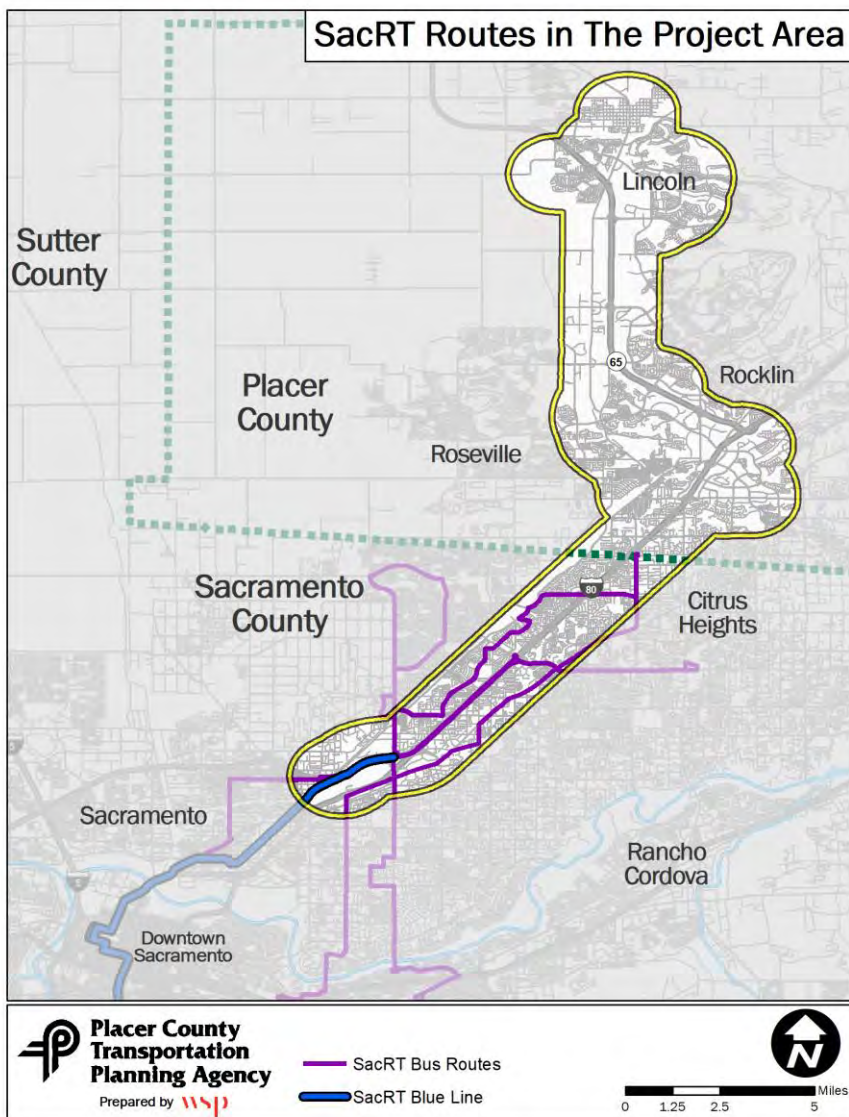
Greyhound provides two round trips per day between San Francisco and Reno with service to the Roseville Train Station.

SacRT

SacRT provides light rail and bus service to the Watt/I-80 and Roseville Road LR Stations, the SacRT service is shown in Map 15. The following is a brief description of the service and destinations served:

- The Blue Line LR operates primarily with 15-minute frequency on weekdays and serves the Watt/I-80 and Roseville Road LR Stations. The Blue Line provides service between Watt/I-80 LR Station and Consumes River College. The route serves Downtown Sacramento where there are multiple connections to other SacRT and regional services.
- Route 1 provides 15-minute service between Watt/I-80 Station and Citrus Heights with service to American River College.
- Routes 15 provides 30-minute service between Watt/I-80 and Arden/Del Paso Blue Line Station via Grand and Rio Linda Blvd Rd.
- Route 26 provides 30-minute service between the University/65th Street Gold Line Station and Antelope, with a stop at the Watt/I-80 Blue Line Station in between.
- Route 84 provides 30-minute service between Antelope and the Watt/Manlove Gold Line Station and serves the Watt/I-80 Blue Line Station in between.
- Route 93 provides 30-minute service between Watt/I-80 LR Station and Louis & Orlando Transit Center in Roseville.
- Route 193 provides peak period service between Watt/I-80 LR Station and Louis & Orlando Transit Center in Roseville.

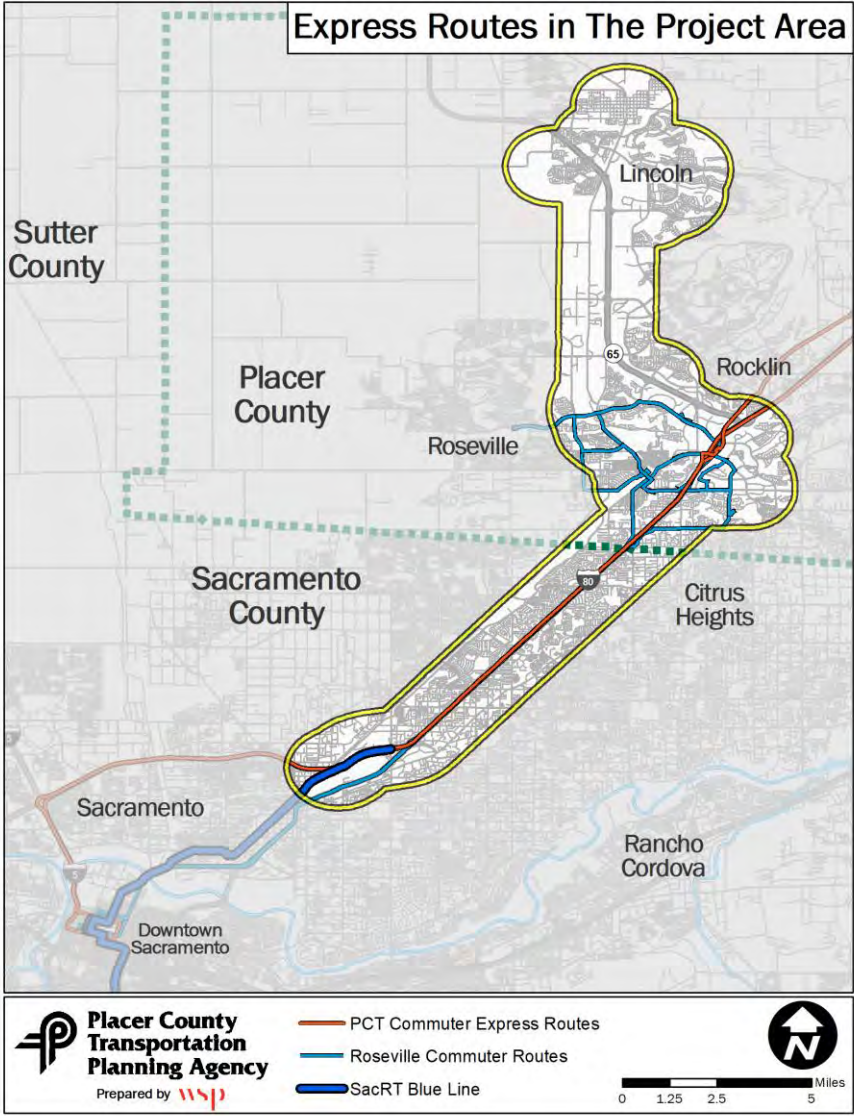
Map 15 SacRT Routes in the Project Area



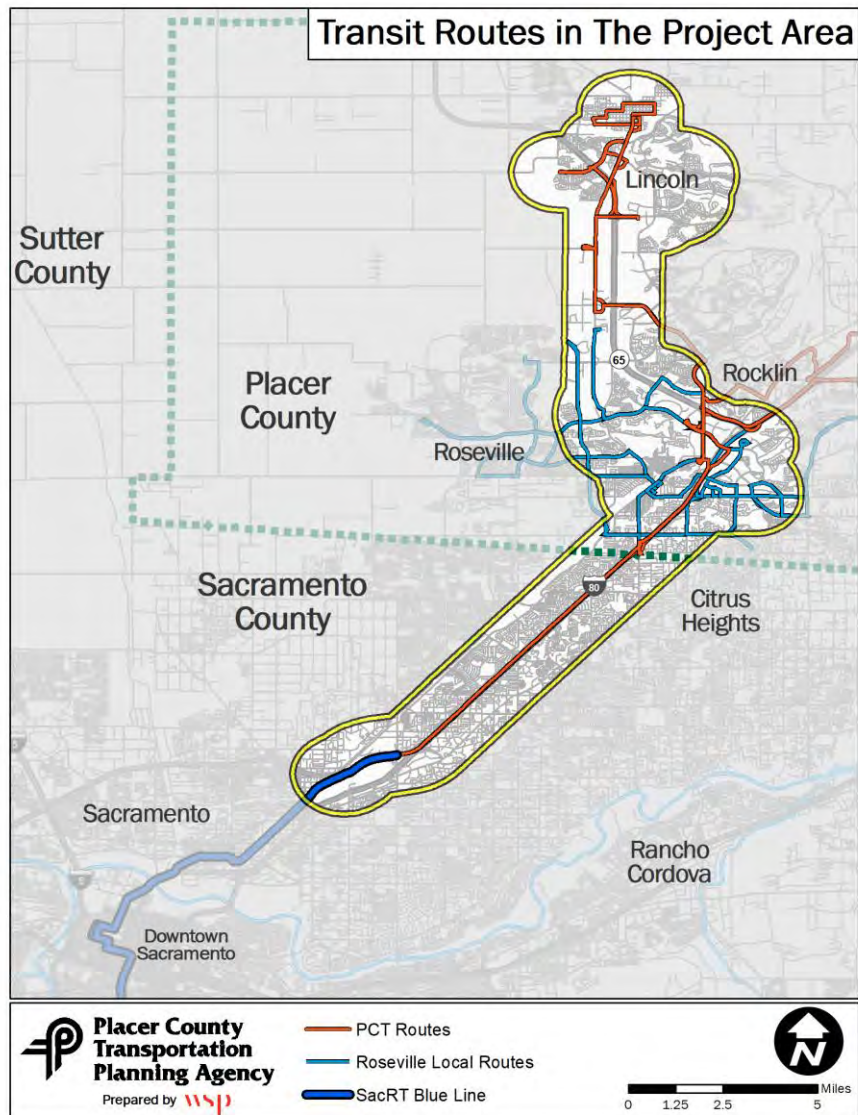
Transit Operators in Placer County

More detail is provided for both PCT and RT because they would be most impact by the implementation of an Express Service between Lincoln and Sacramento, as one of them would be most likely to operate the service. The implementation of a new service also provides the opportunity of restructuring service for both transit agencies in hopes of improving service throughout the county. The following two maps show the PCT and RT services and their interaction with the project area.

Map 16 Express Routes in the Project Area



Map 17 Transit Routes in the Project Area



Placer County Transit

PCT provides fixed-route, express, and dial-a-ride service in Placer County that cover areas as far east as Alta and as far west as Downtown Sacramento.

PCT has three fixed-routes and commuter service in the project area. Table 5 provides detail on the routes span and frequency for these services. PCT provides consistent service for fixed-route with clock-facing headways that leave every hour.

Table 5 Placer County Routes

Route	Description	Weekday Span	Weekday Frequency	Saturday Span	Saturday Frequency
10	Auburn to Light Rail	5:00a – 9:00p	60 minutes	8:00a-7:00p	60 minutes
20	Lincoln-Rocklin-Sierra College	6:00a-7:50p	60 minutes	6:00a-6:00p	60 minutes
70	Lincoln Circulator	6:40a-6:35p	60 minutes	8:20a-4:14p	60 minutes
Placer Commuter Express	Auburn/Colfax-Sacramento	5:20a-7:50a and 4:17p-7:07p	4 trips in the AM and 4 Trips in the PM	N/A	N/A

Source: Placer County Schedules

With the exception of farebox recovery, the routes in the project area perform better than the system average as seen in Table 6. The fixed-route services have an average farebox recovery ratio around 5 percent, but the average for the system is 10.8 percent. A potential reason for performing below the average of the farebox recovery percentage could be a result of the Commuter Express' very high recovery percentage of 56.3 percent. The Commuter Express service has the lowest on time performance (OTP), but this is due the operating procedures that allow the operators to leave non starting timepoints early on return trips from Sacramento.

Table 6 2016-2017 PCT Performance

Route	OTP	Passengers per Vehicle Hour	Passengers per Vehicle Mile	Operating Subsidy per Trip	Farebox Recovery %
10	72.3%	10.50	0.34	\$12.06	5.6%
20	73.9%	8.9	0.50	\$12.61	5.3%
70	71.4%	8.8	0.63	\$12.24	5.5%
Placer Commuter Express	47%	22.3	0.70	\$4.03	56.2%
System	Not Available	6.9	0.34	\$13.74	10.8%

Source: Placer County Transit Short Range Transit Plan

The following lists any recommendations from the 2019 Short Range Transit Plan that are relevant to the project area:

- Short-Term
 - Focus on improving on-time performance
 - Discuss modifications to Roseville's Route S which provides service along Industrial within the city limits but does not extend to areas north of the City limits
 - Modify the Lincoln Circulator to attract new ridership in the northwest of Lincoln and change the Lincoln Hills town Center and East Avenue at 7th Street to on-demand service
- Mid-Term
 - Implement a Placer Commuter Express from Lincoln to Sacramento

Roseville Transit

Nearly all of Roseville's Transit Routes are in the project area at some point. To refine the analysis, only the routes that provide service to the Galleria and the hospitals are shown in Table 7. The table below lists the route, description, and span of service.

Table 7 Roseville Transit Routes

Route	Weekday Span	Weekday Frequency	Saturday Span	Saturday Frequency
A	6:00a – 9:53p	30 minutes/60 minutes evening	8:00a-5:00p	60 minutes
B	6:10a-9:43p	30 minutes/60 minutes evening	8:00a-4:50p	60 minutes
E	7:53a-6:3p	60 minutes	N/A	N/A
G	6:53-5:30	60 minutes	N/A	N/A
L	6:25a-6:15p	60 minutes	8:25a-5:02p	60 minutes
S	7:35a-5:25p	Limited Trips	N/A	N/A

Source: Placer County Transit Short Range Transit Plan

As shown in Table 8, RT's routes have decent OTP with the exception of Routes E, G, and S. The limited operating hours of S which would most likely create a need to interline it with other services or do midday deadheads to improve performance may impact its OTP. Routes E and G serve similar areas and the possibility of interlining and route structure of where the similar routes are going may confuse operators. Routes A and B operate as good or better than the system average for passengers per vehicle hours, operating subsidy per trip, and farebox recovery percentage. Routes A, B, and L operate at or below the system average for passengers per vehicle mile.

Table 8 RT2016-2017 Route Performance

Route	OTP (SRTP)	Passengers per Vehicle Hour	Passengers per Vehicle Mile	Operating Subsidy per Trip	Farebox Recovery %
A	88%	6.8	0.5	\$13.35	13.5%
B	93%	6.7	0.6	\$13.18	13.7%
E	47%	2.9	0.2	\$36.01	5.5%
G	47%	2.9	0.2	\$36.01	5.5%
L	100%	5.3	0.4	\$16.91	11.0%
S	74%	2.2	0.2	\$45.96	4.3%
System	82%	5.9	0.4	\$15.74	11.7%

The following lists any recommendations from the 2019 Short Range Transit Plan that are relevant to the project area:

- Either modify routes C/F/F/E/L to remove unproductive service or eliminate C/G/F/E and replace with a TNC/microtransit service to maintain access to areas
- Provide additional service to the Roseville Train Station
- Expand Commuter Service to additional areas and add service during the midday

Potential Service Alignments

Based on the information, listed above, there are some key takeaways that will help inform the alignment of the service.

Demographics

- The densest population areas are located in Downtown Lincoln, western Roseville, eastern Rocklin, and Citrus Heights and Sacramento.
- Overall, Youth (10-17) and College-Aged (18-24) populations do not have large densities in the project area. Millennials (25-34) have some presence in Downtown Lincoln and Roseville and along the I-80 corridor in Citrus Heights and Sacramento. The middle-age population is prevalent throughout the project area. The elderly have high densities in eastern Lincoln and southeast Roseville.
- Populations with lower-income are concentrated along the I-80 corridor in Sacramento and Citrus Heights, however, Lincoln and Roseville have areas of low-income populations.
- Minority populations are concentrated along the I-80 corridor, Downtown Lincoln, and in Roseville.

Employment

- Many of the large employers in Placer County are located near the I-80 and Highway 65 corridors (Kaiser Permanente, Sutter Health, UP, Hewlett-Packard, and Thunder Valley Casino). There is a large amount of jobs in southeast Roseville near Douglas Blvd and Eureka Rd, partly due to the presence of the hospitals.

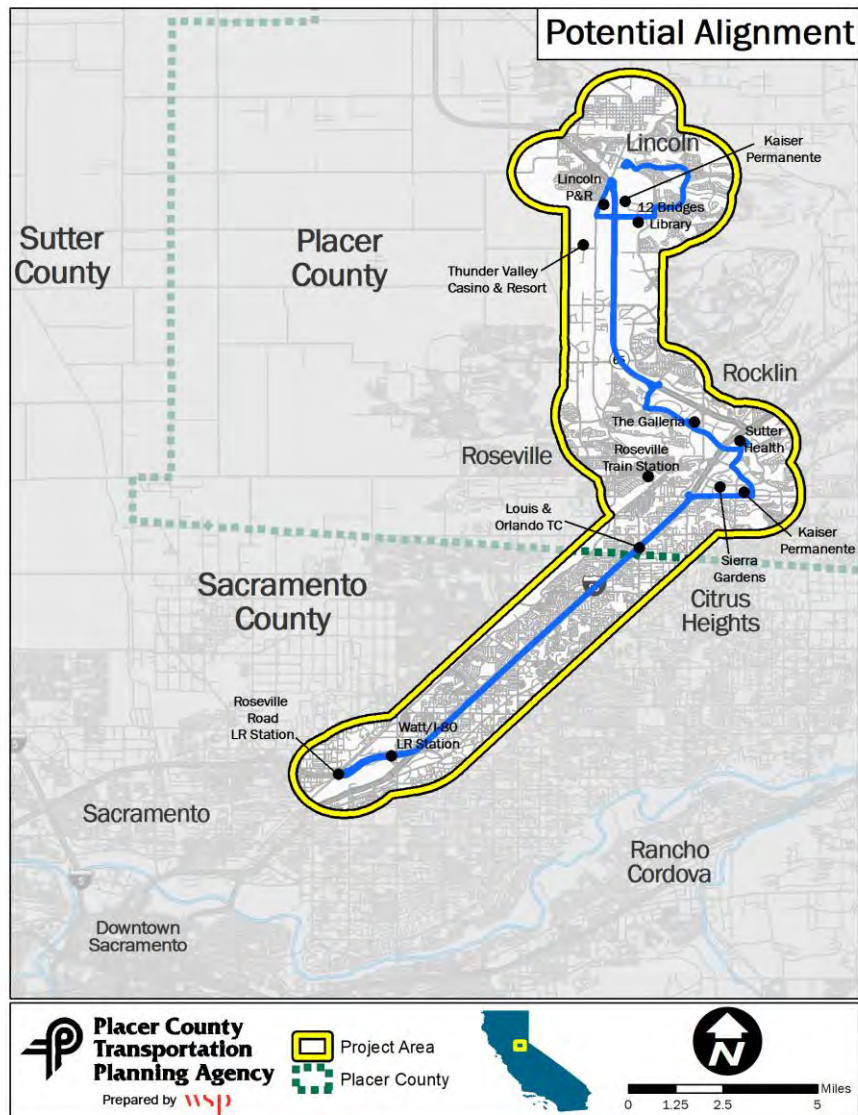
Transit Connections

- The Watt/I-80 LR Station allows for the most connections to the surrounding areas (Downtown Sacramento, Northern Sacramento, Citrus Heights, and Antelope) and SacRT primarily provides 30 minute or better service which allows for easy connections.
- Within Placer County, there are multiple connection points with PCT and RT routes at the Galleria Mall and in Lincoln. The implementation of an express service can potentially benefit both PCT and RT by incorporating recommended changes in the delivery of the service (e.g. changes to the Lincoln Circulator and changes to the E, G, and L near Kaiser Permanente in southeast Roseville) to potentially improve service.
- The proximity of almost all the County's top employers to the project area underscores the importance of not just a route through the I-80 and Highway 65 corridors, but also connections to existing transit services and first/last mile strategies to any service implemented.

Preliminary Alignments

Based off the information listed above and through the report, a preliminary route alignment was developed, as shown in Map 18. This alignment is very preliminary and should be used as a discussion point moving forward, as further analysis related to operating and ridership must be conducted.

Map 18 Potential Alignment



There are many areas that should be considered in developing the final service recommendations, including potential changes to both RT and PCT's service. The following items detail key destinations or areas that should be considered when developing the final service recommendations:

- Access to healthcare for seniors in eastern Lincoln
- The population, minority, and low-income densities in Downtown Lincoln
- Connection to existing services in Placer and Sacramento Counties and complimenting the services to benefit all transit systems.
- Use of the existing Park & Ride or other usable location in Lincoln for commuters traveling from and beyond Lincoln
- Connection to Jobs outside of Sutter Health and Kaiser Permanente

In addition to the items above, the financial sustainability and reliability of the service also needs to be considered when developing the final recommendations. The operating design of the service needs to balance the operating cost, the destinations served to attract customers, and reliability (on-time performance) to create a sustainable service that will enhance transportation for Placer County residents currently and into the future.

APPENDIX

A-2 *POTENTIAL ROUTE ALIGNMENTS*

Lincoln Express Bus Service

Potential Route Alignments

Contents

Introduction	4
Route Alignments and Operating Information	4
Scenario 1.....	6
Route Alignment.....	8
Stop information.....	9
Operating Stats and Estimated Cost	10
Scenario 2.....	13
Route Alignment.....	15
Stop information.....	17
Operating Stats and Estimated Cost	17
Scenario 3.....	21
Route Alignment.....	23
Stop information.....	25
Operating Stats and Estimated Cost	25
Recommendations	29

Map 1 Scenario 1 Route Alignment	7
Map 2 Scenario 2 Route Alignment	14
Map 3 Scenario 3 Route Alignment	22
Table 1 Cost per Hour and Mile Breakdown	5
Table 2 Definitions of Periods and Frequency of Service	5
Table 3 Deadhead Distances and Durations	5
Table 4 Scenario 1 Directions	8
Table 5 Scenario 1 Stop Information	9
Table 6 Scenario 1 Travel Times and Speed	10
Table 7 Scenario 1 Revenue Service Information	11
Table 8 Scenario 1 PCT Daily Vehicle Block Information	11
Table 9 Scenario 1 Daily Operating Costs by Service Level	12
Table 10 Scenario 1 Total Annual Operating Cost	12
Table 11 Scenario 2 Directions	16
Table 12 Scenario 2 Stop Information	17
Table 13 Scenario 2 Travel Times and Speed	18
Table 14 Scenario 2 Daily Revenue Service Information	18
Table 15 Scenario 2 Daily PCT Vehicle Block Information	19
Table 16 Scenario 2 Daily RT Vehicle Block Information	19
Table 17 Scenario 2 Daily Total Operating Costs by Service Level	20
Table 18 Scenario 2 Total Annual Operating Cost	20
Table 19 Scenario 1 Directions	24
Table 20 Scenario 3 Stop Information	25
Table 21 Scenario 3 Travel Times and Speed	26
Table 22 Scenario 3 Daily Revenue Service Information for Scenario 1	26
Table 23 Scenario 3 Daily PCT Vehicle Block Information	27
Table 24 Scenario 3 RT Vehicle Block Information	28
Table 25 Scenario 3 Daily Total Operating Costs by Service Level	28
Table 26 Scenario 3 Total Annual Operating Cost	29

Introduction

The following memo details the operating cost and statistics for an express bus service between Lincoln, CA and Sacramento. After discussing preliminary route alignments with Placer County Transportation Planning Agency (PCTPA), Placer County Transit (PCT), and Roseville Transit (RT) staff, three alternatives were developed for further discussion. The main driving factor in the route scenarios is the amount of vehicles that are required to operate the service. Although the Roseville Train Station was discussed previously as a possible destination, this was removed from consideration due to plans that the City of Roseville may possibly implement a first/last mile strategy at the location.

Although there will be a recommended alternative, all information needed for the other route alignments and service levels will be provided as well. This approach was done for the following reasons:

- Providing multiple options creates a toolbox that PCTPA and the transit operators can choose from if there are any changes to levels of funding.
- Based off the meeting with the operators, it is unclear which of the two operators (Roseville Transit or Placer County Transit) would operate the service. Because of this, different scenarios may be better suited to different operators.
- In addition to the point above, some scenarios recommend changes to the existing transit networks and would require changes to one of the transit operator's networks and if they were unwilling or unable to do that then there are other options available.
- PCTPA requested that 60-minute frequency also be explored

In addition to the operating costs that are detailed below, there is the potential option that during the midday (traditionally not the commuter period) the route could serve as a local route traveling to Lincoln via Industrial and replace RT's Route S. This alternative is not shown partly due to the number of scenarios, service levels, and different operating costs that are listed below, but it would be an option to help mitigate costs of the new service with transferring operating costs from Route S to this service. This would create more accessibility to the Public Defenders Office and the Superior Court.

Route Alignments and Operating Information

Through feedback from transit operator staff and PCTPA, three additional alignments were developed to provide service between Lincoln and SacRT's Blue Line at the Watt/I-80 Light Rail Station. The three alignments are all designed to attract the most ridership, conserve valuable operations resources, and increase the mobility for Placer County residents and workers.

Scenario 2 and 3 have RT and PCT costs shown for both options because of the uncertainty of who would operate it. Scenario 1 is an exception because it would require the service to be interlined with a Placer County Transit route (Route 70 – Lincoln Circulator) or it would require an additional vehicle (three vehicles at a 60-minute frequency and five vehicles at a 30-minute frequency) if that were not done. The cost per hour and per mile are broken down in Table 1 below. The costs were taken from each operator's short-range transit plan and then adjusted for inflation in the years between.

Table 1 Cost per Hour and Mile Breakdown

Transit Operator	S RTP Cost per Hour	S RTP Cost Per File	2017 to 2020 Inflation Percentage	Cost per Hour Adjusted for Inflation	Cost per Mile Adjusted per Inflation
PCT	\$97.41	\$1.19	1.089%	\$106.08	\$1.30
RT	\$36.41	\$1.15	1.089%	\$39.65	\$1.25

Source: Transit Operator Short Range Transit Plans and U.S. Bureau of Labor Statistics Jan 2017 compared to January 2020

All scenarios have the same span of service from 5:00 AM through 9:00 PM. Starting the route in Lincoln at 5:00 AM allows for anyone on the first trip southbound to get to Downtown Sacramento before 7:00 AM and allow the customers on the first northbound trip to arrive at the hospital before 7:00 AM. The 9:00 PM aligns with the current span of PCT's Auburn to Light Rail Route. Table 2 defines the periods that are used and shows the frequency of the service throughout the day for the different levels of service.

Table 2 Definitions of Periods and Frequency of Service

Period	Time Frame	30/30 (min)	30/60 (min)	60/60 (min)
AM Peak	5:00 AM – 8:59 AM	30	30	60
Midday	9:00 AM – 2:59 PM	30	60	60
PM Peak	3:00 PM – 5:59 PM	30	30	60
Evening	6:00 PM – 9:00 PM	60	60	60

The deadhead distances and durations are calculated assuming the PCT vehicles are originating from 11428 F Ave, Auburn, CA 95603 and the RT vehicles are originating from 2075 Hilltop Cir, Roseville, CA 95747 for the location of the division that the blocks originate from. The deadhead distances and times are shown in Table 3 below.

Table 3 Deadhead Distances and Durations

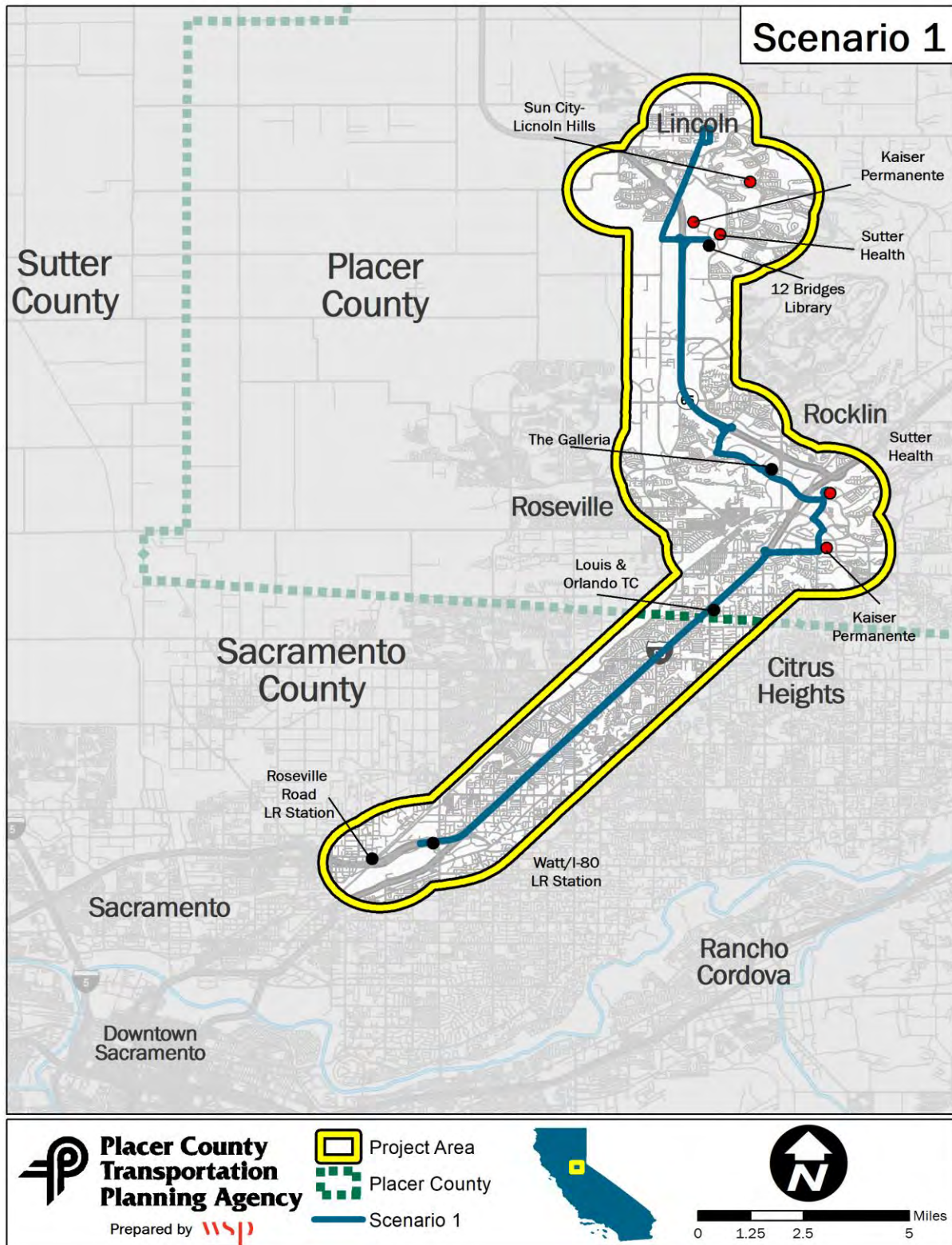
Period	From Garage Distance (mi)	To Garage Distance (mi)	From Garage Duration (min)	To Garage Durations (min)
PCT -3 rd Street at F Street	16.7	16.9	30	30
PCT – Twelve Bridges Library	24.3	24.8	35	35
RT -3 rd Street at F Street	13.1	12.7	30	30
RT – Twelve Bridges Library	11.0	10.9	25	25

Scenario 1

Scenario 1's northern terminal is in Downtown Lincoln near the denser populations and a more walkable street network that would increase access to the service. The Scenario would serve the recently built Lincoln Park & Ride, Twelve Bridges Library (transfer location), the Galleria Mall (transfer location), Sutter Roseville Medical Center, Kaiser Permanente Medical Roseville Medical Center, and the Watt/I-80 Light Rail Station (transfer location). The alignment allows for a comfortable transfer between services by entering into Twelve Bridges Library to connect with Route 20 – Lincoln/Rocklin/Sierra College.

This scenario is the most constrained in implementation since it would need to be operated by PCT, a 30-minute schedule is possible but there would be long durations with minimal layover time, and the schedule and routing for Route 70 – Lincoln Circulator would need to change slightly. The Lincoln Circulator would need to have the 16 minutes of layover/dwell that is currently occurring at the Twelve Bridges Library be changed to 3rd Street at F Street and the segment traveling to the library would be duplicative with the Express Route. The route is shown in Map 1.

Map 1 Scenario 1 Route Alignment



The following summarizes the estimated cost for operating this service:

- 30-minute service would cost \$8,441 daily and \$2,152,575 per year based off an estimated 255 weekdays in a year
- 30-minute peak and 60-minutes off-peak service would cost \$7,302 daily and \$1,861,957 per year based off an estimated 255 weekdays in a year
- 60-minutes service would cost \$4,750 daily and \$1,211,275 per year based off an estimated 255 weekdays in a year

The route would also require the addition of four new stops be built to better serve customers in the area and the construction of up to seven benches and seven shelters.

The following sections summarize the alignment, stops and operating information for Scenario 1.

Route Alignment

The directions for Scenario 1's route alignment are listed in Table 4 below.

Table 4 Scenario 1 Directions

Northbound	Southbound
<ol style="list-style-type: none"> 1. Starting from the Watt/I-80 Light Rail Station 2. Merge onto I-80 Eastbound 3. Exit Douglas Blvd 4. Head East on Douglas Blvd 5. Left on Rocky Ridge Dr 6. Left on Eureka Rd 7. Right on N. Sunrise Ave 8. Right on Medical Plaza Dr 9. Left on Medical Pz 10. Continue on N. Sunrise Ave 11. Right on E Roseville Pkwy 12. Right on Pleasant Grove Blvd 13. Merge on to Hwy-65 Towards Lincoln 14. Exit Twelve Bridges Dr 15. Right on Colonnade Dr 16. U-turn in the roundabout back on Colonnade Dr 17. Left on Twelve Bridges Dr 18. Right on Industrial Ave 19. Continue on Lincoln Blvd 20. Right on 3rd Street 21. Layover behind Walmart 	<ol style="list-style-type: none"> 1. Starting from 3rd Street at F ST (NS) 2. Right on E Street 3. First exit of the roundabout on Gateway Dr 4. Left on Old Hwy 65 (Lincoln Blvd North of intersection) 5. Left on Twelve Bridges Dr 6. Right on Colonnade Dr 7. U-turn in the roundabout back on Colonnade Dr 8. Left on Twelve Bridges Dr 9. Merge on Hwy-65 towards Roseville 10. Exit Pleasant Grove Blvd 11. Right on Pleasant Grove Blvd 12. Left on Roseville Pkwy 13. Left on West Dr 14. Right on Galleria Dr 15. Right on Reserve Dr 16. Left on Roseville Pkwy 17. Left on N Sunrise Ave 18. Right on Medical Plaza Dr 19. Left on Medical Pz 20. Continue on N. Sunrise Ave 21. Left on Eureka Rd 22. Right on Rocky Ridge Dr 23. Right on Douglas Blvd 24. Merge on to I-80 West 25. Exit freeway to serve Watt/I-80 Light Rail Station inline of freeway 26. Layover at Light Rail Station

Stop information

The following table (Table 5) provides a breakdown of the stop locations, and the existing amenities and services at the stop.

Table 5 Scenario 1 Stop Information

Stop Intersection	Direction and Location	Existing Stop	Existing bench	Existing Shelter	Existing Trashcan	ADA Accessible	Routes Serving Stop
3 rd Street at F street	Terminal Near-side	Yes	Yes	Yes	Yes	Yes	PCT-70
Lincoln Blvd at Sterling Pkwy	Northbound Far-side	No	No	No	No	No	-
Lincoln Blvd at Sterling Pkwy	Southbound Far-side	No	No	No	No	No	-
Industrial at Park & Ride	Southbound Far-side	No	No	No	No	No	-
Industrial at Park & Ride	Northbound Far-side	Yes	No	No	No	Yes	-
Twelve Bridges Library	Both Directions Near-side	Yes	Yes	Yes	Yes	Yes	PCT-20,70
Galleria TC	Both Directions	Yes	Yes	Yes	Yes	Yes	RT – A, B, M, S PCT-10,20
Roseville Rd at Taylor Rd	Northbound Far-side	Yes	No	No	No	Yes	RT-B
Roseville Rd at Taylor Rd	Southbound Far-side	Yes	No	No	No	Yes	-
Sutter Hospital	Transit Center	Yes	Yes	Yes	Yes	Yes	RT-A,B
Rocky Ridge Across from Kaiser	Southbound midblock	Yes	Yes	Yes	Yes	Yes	RT-L
Rocky Ridge next to Kaiser	Northbound midblock	Yes	No	No	No	Yes	-
Watt/I-80 LR Station	Terminal Stop	Yes	Yes	Yes	Yes	Yes	SacRT, PCT routes

Operating Stats and Estimated Cost

The estimated speed of the route is detailed in Table 6 below. There is very minimal duplication of similar services in the area so travel times are based off Google Maps and the fastest route in Placer County (PCT's Auburn to Light Rail Route). The "Fastest Time (Google)" is based on the trip duration if a bus could drive as fast as a car, did not need to board or alight customers, and there were minimal passengers. The "Estimated Times (Google)" uses the duration in the middle of the range provided by Google Maps to help account for the slower acceleration of the transit vehicle, traffic, and customers boarding and alighting.

Table 6 Scenario 1 Travel Times and Speed

Northbound	LR Station to Kaiser	Kaiser to Sutter	Sutter to Galleria	Galleria to Twelve Bridges	Twelve Bridges to Downtown Lincoln	Total	MPH per Trip
Distance [Mi]	10.5	1.6	1.6	7.2	3.7	24.6	-
Estimated Time (Google) [min]	17.0	6.0	7.0	13.0	11.0	54.0	27.3
Fastest Time (Google) [min]	12.0	4.0	4.0	9.0	8.0	37.0	39.9
PCT Fastest Route Time [min]	22.1	3.4	3.4	15.2	7.8	51.8	28.5
Southbound	Downtown Lincoln to Twelve Bridges	Twelve Bridges to Galleria	Galleria to Sutter	Sutter to Kaiser	Kaiser to LR Station	Total	MPH per Trip
Distance [Mi]	4	7.3	1.8	1.6	11.0	25.7	-
Estimated Time (Google) [min]	12.0	15.0	9.0	7.0	19.0	62.0	24.9
Fastest Time (Google) [min]	9.0	12.0	5.0	4.0	14.0	44.0	35.0
PCT Fastest Route Time [min]	8.4	15.4	3.8	3.4	23.2	54.1	28.5

The following table (Table 7) details the in-service stats if the route were to operate at 30-minutes all day, 30-minutes in the peak (6:00 AM – 8:59 AM 3:00 PM – 5:59 PM) and 60-minutes in the off-peak, and 60-minutes all day.

Table 7 Scenario 1 Revenue Service Information

Frequency (Peak/Off-Peak)	Span	Inbound Trips to Watt/I-80 LR Station	Outbound Trips to Lincoln	Daily Revenue Hours	Daily Revenue Miles
30/30	5:00 AM – 9:00 PM	28	28	56.6	1416.8
30/60	5:00 AM – 9:00 PM	23	23	46.1	1,163.8
60/60	5:00 AM – 9:00 PM	16	16	32.0	809.6

The table below (Table 8) details the block information. The deadhead hours and miles for PCT are calculated using 11428 F Ave, Auburn, CA 95603 for the location of the division that the blocks originate from. The service would require four vehicles if operated with 30-minute service and two vehicles if operated at 60-minute service.

Table 8 Scenario 1 PCT Daily Vehicle Block Information

Frequency	Vehicle Block	Pull- Out Time	First Trip Start Time	Last Trip End Time	Pull-in Time	Daily Revenue Hours	Daily Total Hours	Daily Revenue Miles	Daily Total Miles
30/30	1	4:28	4:58	18:59	19:29	14.0	15.02	354.2	387.8
	2	4:58	5:28	19:29	19:59	14.0	15.02	354.2	387.8
	3	5:28	5:58	19:59	20:29	14.0	15.02	354.2	387.8
	4	5:58	6:28	20:59	21:29	14.5	15.52	354.2	387.8
	Total	-	-	-	-	56.6	60.6	1416.8	1551.2
30/60	1	4:28	4:58	20:59	21:29	16.0	17.02	404.8	438.4
	2	4:58	5:28	9:29	9:59	4.0	5.02	101.2	134.8
	3	5:28	5:58	19:59	20:29	14.0	15.02	354.2	387.8
	4	5:58	6:28	10:29	10:59	4.0	5.02	101.2	134.8
	5	14:58	15:28	19:29	19:59	4.0	5.02	101.2	134.8
	6	15:58	16:28	20:29	20:59	4.0	5.02	101.2	134.8
	Total	-	-	-	-	46.1	52.1	1,163.8	1,365.4
60/60	1	4:28	4:58	20:59	21:29	16.0	17.0	404.8	438.4
	2	5:28	5:58	21:59	22:29	16.0	17.0	404.8	438.4
	Total	-	-	-	-	32.0	34.0	809.6	876.8

The daily operating cost for PCT to operate the service is estimated to be between \$4,750 and \$8,441 depending on the service levels. The cost breakdown by service level, by hour, by mile, and overall is shown in Table 9.

Table 9 Scenario 1 Daily Operating Costs by Service Level

Operator	Frequency (Peak/ Off-Peak)	Daily Total Hours	Daily Total Miles	Cost per hour	Cost per Mile	Daily Hourly Cost	Daily Mile Cost	Total Cost
PCT	30/30	60.6	1551.2	\$106.08	\$1.30	\$6,424.91	\$2,016.56	\$8,441.47
	30/60	52.1	1365.4	\$106.08	\$1.30	\$5,526.77	\$1,775.02	\$7,301.79
	60/60	34.0	876.8	\$106.08	\$1.30	\$3,610.26	\$1,139.84	\$4,750.10

To create an annual estimated operating cost, the total daily operating cost was then multiplied by 255 days (This is assuming that there are around 260 weekdays and five holidays where the service would not be operating). The estimated annual cost is shown in Table 10. The estimated annual operating cost ranges from \$1.2 to \$2.2 million dollars annually for the new service depending on the service levels.

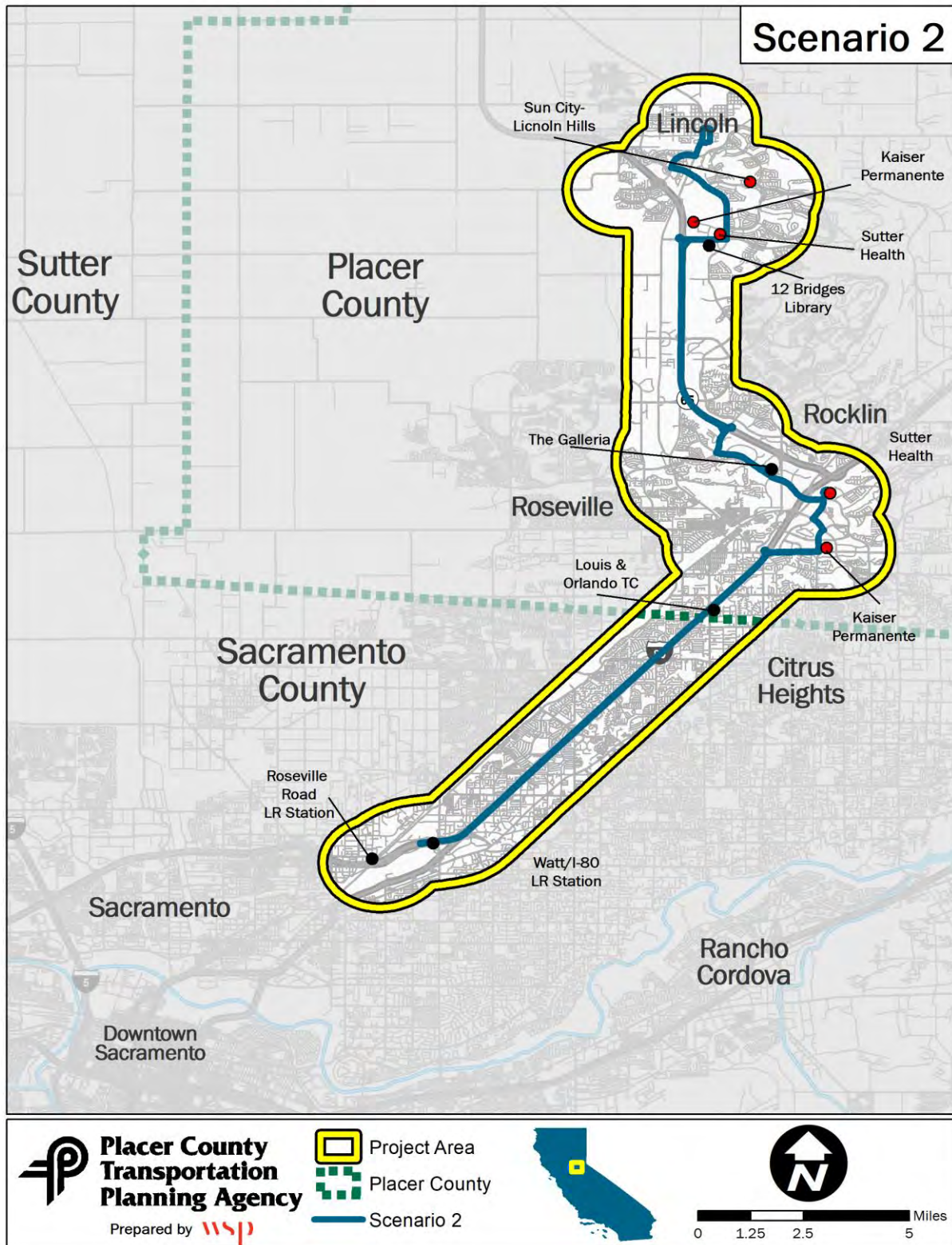
Table 10 Scenario 1 Total Annual Operating Cost

Operator	Frequency (Peak/ Off-Peak)	Total Annual Operating Cost
PCT	30/30	\$2,152,574.85
	30/60	\$1,861,956.45
	60/60	\$1,211,275.50

Scenario 2

Scenario 2's northern terminal would be Downtown Lincoln. This Scenario would serve the Twelve Bridges Library (transfer location), the Galleria Mall (transfer location), Sutter Roseville Medical Center, Kaiser Permanente Medical Roseville Medical Center, and the Watt/I-80 Light Rail Station (transfer location). The alignment allows for a transfer between all services in Lincoln by connecting with Route 20 – Lincoln/Rocklin/Sierra College and Route 70 – Lincoln Circulator; however, to maintain the speed of the service, the Twelve Bridges Library stops are located on the street and the vehicle does not pull-in to the library.

Map 2 Scenario 2 Route Alignment



The following summarizes the estimated cost for operating this service for PCT and RT:

PCT:

- 30-minute service would cost \$8,530 daily and \$2,175,144 per year based off an estimated 255 weekdays in a year
- 30-minute peak and 60-minutes off-peak service would cost \$7,439 daily and \$1,897,068 per year based off an estimated 255 weekdays in a year
- 60-minutes service would cost \$4,793 daily and \$1,222,426 per year based off an estimated 255 weekdays in a year

RT:

- 30-minute service would cost \$4,220 daily and \$1,076,119 per year based off an estimated 255 weekdays in a year
- 30-minute peak and 60-minutes off-peak service would cost \$3,597 daily and \$917,152 per year based off an estimated 255 weekdays in a year
- 60-minutes service would cost \$2,385 daily and \$ per year based off an estimated 255 weekdays in a year

The route would also require the addition of four new stops be built to better serve customers in the area and the construction of up to five benches and five shelters.

The following sections summarize the alignment, stops and operating information for Scenario 2.

[Route Alignment](#)

The directions for Scenario 2's route alignment are listed in Table 11 below. The decision to serve the park & Ride before the library was due to better providing a space for operators to rest and/or use the restroom between trips.

Table 11 Scenario 2 Directions

Northbound	Southbound
<ol style="list-style-type: none"> 1. Starting from the Watt/I-80 Light Rail Station 2. Merge onto I-80 Eastbound 3. Exit Douglas Blvd 4. Head East on Douglas Blvd 5. Left on Rocky Ridge Dr 6. Left on Eureka Rd 7. Right on N. Sunrise Ave 8. Right on Medical Plaza Dr 9. Left on Medical Pz 10. Continue on N. Sunrise Ave 11. Right on E Roseville Pkwy 12. Right on Pleasant Grove Blvd 13. Merge on to Hwy-65 Towards Lincoln 14. Exit Twelve Bridges Dr 15. Right on Twelve Bridges Dr 16. Left on Joiner Pkwy 17. Right on Ferrari Ranch Rd 18. Left on Lincoln Blvd 19. Right on 3rd St 20. Layover behind the Walmart 	<ol style="list-style-type: none"> 1. Starting from Walmart 2. Right on E Street 3. Fuse first exist in the roundabout on Gateway Dr 4. Left on Lincoln Blvd 5. Right on Ferrari Ranch Rd 6. Left on Joiner Pkwy 7. Right on Twelve Bridges dr 8. Right on Hwy-65 towards Roseville 9. Exit Pleasant Grove Blvd 10. Right on Pleasant Grove Blvd 11. Left on Roseville Pkwy 12. Left on West Dr 13. Right on Galleria Dr 14. Right on Reserve Dr 15. Left on Roseville Pkwy 16. Left on N Sunrise Ave 17. Right on Medical Plaza Dr 18. Left on Medical Pz 19. Continue on N. Sunrise Ave 20. Left on Eureka Rd 21. Right on Rocky Ridge Dr 22. Right on Douglas Blvd 23. Merge on to I-80 West 24. Exit freeway to serve Watt/I-80 Light Rail Station inline of freeway 25. Layover at Light Rail Station

Stop information

The following table (Table 12) provides a breakdown of the stop locations, and the existing amenities and services at the stop.

Table 12 Scenario 2 Stop Information

Stop Intersection	Direction and Location	Existing Stop	Existing bench	Existing Shelter	Existing Trashcan	ADA Accessible	Routes Serving Stop
3rd Street at F street	Terminal Near-side	Yes	Yes	Yes	Yes	Yes	PCT-70
Joiner at Sterling Pkwy	Northbound Far-side	No	No	No	No	No	-
Joiner at Sterling Pkwy	Southbound Far-side	No	No	No	No	No	-
Twelve Bridges Dr at Colonnade Dr	Northbound Far-side	No	No	No	No	No	-
Twelve Bridges Dr at Colonnade Dr	Southbound far-side	No	No	No	No	No	-
Galleria TC	Both Directions	Yes	Yes	Yes	Yes	Yes	RT – A, B, M, S PCT-10,20
Sutter Hospital	Transit Center	Yes	Yes	Yes	Yes	Yes	RT-A,B
Rocky Ridge Across from Kaiser	Southbound midblock	Yes	Yes	Yes	Yes	Yes	RT-L
Rocky Ridge next to Kaiser	Northbound midblock	Yes	No	No	No	Yes	-
Watt/I-80 LR Station	Terminal Stop	Yes	Yes	Yes	Yes	Yes	SacRT, PCT routes

Operating Stats and Estimated Cost

The estimated speed of the route is detailed in Table 13 below. There is very minimal duplication of similar services in the area so travel times are based off Google Maps and the fastest route in Placer County (PCT's Auburn to Light Rail Route). The "Fastest Time (Google)" is based on the trip duration if a bus could drive as fast as a car, did not need to board or alight customers, and there were minimal passengers. The "Estimated Times (Google)" uses the duration in the middle of the range provided by Google Maps to help account for the slower acceleration of the transit vehicle, traffic, and customers boarding and alighting.

Table 13 Scenario 2 Travel Times and Speed

Northbound	LR Station to Kaiser	Kaiser to Sutter	Sutter to Galleria	Galleria to Downtown Lincoln via Joiner	Total	MPH per Trip
Distance [Mi]	10.5	1.6	1.6	11.0	24.7	-
Estimated Time (Google) [min]	17.0	6.0	7.0	21.0	51.0	29.1
Fastest Time (Google) [min]	12.0	4.0	4.0	16.0	36.0	41.2
PCT Fastest Route Time [min]	22.1	3.4	3.4	23.2	52.0	28.5
Southbound	Downtown Lincoln to Twelve Bridges	Galleria to Sutter	Sutter to Kaiser	Kaiser to LR Station	Total	MPH per Trip
Distance [Mi]	11.3	1.8	1.6	11.0	25.7	-
Estimated Time (Google) [min]	24.0	9.0	7.0	19.0	59.0	26.1
Fastest Time (Google) [min]	22.0	5.0	4.0	14.0	45.0	34.3
PCT Fastest Route Time [min]	23.8	3.8	3.4	23.2	54.1	28.5

The following table (Table 14) details the in-service stats if the route were to operate at 30-minutes all day, 30-minutes in the peak (6:00 AM – 8:59 AM 3:00 PM – 5:59 PM) and 60-minutes in the off-peak, and 60-minutes all day.

Table 14 Scenario 2 Daily Revenue Service Information

Frequency (Peak/Off-Peak)	Span	Inbound Trips to Watt/I-80 LR Station	Outbound Trips to Lincoln	Daily Revenue Hours	Daily Revenue Miles
30/30	5:00 AM – 9:00 PM	28	28	56.2	1,401.1
30/60	5:00 AM – 9:00 PM	23	23	45.5	1,144.1
60/60	5:00 AM – 9:00 PM	16	16	31.8	801.4

The two tables below (Table 15 and Table 16) detail the block information if each transit agency were to operate the service. The deadhead hours and miles for PCT are calculated using 11428 F Ave, Auburn, CA 95603 for the location of the division that the blocks originate from. The deadhead hours and miles for RT are calculated using 2075 Hilltop Cir, Roseville, CA 95747 for the location of the division that the

blocks originate from. The service would require four vehicles if operated with 30-minute service and two vehicles if operated at 60-minute service

Table 15 Scenario 2 Daily PCT Vehicle Block Information

Frequency	Vehicle Block	Pull-Out Time	First Trip Start Time	Last Trip End Time	Pull-in Time	Daily Revenue Hours	Daily Total Hours	Daily Revenue Miles	Daily Total Miles
30/30	1	4:26	5:01	18:56	19:31	13.9	15.08	350.3	399.4
	2	4:56	5:31	19:26	20:01	13.9	15.08	350.3	399.4
	3	5:26	6:01	19:56	20:31	13.9	15.08	350.3	399.4
	4	5:56	6:31	20:56	21:31	14.4	15.58	350.3	399.4
	Total	-	-	-	-	56.2	60.8	1401.12	1597.52
30/60	1	4:26	5:01	20:56	21:31	15.9	17.08	400.7	449.8
	2	4:56	5:31	9:26	10:01	3.9	5.08	98.3	147.4
	3	5:26	6:01	19:56	20:31	13.9	15.08	350.3	399.4
	4	5:56	6:31	10:26	11:01	3.9	5.08	98.3	147.4
	5	14:56	15:31	19:26	20:01	3.9	5.08	98.3	147.4
	6	15:56	16:31	20:26	21:01	3.9	5.08	98.3	147.4
	Total	-	-	-	-	45.5	52.5	1,144.1	1,438.7
60/60	1	4:26	5:01	20:56	21:31	15.9	17.1	400.7	449.8
	2	5:26	6:01	21:56	22:31	15.9	17.1	400.7	449.8
	Total	-	-	-	-	31.8	34.2	801.36	899.56

Table 16 Scenario 2 Daily RT Vehicle Block Information

Frequency	Vehicle Block	Pull-Out Time	First Trip Start Time	Last Trip End Time	Pull-in Time	Daily Revenue Hours	Daily Total Hours	Daily Revenue Miles	Daily Total Miles
30/30	1	4:36	5:01	18:56	19:21	13.9	14.8	350.3	372.2
	2	5:06	5:31	19:26	19:51	13.9	14.8	350.3	372.2
	3	5:36	6:01	19:56	20:21	13.9	14.8	350.3	372.2
	4	6:06	6:31	20:56	21:21	14.4	15.3	350.3	372.2
	Total	-	-	-	-	56.2	59.5	1401.1	1488.7
30/60	1	4:36	5:01	20:56	21:21	15.9	16.8	400.7	422.6
	2	5:06	5:31	9:26	9:51	3.9	4.8	98.3	120.2
	3	5:36	6:01	19:56	20:21	13.9	14.8	350.3	372.2
	4	6:06	6:31	10:26	10:51	3.9	4.8	98.3	120.2
	5	15:06	15:31	19:26	19:51	3.9	4.8	98.3	120.2
	6	16:06	16:31	20:26	20:51	3.9	4.8	98.3	120.2
	Total	-	-	-	-	45.5	50.5	1,144.1	1,275.5
60/60	1	4:36	5:01	20:56	21:21	15.9	16.8	400.7	422.6
	2	5:36	6:01	21:56	22:21	15.9	16.8	400.7	422.6
	Total	-	-	-	-	31.8	33.5	801.4	845.2

The daily operating cost for PCT to operate the service is estimated to be between \$4,793 and \$8,529 and the daily operating cost for RT to operate the service is estimated to be between \$2,384 and \$4,220 depending on the service levels. The cost breakdown by service level, by hour, by mile, and overall is shown in Table 17.

Table 17 Scenario 2 Daily Total Operating Costs by Service Level

Operator	Frequency (Peak/ Off-Peak)	Daily Total Hours	Daily Total Miles	Cost per hour	Cost per Mile	Daily Hourly Cost	Daily Mile Cost	Total Cost
PCT	30/30	60.8	1597.52	\$106.08	\$1.30	\$6,453.20	\$2,076.78	\$8,529.98
	30/60	52.5	1438.68	\$106.08	\$1.30	\$5,569.20	\$1,870.28	\$7,439.48
	60/60	34.2	899.56	\$106.08	\$1.30	\$3,624.40	\$1,169.43	\$4,793.83
RT	30/30	59.5	1488.72	\$39.65	\$1.25	\$2,359.18	\$1,860.90	\$4,220.08
	30/60	50.5	1275.48	\$39.65	\$1.25	\$2,002.33	\$1,594.35	\$3,596.68
	60/60	33.5	845.16	\$39.65	\$1.25	\$1,328.28	\$1,056.45	\$2,384.73

To create an annual estimated operating cost, the total daily operating cost was then multiplied by 255 days (This is assuming that there are around 260 weekdays and five holidays where the service would not be operating). The estimated annual cost is shown in Table 18. The estimated annual operating cost ranges from \$1.2 to \$2.2 million dollars annually for PCT and \$0.6 to 1.1 million for RT to operate the service depending on the service levels.

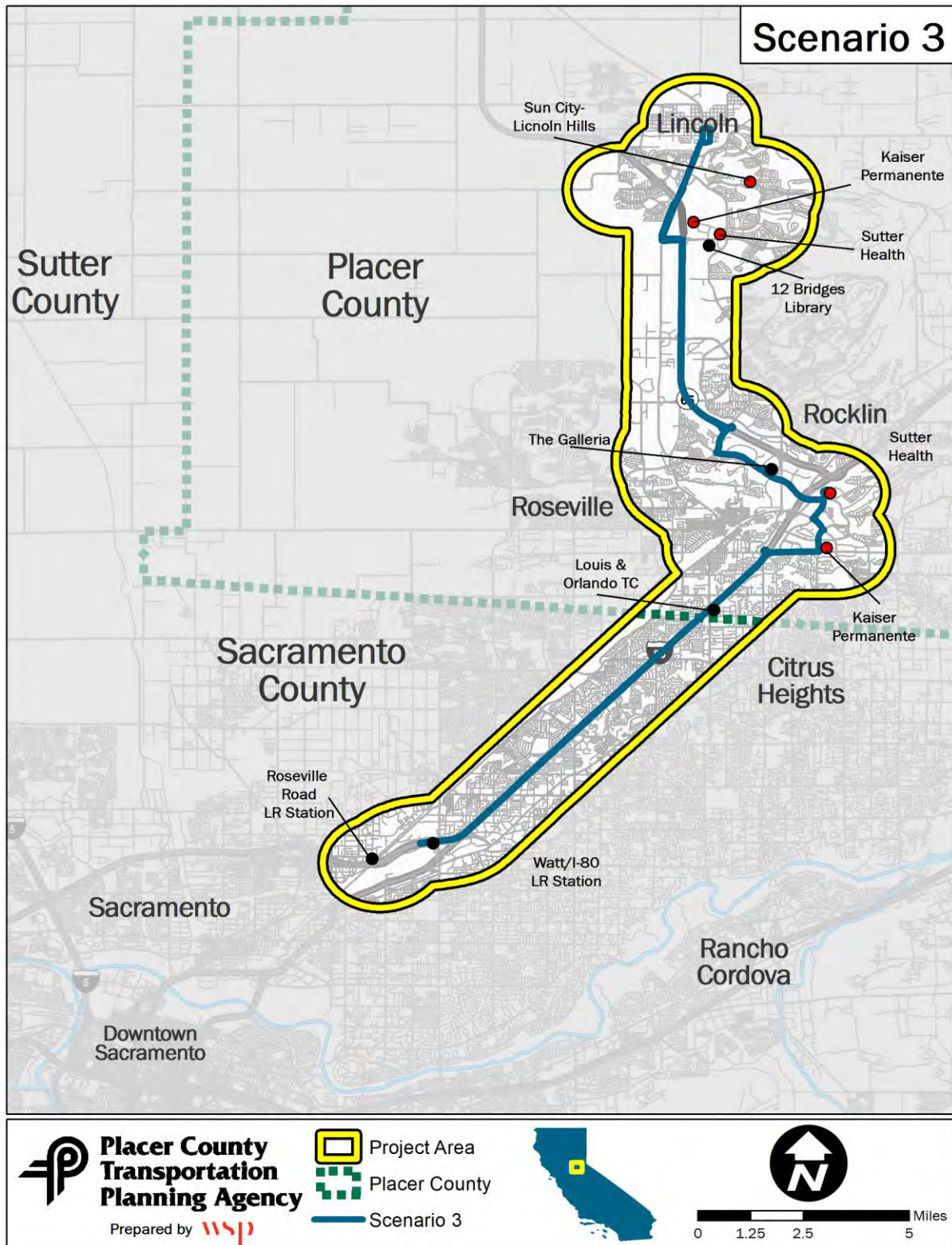
Table 18 Scenario 2 Total Annual Operating Cost

Operator	Frequency (Peak/ Off-Peak)	Total Annual Operating Cost
PCT	30/30	\$2,175,143.88
	30/60	\$1,897,068.42
	60/60	\$1,222,426.14
RT	30/30	\$1,076,119.13
	30/60	\$917,152.13
	60/60	\$608,104.88

Scenario 3

Scenario 3's northern terminal would be Downtown Lincoln. The Scenario would serve the recently built Lincoln Park & Ride, the Galleria Mall, Sutter Roseville Medical Center, Kaiser Permanente Medical Roseville Medical Center, and the Watt/I-80 Light Rail Station. The alignment is the most direct of all the scenarios, but customers transferring between Route 20 – Lincoln/Rocklin/Sierra College and the new route would have to do an on-street transfer on Twelve Bridges Rd. The route is shown in Map 3 below.

Map 3 Scenario 3 Route Alignment



The following Summarizes the estimated cost for operating this service for PCT and RT:

PCT:

- 30-minute service would cost \$8,184 daily and \$2,086,793 per year based off an estimated 255 weekdays in a year
- 30-minute peak and 60-minutes off-peak service would cost \$7,001 daily and \$1,785,326 per year based off an estimated 255 weekdays in a year
- 60-minutes service would cost \$4,612 daily and \$1,176,062 per year based off an estimated 255 weekdays in a year

RT:

- 30-minute service would cost \$4,116 daily and 1,049,521 per year based off an estimated 255 weekdays in a year
- 30-minute peak and 60-minutes off-peak service would cost \$3,519 daily and \$897,240 per year based off an estimated 255 weekdays in a year
- 60-minutes service would cost \$2,324 daily and \$592,701 per year based off an estimated 255 weekdays in a year

The route would also require the addition of four new stops be built to better serve customers in the area and the construction of up to seven benches and seven shelters.

The following sections summarize the alignment, stops and operating information for Scenario 3.

[Route Alignment](#)

The directions for Scenario 3's route alignment is listed in Table 19 below.

Table 19 Scenario 1 Directions

Northbound	Southbound
<ol style="list-style-type: none"> 1. Starting from the Watt/I-80 Light Rail Station 2. Merge onto I-80 Eastbound 3. Exit Douglas Blvd 4. Head East on Douglas Blvd 5. Left on Rocky Ridge Dr 6. Left on Eureka Rd 7. Right on N. Sunrise Ave 8. Right on Medical Plaza Dr 9. Left on Medical Pz 10. Continue on N. Sunrise Ave 11. Right on E Roseville Pkwy 12. Right on Pleasant Grove Blvd 13. Merge on to Hwy-65 Towards Lincoln 14. Exit Twelve Bridges Dr 15. Left on 12 Bridges 16. Right on Industrial Ave 17. Continue on Lincoln Blvd 18. Right on 3rd Street 19. Layover behind Walmart 	<ol style="list-style-type: none"> 1. Starting from 3rd Street at F ST (NS) 2. Right on E Street 3. First exit of the roundabout on Gateway Dr 4. Left on Old Hwy 65 (Lincoln Blvd North of intersection) 5. Left on Twelve Bridges Dr 6. Merge on Hwy-65 towards Roseville 7. Exit Pleasant Grove Blvd 8. Right on Pleasant Grove Blvd 9. Left on Roseville Pkwy 10. Left on West Dr 11. Right on Galleria Dr 12. Right on Reserve Dr 13. Left on Roseville Pkwy 14. Left on N Sunrise Ave 15. Right on Medical Plaza Dr 16. Left on Medical Pz 17. Continue on N. Sunrise Ave 18. Left on Eureka Rd 19. Right on Rocky Ridge Dr 20. Right on Douglas Blvd 21. Merge on to I-80 West 22. Exit freeway to serve Watt/I-80 Light Rail Station inline of freeway 23. Layover at Light Rail Station

Stop information

The following Table (Table 20) provides a breakdown of the stop locations, and the existing amenities and services at the stop.

Table 20 Scenario 3 Stop Information

Stop Intersection	Direction and Location	Existing Stop	Existing bench	Existing Shelter	Existing Trashcan	ADA Accessible	Routes Serving Stop
3 rd Street at F street	Terminal Near-side	Yes	Yes	Yes	Yes	Yes	PCT-70
Lincoln Blvd at Sterling Pkwy	Northbound Far-side	No	No	No	No	No	-
Lincoln Blvd at Sterling Pkwy	Southbound Far-side	No	No	No	No	No	-
Industrial at Park & Ride	Southbound Far-side	No	No	No	No	No	-
Industrial at Park & Ride	Northbound Far-side	Yes	No	No	No	Yes	-
Galleria TC	Both Directions	Yes	Yes	Yes	Yes	Yes	RT – A, B, M, S PCT-10,20
Roseville Rd at Taylor Rd	Northbound Far-side	Yes	No	No	No	Yes	RT-B
Roseville Rd at Taylor Rd	Southbound Far-side	Yes	No	No	No	Yes	-
Sutter Hospital	Transit Center	Yes	Yes	Yes	Yes	Yes	RT-A,B
Rocky Ridge Across from Kaiser	Southbound midblock	Yes	Yes	Yes	Yes	Yes	RT-L
Rocky Ridge next to Kaiser	Northbound midblock	No	No	No	No	Yes	-
Watt/I-80 LR Station	Terminal Stop	Yes	Yes	Yes	Yes	Yes	SacRT, PCT routes

Operating Stats and Estimated Cost

The estimated speed of the route is detailed in Table 21 below. There is very minimal duplication of similar services in the area so travel times are based off Google Maps and the fastest route in Placer County (PCT's Auburn to Light Rail Route). The "Fastest Time (Google)" is based on the trip duration if a bus could drive as fast as a car, did not need to board or alight customers, and there were minimal passengers. The "Estimated Times (Google)" uses the duration in the middle of the range provided by Google Maps to help account for the slower acceleration of the transit vehicle, traffic, and customers boarding and alighting.

Table 21 Scenario 3 Travel Times and Speed

Northbound	LR Station to Kaiser	Kaiser to Sutter	Sutter to Galleria	Galleria to Downtown Lincoln via Park & Ride	Total	MPH per Trip
Distance [Mi]	10.5	1.6	1.6	10	23.7	-
Estimated Time (Google) [min]	17.0	6	7	20	50.0	28.4
Fastest Time (Google) [min]	12.0	4.0	4.0	14.0	34.0	41.8
PCT Fastest Route Time [min]	22.1	3.4	3.4	21.1	49.9	28.5
Southbound	Downtown Lincoln to Galleria via Park & Ride	Galleria to Sutter	Sutter to Kaiser	Kaiser to LR Station	Total	MPH per Trip
Distance [Mi]	9.9	1.8	1.6	11.0	24.3	-
Estimated Time (Google) [min]	22.0	9.0	7.0	19.0	57.0	25.6
Fastest Time (Google) [min]	16.0	5.0	4.0	14.0	39.0	37.4
PCT Fastest Route Time [min]	20.8	3.8	3.4	23.2	51.2	28.5

The following table (Table 22) details the in-service stats if the route were to operate at 30-minutes all day, 30-minutes in the peak (6:00 AM – 8:59 AM 3:00 PM – 5:59 PM) and 60-minutes in the off-peak, and 60-minutes all day.

Table 22 Scenario 3 Daily Revenue Service Information for Scenario 1

Frequency (Peak/Off-Peak)	Span	Inbound Trips to Watt/I-80 LR Station	Outbound Trips to Lincoln	Daily Revenue Hours	Daily Revenue Miles
30/30	5:00 AM – 9:00 PM	28	28	55.6	1299.96
30/60	5:00 AM – 9:00 PM	23	23	44.6	1,055.0
60/60	5:00 AM – 9:00 PM	16	16	31.5	744.18

The two tables below (Table 23 and

Table 24) detail the block information if each transit agency were to operate the service. The deadhead hours and miles for PCT are calculated using 11428 F Ave, Auburn, CA 95603 for the location of the division that the blocks originate from. The deadhead hours and miles for RT are calculated using 2075 Hilltop Cir, Roseville, CA 95747 for the location of the division that the blocks originate from. The service would require four vehicles if operated with 30-minute service and two vehicles if operated at 60-minute service

Table 23 Scenario 3 Daily PCT Vehicle Block Information

Frequency	Vehicle Block	Pull-Out Time	First Trip Start Time	Last Trip End Time	Pull-in Time	Daily Revenue Hours	Daily Total Hours	Daily Revenue Miles	Daily Total Miles
30/30	1	4:36	5:06	18:52	19:22	13.8	14.77	325.0	358.6
	2	5:06	5:36	19:22	19:52	13.8	14.77	325.0	358.6
	3	5:36	6:06	19:52	20:22	13.8	14.77	325.0	358.6
	4	6:06	6:36	20:52	21:22	14.3	15.27	325.0	358.6
	Total	-	-	-	-	55.6	59.6	1299.96	1434.36
30/60	1	4:36	5:06	20:52	21:22	15.8	16.77	372.1	405.7
	2	5:06	5:36	9:22	9:52	3.8	4.77	89.5	123.1
	3	5:36	6:06	19:52	20:22	13.8	14.77	325.0	358.6
	4	6:06	6:36	10:22	10:52	3.8	4.77	89.5	123.1
	5	15:06	15:36	19:22	19:52	3.8	4.77	89.5	123.1
	6	16:06	16:36	20:22	20:52	3.8	4.77	89.5	123.1
	Total	-	-	-	-	44.6	50.6	1,055.0	1,256.6
60/60	1	4:36	5:06	20:52	21:22	15.8	16.8	372.1	405.7
	2	5:36	6:06	21:52	22:22	15.8	16.8	372.1	405.7
	Total	-	-	-	-	31.5	33.5	744.18	811.38

Table 24 Scenario 3 RT Vehicle Block Information

Frequency	Vehicle Block	Pull-Out Time	First Trip Start Time	Last Trip End Time	Pull-in Time	Daily Revenue Hours	Daily Total Hours	Daily Revenue Miles	Daily Total Miles
30/30	1	4:36	5:06	18:52	19:22	13.8	14.8	325.0	350.8
	2	5:06	5:36	19:22	19:52	13.8	14.8	325.0	350.8
	3	5:36	6:06	19:52	20:22	13.8	14.8	325.0	350.8
	4	6:06	6:36	20:52	21:22	14.3	15.3	325.0	350.8
	Total	-	-	-	-	55.6	59.6	1299.96	1403.16
30/60	1	4:36	5:06	20:52	21:22	15.8	16.8	372.1	397.9
	2	5:06	5:36	9:22	9:52	3.8	4.8	89.5	115.3
	3	5:36	6:06	19:52	20:22	13.8	14.8	325.0	350.8
	4	6:06	6:36	10:22	10:52	3.8	4.8	89.5	115.3
	5	15:06	15:36	19:22	19:52	3.8	4.8	89.5	115.3
	6	16:06	16:36	20:22	20:52	3.8	4.8	89.5	115.3
	Total	-	-	-	-	44.6	50.6	1,055.0	1,209.8
60/60	1	4:36	5:06	20:52	21:22	15.8	16.8	372.1	397.9
	2	5:36	6:06	21:52	22:22	15.8	16.8	372.1	397.9
	Total	-	-	-	-	31.5	33.5	744.18	795.78

The daily operating cost for PCT to operate the service is estimated to be between \$4,612 and \$8,183 daily depending on the service levels and the \$2,324 and \$4,116 for RT to operate the service. The cost breakdown by service level, by hour, by mile, and overall is shown in Table 25

Table 25 Scenario 3 Daily Total Operating Costs by Service Level

Operator	Frequency (Peak/ Off-Peak)	Daily Total Hours	Daily Total Miles	Cost per hour	Cost per Mile	Daily Hourly Cost	Daily Mile Cost	Total Cost
PCT	30/30	59.6	1434.36	\$106.08	\$1.30	\$6,318.83	\$1,864.67	\$8,183.50
	30/60	50.6	1256.64	\$106.08	\$1.30	\$5,367.65	\$1,633.63	\$7,001.28
	60/60	33.5	811.38	\$106.08	\$1.30	\$3,557.22	\$1,054.79	\$4,612.01
RT	30/30	59.6	1403.16	\$39.65	\$1.25	\$2,361.82	\$1,753.95	\$4,115.77
	30/60	50.6	1209.84	\$39.65	\$1.25	\$2,006.29	\$1,512.30	\$3,518.59
	60/60	33.5	795.78	\$39.65	\$1.25	\$1,329.60	\$994.73	\$2,324.32

To create an annual estimated operating cost, the total daily operating cost was then multiplied by 255 days (This is assuming that there are around 260 weekdays and five holidays where the service would not be operating). The estimated annual cost is shown in Table 26. The estimated annual operating cost ranges from \$1.2 to \$2.1 million dollars annually for PCT and \$0.5 to 1.0 million for RT to operate the service depending on the service levels.

Table 26 Scenario 3 Total Annual Operating Cost

Operator	Frequency (Peak/ Off-Peak)	Total Annual Operating Cost
PCT	30/30	\$2,086,792.50
	30/60	\$1,785,326.40
	60/60	\$1,176,062.55
RT	30/30	\$1,049,521.35
	30/60	\$897,240.45
	60/60	\$592,701.60

Recommendations

There are multiple different service levels and routes described above, WSP would recommend the following alignments for the following service levels:

- 30-minute frequency: Scenario 3. PCT should also explore the possibility of rerouting the Lincoln Circulator to only not serve the library and reroute the Lincoln/Rocklin/Sierra College Route to serve Downtown Lincoln on every trip.
- 60-minute frequency: Scenario 1. The alignment would allow for the new route to interline with the Lincoln Circulator and the service could be scheduled so there is increased layover for both services which would improve on-time performance for PCT overall.

It would also be more cost efficient for Roseville Transit to operate the service; however, further discussion on PCT's operating cost model that was used in their Short-Range Transit Plan should occur because it is nearly three times higher than RT's vehicle cost per hour.

A-3 RECOMMENDED SOLUTIONS FOR CONGESTED CORRIDORS

Lincoln Express Bus Service

Recommended Solutions for Congested Corridors

Contents

Introduction	5
Route Alignment and Stops	5
Operational Information	7
Transit Priority Measures.....	10
Ridership Estimate.....	12
Capital Funds Needed.....	14
Equity Analysis.....	16
Appendix 1: Transit Priority Measures	18
Bus-on-Shoulders.....	18
Synchronized Phasing.....	18
Queue Jumps	19
Transit Signal Priority	20
Intersections.....	20
Douglas at Sunrise.....	25
Douglas at Santa Clara.....	27
Douglas at Sierra Gardens	29
Douglas at Target.....	31
Douglas at Rocky Ridge	33
Rocky Ridge at Lead Hill.....	35
Eureka at Rocky Ridge	37
Eureka at Sunrise	39
Sunrise at Roseville	41
Roseville at Taylor	43
Roseville at Creekside Ridge	45
Roseville at Galleria.....	47

Map 1 Final Alignment	6
Map 2 City of Roseville Traffic Signal Coordination	19
Map 3 Douglas at Sunrise	26
Map 4 Douglas at Santa Clara	28
Map 5 Douglas at Sierra Gardens	30
Map 6 Douglas at Target	32
Map 7 Douglas at Rocky Ridge	34
Map 8 Rocky Ridge at Lead Hill	36
Map 9 Eureka at Rocky Ridge	38
Map 10 Eureka at Sunrise	40
Map 11 Sunrise at Roseville	42
Map 12 Roseville at Taylor	44
Map 13 Roseville at Creekside Ridge	46
Map 14 Roseville at Galleria	48
 Table 1 Stop Information	 7
Table 2 Preliminary Schedule	8
Table 3 RT Operating Information	9
Table 4 Operating Cost	9
Table 5 Transit Priority Measures	10
Table 6 Intersection Priority Measures	11
Table 7 Estimated Commute Ridership	12
Table 8 All Trips	13
Table 9 Capital Investment	14
Table 10 Recommended Capital Infrastructure	15
Table 11 Equity Analysis	17
Table 12 Douglas at Sunrise Traffic Volumes	25
Table 13 Douglas at Sunrise Transit Priority Measures	26
Table 14 Douglas at Santa Clara Traffic Volumes	27
Table 15 Douglas at Santa Clara Transit Priority Measures	28
Table 16 Douglas at Sierra Gardens Traffic Volumes	29
Table 17 Douglas at Sierra Gardens Transit Priority Measures	30
Table 18 Douglas at Target Traffic Volumes	31
Table 19 Douglas at Target Transit Priority Measures	32
Table 20 Douglas at Rocky Ridge Traffic Volumes	33
Table 21 Douglas at Rocky Ridge Transit Priority Measures	34
Table 22 Rocky Ridge at Lead Hill Traffic Volumes	35
Table 23 Rocky Ridge at Lead Hill Transit Priority Measures	36
Table 24 Eureka at Rocky Ridge Traffic Volumes	37
Table 25 Eureka at Rocky Ridge Transit Priority Measures	38
Table 26 Eureka at Sunrise Traffic Volumes	39
Table 27 Eureka at Sunrise Transit Priority Measures	40
Table 28 Sunrise at Roseville Traffic Volumes	41
Table 29 Sunrise at Roseville Transit Priority Measures	42

<i>Table 30 Roseville at Taylor Traffic Volumes</i>	43
<i>Table 31 Roseville at Taylor Transit Priority Measures</i>	44
<i>Table 32 Roseville at Creekside Ridge Traffic Volumes</i>	45
<i>Table 33 Roseville at Creekside Ridge Transit Priority Measures</i>	46
<i>Table 34 Roseville at Galleria Traffic Volumes</i>	47
<i>Table 35 Roseville at Galleria Transit Priority Measures</i>	48

Introduction

The following information details the route and operations data, transit priority measures, estimated ridership, capital infrastructure needed, and an equity analysis of the Express service that will travel between Lincoln and the SacRT Blue Line Watt/I-80 Station.

Route Alignment and Stops

The final alignment shown in Map 1 was chosen through multiple iterations that were then narrowed down and further refined by PCTPA and the transit operators. The final alignment is designed to provide streamlined service that connects with multiple transit services at the Galleria Transit Center and the LR station and provides service to Sutter Health and Kaiser Permanente in Roseville. The final alignment uses the following turn-by-turn directions:

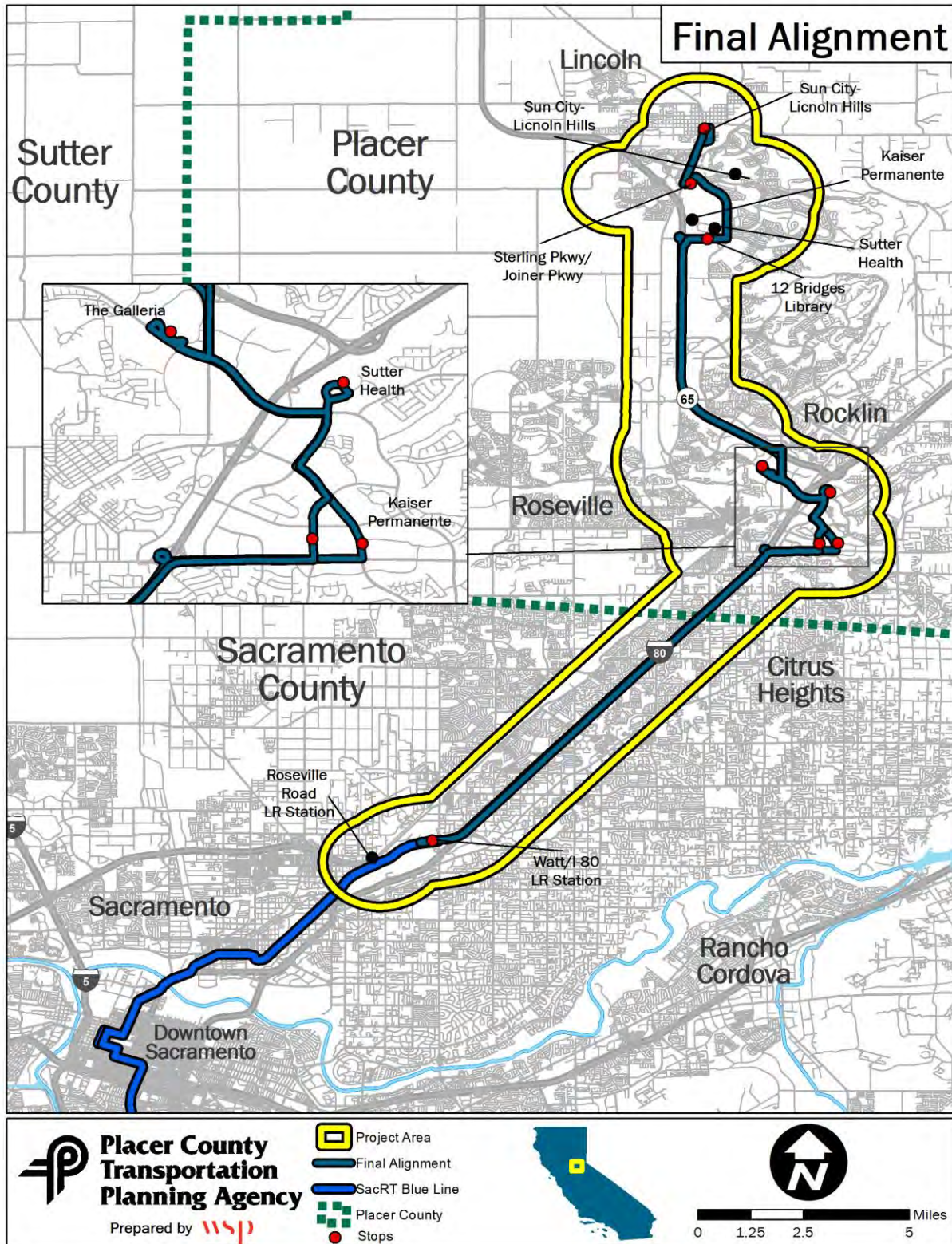
From Lincoln

- Continue on 3rd Street
- Right on E St
- Use first exit at the traffic circle on Gateway Dr
- Left on Lincoln Blvd
- Left on Sterling Pkwy
- Right on E Joiner Pkwy
- Right on Twelve Bridges Dr
- Merge on to Hwy-65 South
- Exit Galleria Blvd South
- Right on Roseville Pkwy
- Right on West Dr
- Right on Galleria Ct
- Right on Reserve Dr
- Left on Roseville Pkwy
- Left N. Sunrise Ave
- Right on Medical Plaza Dr
- Left on Medical Plaza
- Continue on N. Sunrise Ave
- Left on Eureka Rd
- Right on Douglas Dr
- Merge on to I-80 W
- Use the Watt/I-80 offramp to serve the Watt/I-80 LR station

From SacRT's Watt/I-80 LR Station

- Merge on to I-80 E
- Exit Douglas Dr heading East
- Left on Rocky Ride Dr
- Left on to Eureka Rd
- Right on N. Sunrise Ave
- Continue on Medical Plaza Dr
- Left on Medical Plaza
- Continue on N. Sunrise Dr
- Right on Roseville Pkwy
- Right on West Dr
- Right on Galleria Ct
- Right on Reserve Dr
- Left on Roseville Pkwy
- Left on Galleria Blvd
- Left on Hwy-65 North
- Right on Twelve Bridges Dr
- Left on E Joiner Pkwy
- Left on Sterling Pkwy
- Right on Lincoln Blvd
- Right on 3rd Street

Map 1 Final Alignment



The route serves stops in Lincoln, Roseville, and Sacramento County. The final ten stop locations for both directions of the route are listed in the table below and are also shown in Map 1. There are six stops with existing service present, seven of the stops are ADA compliant, and six of the stops have existing benches and shelters.

Table 1 Stop Information

Direction	Stop Location	Jurisdiction	Existing Service at Stop	ADA Compliant	Bench and Shelter Present
Terminal	3 rd St at E St	Lincoln	Yes	Yes	Yes
South	Sterling Pkwy at Sterling Pkwy	Lincoln	Yes	Yes	Yes
North	Sterling Pkwy at Sterling Pkwy	Lincoln	No	No	No
South	Twelve Bridges Dr at Colonnade Dr	Lincoln	No	No	No
North	Twelve Bridges Dr at Colonnade Dr	Lincoln	No	No	No
Both	Galleria Transit Center	Roseville	Yes	Yes	Yes
Both	Sutter Roseville Medical Center	Roseville	Yes	Yes	Yes
South	Rocky Ridge at Kaiser Permanente	Roseville	Yes	Yes	Yes
North	Rocky Ridge at Kaiser Permanente	Roseville	No	Yes	No
Terminal	Watt/I-80 LR Station	Sacramento County	Yes	Yes	Yes

The current recommended stops include two stops on-street along Twelve Bridges Drive to increase the speed of the service. It is still recommended that the route continue on-street and not deviate to use the existing stops because of the limited available time to charge the battery electric buses; however, this could be further refined when the service is implemented with actual runtimes and the assurance that the vehicle will have enough time to replenish the battery at the Galleria.

Operational Information

The route would operate every half hour and provide service for those arriving on the first Blue Line trip to Watt/I-80 at 5:59a. This would allow for customers using the Blue Line to arrive at any of the Roseville Hospitals before 7:00a and allow anyone that is traveling from Roseville/Lincoln to Sacramento to arrive in Downtown Sacramento before 7:00a. The schedule is also designed to arrive at the Galleria Transit Center on the hour and at the half to connect with the multiple services that pulse out of there. The schedule of the start and end trips of the service is shown Table 2.

Table 2 Preliminary Schedule

Southbound		Northbound		Vehicle
Departure from Lincoln	Arrival at Watt/I-80 LR Station	Departure from Watt/I-80 LR Station	Arrival in Lincoln	
5:08	5:59	6:03	6:54	Vehicle 1
5:38	6:29	6:33	7:24	Vehicle 2
6:08	6:59	7:03	7:54	Vehicle 3
6:38	7:29	7:33	8:24	Vehicle 4
7:08	7:59	8:03	8:54	Vehicle 1
7:38	8:29	8:33	9:24	Vehicle 2
8:08	8:59	9:03	9:54	Vehicle 3
8:38	9:29	9:33	10:24	Vehicle 4
9:08	9:59	10:03	10:54	Vehicle 1
9:38	10:29	10:33	11:24	Vehicle 2
10:08	10:59	11:03	11:54	Vehicle 3
10:38	11:29	11:33	12:24	Vehicle 4
11:08	11:59	12:03	12:54	Vehicle 1
11:38	12:29	12:33	13:24	Vehicle 2
12:08	12:59	13:03	13:54	Vehicle 3
12:38	13:29	13:33	14:24	Vehicle 4
13:08	13:59	14:03	14:54	Vehicle 1
13:38	14:29	14:33	15:24	Vehicle 2
14:08	14:59	15:03	15:54	Vehicle 3
14:38	15:29	15:33	16:24	Vehicle 4
15:08	15:59	16:03	16:54	Vehicle 1
15:38	16:29	16:33	17:24	Vehicle 2
16:08	16:59	17:03	17:54	Vehicle 3
16:38	17:29	17:33	18:24	Vehicle 4
17:08	17:59	18:03	18:54	Vehicle 1
17:38	18:29	18:33	19:24	Vehicle 2
18:08	18:59	19:03	19:54	Vehicle 3
19:08	19:59	20:03	20:54	Vehicle 4

Table 3 details the operating information by vehicle for the service and includes the daily and revenue hours and miles. Assuming the service is operated by Roseville Transit, the operating cost is based on

their fully burdened cost per hour of \$121.00. Table 4 details the operating cost per day and estimated cost per year (255 weekdays) with the total yearly cost estimated to be \$1,860,556.50. The travel distance between divisions and the start and of the service is calculated using the division location in Roseville.

Table 3 RT Operating Information

Frequency	Vehicle Block	Pull-Out Time	First Trip Start Time	Last Trip End Time	Pull-in Time	Daily Revenue Hours	Daily Total Hours	Daily Revenue Miles	Daily Total Miles
30/30	1	4:25	4:55	18:52	19:22	14.0	14.95	352.8	386.4
	2	4:55	5:25	19:22	19:52	14.0	14.95	352.8	386.4
	3	5:25	5:55	19:52	20:22	14.0	14.95	352.8	386.4
	4	5:55	6:25	20:52	21:22	14.5	15.45	352.8	386.4
	Total	-	-	-	-	56.3	60.3	1411.2	1545.6

Table 4 Operating Cost

Frequency (Peak/ Off-Peak)	Daily Total Hours	Cost per hour	Daily Total Cost	Total Operating Cost (Assuming weekdays 255 days)
30/30	60.3	\$121.00	\$7,296.30	\$1,860,556.50

Transit Priority Measures

There are various transit priority measures available for implementation for the express service traveling between Lincoln and SacRT's Blue Line. Transit priority measures can be combined with each other to increase the overall benefit of the service (i.e. queue jumps with transit signal priority to increase the speed of the service). The table below summarizes the options, cost, and what is needed.

Table 5 Transit Priority Measures

Measure	Description	Benefits other transit service?	What is needed to implement the service?	Cost
Synchronized Signal Phasing or intelligent Transportation System (ITS)	This would involve emitters from coordinated traffic signal phasing which is designed to increase throughput on corridors, by phasing signals so that vehicles would have continuous greens.	No	<ul style="list-style-type: none"> Recalibrating light phases to ensure that vehicles will have a continuous green light throughout the corridor 	<ul style="list-style-type: none"> Free
Transit Signal Priority	This involves communication between the vehicle and the signal to either extend a green, or trigger the green light in the desired direction	No (unless they also have emitters)	<ul style="list-style-type: none"> Transponders on vehicles New Signal Systems or recalibration of existing signals to receive the signal from the vehicles 	<ul style="list-style-type: none"> Vehicle Emitters: \$1,200 Signal Systems: \$1,200
Queue Jumps	Queue jumps allow for transit vehicles to cut ahead of a line of cars to ensure that they will get through the light and will gain at least a few seconds of increased travel speed.	Yes	<ul style="list-style-type: none"> Restriping of lanes 10.5' lane width at intersections Transit signal and addition of a transit phase in the signal 	<ul style="list-style-type: none"> Striping: \$2,400 per intersection Signals: \$18,000

The implementation of the priority measures will have little or no impact on reducing operating cost. For any significant savings, the measures would need to cumulatively reduce travel time by nearly 30 minutes, however, they are an important tool to ensure that additional vehicles will not be required and to improve the quality of service from the perspective of the customer.

Because of the limited stops of the service, a very simple and cost-effective solution to improve speed would be the synchronized phasing of lights, or transit signal priority. Since the express vehicle will not be pulling over to pick-up or drop-off customers, it should travel as fast as the general traffic in order to remain competitive.

Queue jumps only slightly speed up the express service, but they would be available to all transit services operating along the roadway and thus would benefit other routes as well. Queue jumps will also help ensure that transit vehicles that are stopped at red signals will be able to pass through the signal of congested intersections.

Based off the information in [Appendix 1: Transit Priority Measures](#), it is recommended that PCTPA implement the listed options in Table 6 at each of the intersections. Synchronized phasing is already in effect, the implementation would be to monitor the impacts to transit and adjust if possible.

Table 6 Intersection Priority Measures

Intersection	Synchronized Phasing	Transit Signal Priority	Queue Jumps
Douglas at Sunrise	Yes	Optional	Optional
Douglas at Santa Clara	Yes	Optional	Optional
Douglas at Sierra Garden	Yes	Optional	Optional
Douglas at Target	Yes	Optional	Optional
Rocky Ridge at Douglas	N/A	No	No
Rocky Ridge at Lead Hill	No	No	No
Rocky Ridge at Eureka	N/A	No	No
Eureka at Sunrise	N/A	No	No
Sunrise at Roseville	Yes	No	No
Roseville at Taylor	N/A	Yes	Yes
Roseville at Creekside Ridge	Yes	Yes	Yes
Roseville at Galleria	Yes	Optional	Optional

Ridership Estimate

The following details a very preliminary estimate of ridership for the service.

Based off the 2018 5-year American Community Surveys (Table S0801), there is a transit mode share of 1.2% for Placer County and 2.6% for Sacramento county, these numbers will be used to estimate the number of customers that this route will attract.

The following table details the potential customers (from the Longitudinal Employer-Household Dynamics Origin-Destination Employment Statistics Data from 2017) that live and work near SacRT's Blue Line and the stops of the express route including customers that could travel to a park & ride at the Twelve Bridges Library. It is estimated that 82 people would use the service between home and work which would result in a total of 164 unlinked passenger trips. It should be noted that this number is a very preliminary estimate and could be much greater due to other factors like the development of the Sacramento Railyards and development related to the Sunset Area Plan in Lincoln.

Table 7 Estimated Commute Ridership

Customers	Home County	Job County	Jobs	Estimated Transit Ridership Based on Transit Mode-Share of Home County
Park & Ride Customers	Placer County	Placer County	593	7
Park & Ride Customers	Placer County	Sacramento County	339	9
Near Transit Service	Placer County	Placer County	2,265	27
Near Transit Service	Placer County	Sacramento County	1,203	31
Near Transit Service	Sacramento County	Placer County	291	8
Total			4,691	82

In addition to the employment trips, there are around 50 people that board the existing Auburn to Light Rail service to Watt/I-80 at the Galleria transit center. Because of the frequency of the new express service, customers that use the existing Auburn to Light Rail route will migrate over because of the additional service to the shared destination. A conservative estimate would be about 25% of ridership that board at the Galleria would shift to the new service because of increased options for a total of 12.5 customers or **25** unlinked passenger trips a day. The estimate basis was selected because the Auburn to Light Rail route does not serve the Louis and Orlando Transit Center, nor would this service; customers will usually board the vehicle that arrives first if there are two routes going to the destination they want (SacRT's Blue Line). A conservative ridership estimation approach was taken because customers now have increased options to travel to Sutter Roseville Medical Center, Kaiser Permanente Roseville Medical Center, and the shopping center at the corner of Douglas Blvd and Rocky Ridge Rd. The boardings at the Galleria at the stop level are from the most recent Placer County Short Range Transit Plan.

In addition to the home-work trips in the project area and the existing transit ridership that would move over to the service, there are a total of 18,311 customers that are at retirement age or high school/college age that would be able to use this service to travel between Lincoln and Roseville and Placer County and Sacramento for educational, medical, or recreational trips (that would not be included in the employment analysis above) for a total of 219 customers (based off the transit mode share) and **438** unlinked passenger trips.

The total estimated unlinked passenger trips is **627** for the service.

Table 8 All Trips

Trip Type	Trips
Employment Trips	164
Existing Transit Trips	25
Other Trips	438
Total Trips	627

Capital Funds Needed

Table 9 summarizes the fully built out capital funds needed along the corridor for transit priority measures and stop upgrades where there are not existing stops. Not all of these improvements are needed, but they represent a fully built out transit priority system cost. The design and build of ADA compliant stops could be reduced if there are agency staff able to design the bus stops and public works staff to construct. The vehicle cost estimates were provided by PCTPA, and the queue jump and TSP investments are from TCRP's Bus and Rail Transit Preferential Treatments in Mixed Traffic (2010), adjusted for inflation. The cost of designing and building ADA compliant bus stops is one of the most variable costs in the industry because it depends on the improvements that would need to be made. TriMet, for example, spent over \$30,000 to design, build, and install stop improvements in 2009. Similarly GoDurham transit estimates between \$9,000-\$30,000 to add ADA pads and accessible paths and \$15,000 for shelters and benches, and the TransitCenter estimates between \$2,000 and \$15,000 to design, size, and place improvements. The TransitCenter's high estimate of \$15,000 was used to identify a cost for the design and build of ADA Compliant stops. The City of Roseville stated that the traffic signals used by the service are all equipped with the equipment to receive TSP signals from and the emitters for the vehicles would only need to be purchased.

Table 9 Capital Investment

Capital Investment	Unit Cost	Units	Total Cost
Vehicles	\$1,000,000	5	\$5,000,000
On Route Charging Station (Galleria)	1,000,000	2	\$2,000,000
Queue Jump Striping	\$2,400	14	\$33,600
Queue Jump Signals (intersections)	\$18,000	14	\$252,000
TSP Emitters (Vehicles)	\$1,200	5	\$6,000
Coordinated Signals	Free	N/A	N/A
Design and Build ADA Compliant Bus Stops	\$15,000	3	\$45,000
Bench and Shelter	\$15,000	4	\$60,000
Total			\$7,396,600

A more refined analysis of tactical solutions to improve the transit service is shown in Table 10. The majority of the capital costs are from the addition of the BEB and chargers. The only intersections included for queue jumps are on Roseville Parkway where the right-turn lane could be used. In addition to Roseville Parkway, there is the possibility of exploring the use of the left turn lane on Douglas Blvd as a queue jump to bypass traffic.; however, this is only needed in in the westbound lane because the ramp meter from I-80 West causes vehicles to back up in the right lanes on Douglas. This presents some operational concerns because the vehicle would need to position itself in the far-left lane to use the queue jump but then merge over to the right lane to be in the correct lane to merge on the freeway if the signal is green.

Table 10 Recommended Capital Infrastructure

Capital Investment	Unit Cost	Units	Total Cost
Vehicles	\$1,000,000	5	\$5,000,000
On Route Charging Station (Galleria)	1,000,000	2	\$2,000,000
Queue Jump Striping	\$2,400	4	\$9,600
Queue Jump Signals (intersections)	\$18,000	4	\$72,000
TSP Emitters (Vehicles)	\$1,200	5	\$6,000
Coordinated Signals	Free	N/A	N/A
Design and Build ADA Compliant Bus Stops	\$15,000	3	\$45,000
Bench and Shelter	\$15,000	4	\$60,000
Total			\$7,192,600

Equity Analysis

Although not required because Roseville Transit and Placer County Transit do not operate more than 50 vehicles in maximum service, an equity analysis was conducted on the new service to identify any potential adverse impacts to low-income or minority populations.

For this analysis, the 5-year estimates dataset from the American Community Survey (ACS) 2014-2018 is used for both the minority and low-income populations. This dataset is currently the most recent available from the US Census Bureau.

The Census block group level was chosen for both minority and low-income analyses, as it was the smallest geographic level available from the American Community Survey.

To conduct the analysis for minority populations, the table for Hispanic or Latino Origin by Race from ACS 2014-2018 (5-year estimates). The total minority population in each Census block group was calculated by subtracting the “White alone – Not Hispanic or Latino” population from the total population. This is consistent with the SACOG’s definition of minority persons.

To conduct the analysis for low-income populations, the Ratio of Income to Poverty Level in the Past 12 Months from ACS 2014-2018 (5-year estimates) was used. The total population in each Census block group at 200% of the poverty level was calculated by subtracting the categories below the ratio of 2.0 from the total population. This is consistent with SACOG’s policy with those earning less than 200% of the federal poverty level considered low-income. The total population in this dataset is lower than the total population in the minority dataset because the “universe” for which the sample is taken from is the “population for whom poverty status is determined,” which does not include group quarters or college campuses.

Table 11 summarizes the low-income and minority block groups over four geographic areas described in more detail below.

- Express Route Block Groups: These are the block groups that are within ¼-miles of the Express Route alignment
- Express Route and Blue Line Block Groups: These are the block groups within ¼-miles of the Express Route alignment and SacRT’s Blue Line. This data is included because the Express Route is designed to feed to and from SacRT’s Blue Line and is added because the service will have benefits outside the communities directly adjacent to the route because low-income and minority populations that live along SacRT’s Blue Line can now connect with employment services in Roseville.
- Placer County Block Groups: These are the block groups within Placer County
- The SACOG Area Block Groups: These are the block groups within the SACOG area

The Placer County and SACOG area Block Groups are shown to create a baseline to compare the percent of low-income and minority within different areas. The minority population percentage potentially served by the Express Route is greater than the minority populations in Placer County and the SACOG area, showing a benefit to minority communities. The Express Route will only serve 26.3% low-income populations compared to SACOG's area of 31.3%, but that is still less than a 5% benefit to non-low-income populations. When compared to the low-income percentage of Placer County, the low-income served is nearly 7% greater by the new service and when factoring in the low-income populations that have access to the service from SacRT's Blue Line, the percentage of low-income served increases to 37.1%.

Table 11 Equity Analysis

Area	Total Race and Ethnicity Populations	Minority Populations	% Minority	Total Income Populations	Low-Income Populations	% Low-Income
Express Route Block Groups	234,071	83,386	35.6%	231,995	60,929	26.3%
Express Route and Blue Line Block Groups	453,092	239,086	52.3%	447,394	166,028	37.1%
Placer County Block Groups	443,814	122,517	27.6%	440,231	85,699	19.5%
SACOG Area Block Groups	2,463,103	1,168,105	31.3%	2,427,014	759,685	31.3%

Appendix 1: Transit Priority Measures

The analysis of transit priority measures focused on arterial streets in the City of Roseville. The relatively low residential and employment density in the Lincoln did not appear to currently warrant transit priority measures, but this could change as increased development occurs near Twelve Bridges Dr. A description of the measure looked at for the service is provided below. There is also an analysis done by intersection for transit signal priority and queue jumps.

Bus-on-Shoulders

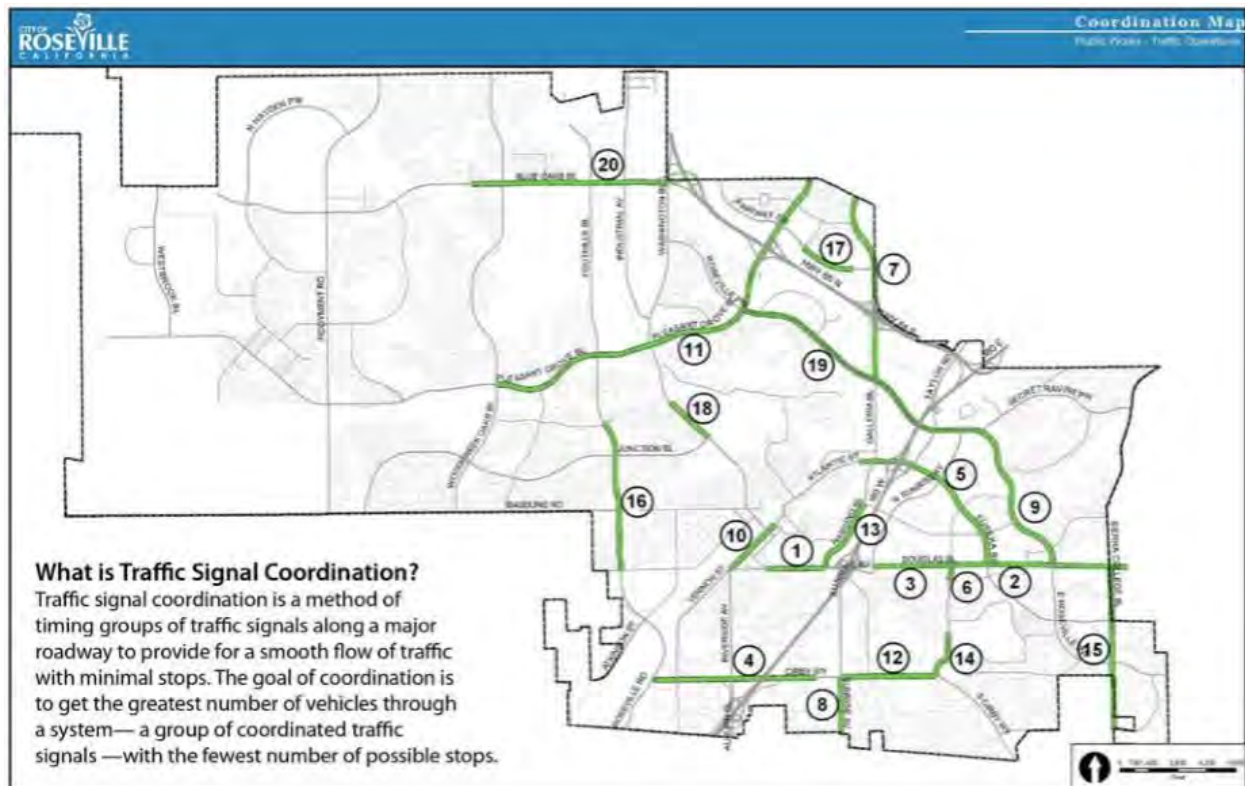
There is the possibility of implementing bus-on-shoulders (BOS) with nearly 14 miles of freeway travel in each direction for the service, but in reviewing Concept of Operations for SANDAG's Bus on Shoulder Project: SR-94 and I-805 and Santa Cruz County Regional Transportation's State Route 1 Auxiliary Lane Bus-On Shoulder there would be little benefit to the Lincoln Express Service. Transit vehicles are only allowed to use the shoulder lanes when vehicle traffic is below 35 MPH. Vehicles are unable to exceed 35 MPH in the SANDAG Con-Ops and 40 MPH in the Santa Cruz Con-Ops when on the shoulders. The MPH travel time for the Express Service is estimated to travel above 35 MPH on the freeway segments which would mean that the shoulder lanes would only be used sparingly, if at all.

The location of the ingress and egress for the Watt/I-80 Light Rail station would also make it difficult to implement BOS because the transit vehicles must enter and exit the station in the lane on the far left of the freeway which means it would need to quickly merge from the shoulder lane to the fast lane and vice versa.

Synchronized Phasing

Synchronized phasing is a passive version of transit signal priority. This synchronizes traffic signals to increase vehicle throughput. Roseville currently coordinates traffic signals along Douglas Blvd, Roseville Pkwy, and Eureka Rd, two primary streets the express service travels on another that the vehicle turns in and off of. With the limited stops, the Express Service benefits greatly from synchronization because there are no stops on Douglas Blvd or Roseville Pkwy and the vehicle should travel nearly as fast as a general traffic vehicle. This is a cost-effective alternative to transit signal priority. The existing implementation of synchronized phasing presents difficulties in implementing and/or the effectiveness of active transit signal priority when the transit vehicle is turning on and off one of the synchronized corridors. A map of Roseville's traffic signal coordinated corridors is shown in [Map 2](#).

Map 2 City of Roseville Traffic Signal Coordination



ID	Corridor	Limits	ID	Corridor	Limits
1	Douglas Blvd	Judah St to Harding Blvd	11	Pleasant Grove Blvd	Woodcreek Oaks to Highland Park Dr
2	Douglas Blvd	Rocky Ridge Dr to Cavitt Stallman Rd	12	Cirby Way	Sunrise Ave to Rocky Ridge Dr
3	Douglas Blvd	Sunrise Ave to Rocky Ridge Dr	13	Harding Blvd	Douglas Blvd to Lead Hill Blvd
4	Cirby Way	Foothills Blvd to San Simeon Dr	14	Rocky Ridge Dr	Cirby Way to Maidu Dr
5	Eureka Rd	Wills Rd to Douglas Blvd	15	Sierra College Blvd	Douglas Blvd to Old Auburn Rd
6	Rocky Ridge Dr	Douglas Blvd to Professional Dr	16	Foothills Blvd	McAnally Dr to Vineyard Rd
7	Galleria Blvd	Roseville Pkwy to Highland Park Dr	17	Fairway Dr	Central Park Dr to Five Star Dr
8	Sunrise Ave	Cirby Way to Sandringham Way	18	Washington Blvd	Junction Blvd to Sawtell Rd
9	Roseville Pkwy	Secret Ravine to Douglas Blvd	19	Roseville Pkwy	Pleasant Grove to Secret Ravine Pkwy
10	Vernon St	Lincoln St to Douglas Blvd	20	Blue Oaks Blvd	Washington Blvd to Diamond Creek Blvd

Source: City of Roseville

Queue Jumps

Queue jumps allow for transit vehicles to get ahead of traffic at intersections by either utilizing an existing turning lane or a transit only lane that the transit vehicle would use. If it is a transit only lane, the vehicle can pull up to the start of the intersection. If it is an existing turn lane, the vehicle uses the right turn lane of the intersection, the turning vehicles are cleared from the intersection with a green arrow and then the transit vehicle can then pull to the start of the intersection and then proceed once given the signal. For the express service, it would be most effective to have a transit specific signal phase that would allow for the transit vehicle to get a head of traffic so that they do not need to merge into the travel lane. The transit vehicles would then avoid potential conflicts between general traffic vehicles. This would require restriping of roadways and a new traffic signal installed at all intersections with queue jumps. TCRP's Bus and Rail Transit Preferential Treatments in Mixed Traffic (2010) estimates that restriping can cost up to \$2,000 (\$2,400 adjusted for inflation) per intersection and \$15,000 (\$18,000 adjusted for inflation) for the signal upgrades. The same report estimates a time savings between 5 second and 20 seconds. Although the time savings are minimal, it also helps the vehicle maintain the

schedule and if queue jumps are implemented at the 7 intersections possible. A rough estimate of the measure could lead to a time savings between 1 min and 10 seconds and 4 minutes and 40 seconds for each round trip.

Transit Signal Priority

Transit Signal Priority (TSP) uses equipment on the vehicle and at the signal control box to provide communication between the two. TSP is primarily set up to provide either unconditional requests to change a signal, only when a vehicle is running behind schedule, or to extend signals if the vehicle is approaching. This would require equipment on the vehicle and at the intersection. TCRP's Bus and Rail Transit Preferential Treatments in Mixed Traffic (2010) estimates that the optical TSP system costs \$10,000 (12,000 adjusted for inflation) per intersection and \$1,000 (\$1,200) per vehicle. The same report mentioned a time savings of 2 – 18%. Conservatively, TSP could save 2 minutes for each round trip if implemented on all intersections; however, further study would be needed to see the potential impacts on the existing synchronized signals.

Intersections

The follow details the intersections traffic volumes, transit priority measures available, and recommended implementations. The follow charts (Charts 1-4) detail the traffic volumes in the direction of the service by intersection and by intersection and lanes. The information is from City of Roseville's Turning Movement by Volume Report taken from the month of October and averaged by weekday hour between 6:00a and 6:59p. Based off the traffic volumes, the intersections listed below have an increased possibility of congestion and would benefit from queue jump implementation, this is consistent when looking at average volume by hour through the intersection and average volume by lanes in the intersection.

- Douglas at Sunrise (both direction)
- Douglas at Santa Clara (both direction)
- Douglas at Sierra Gardens (both direction)
- Douglas at Target (both directions)
- E Roseville at Taylor (both directions)
- E Roseville at Creekside Ridge (both directions)
- E Roseville at Galleria (both directions)

Chart 1 Northbound Trip Directions Traffic by Volume

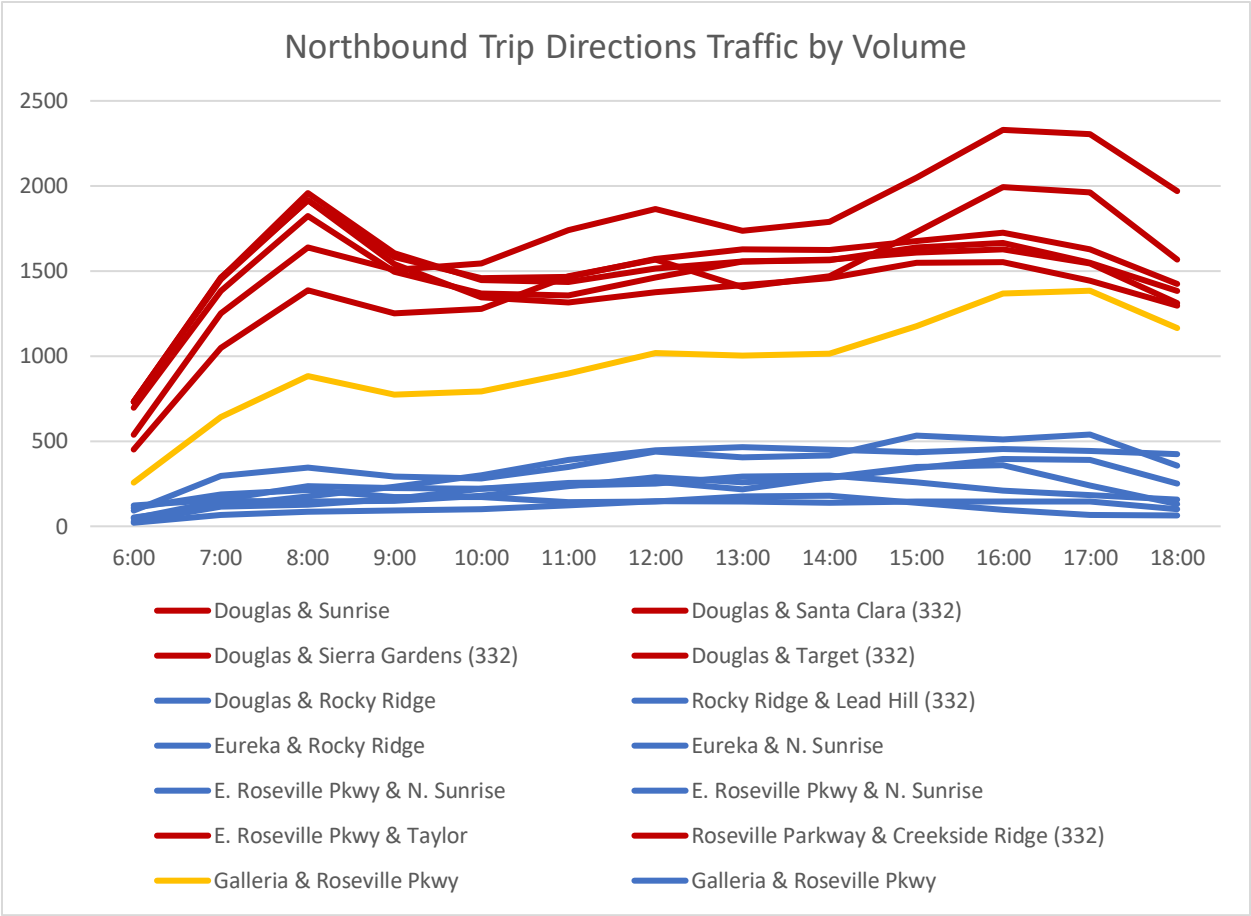


Chart 2 Northbound Trip Direction Traffic Volume by Intersection Lanes

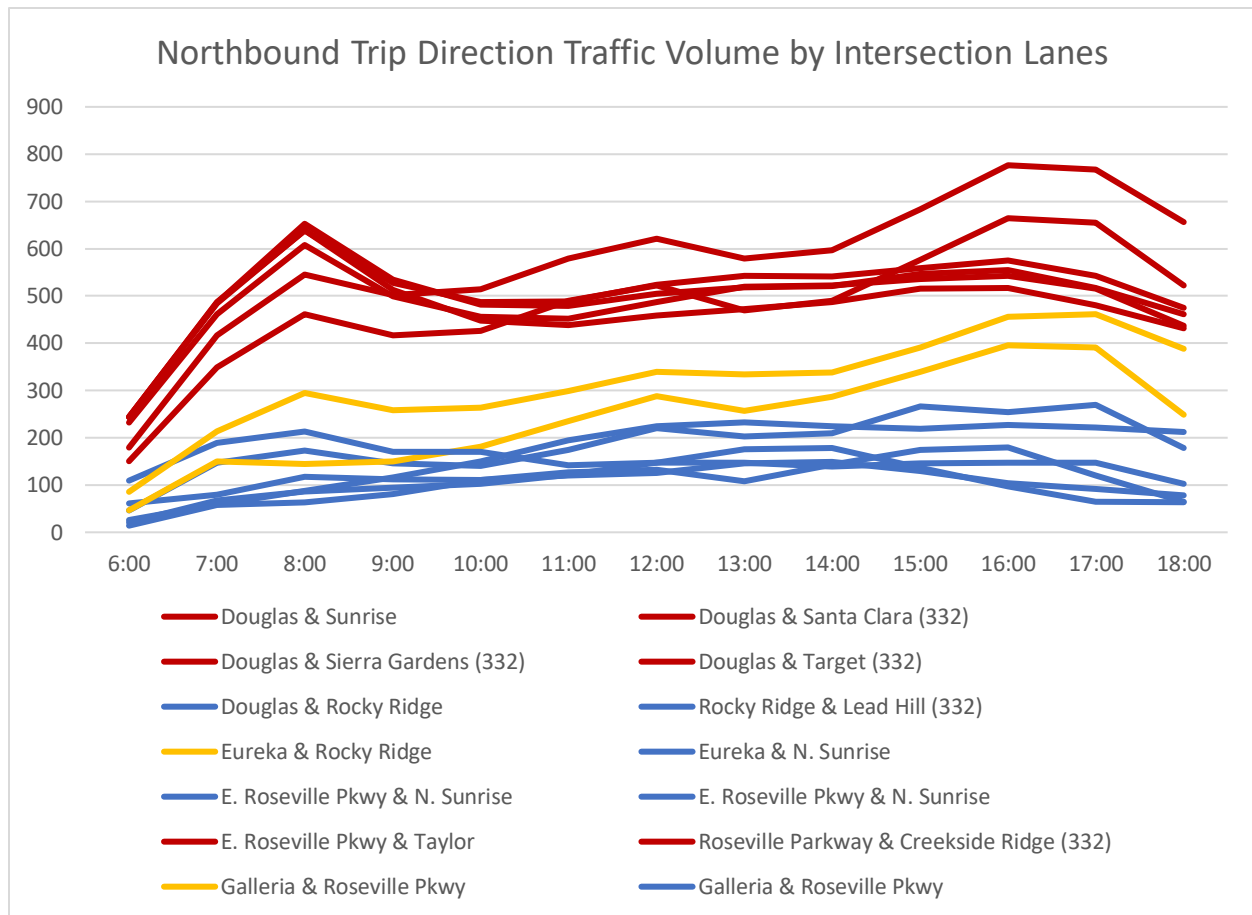


Chart 3 Southbound Trip Direction Traffic Volume by Intersection

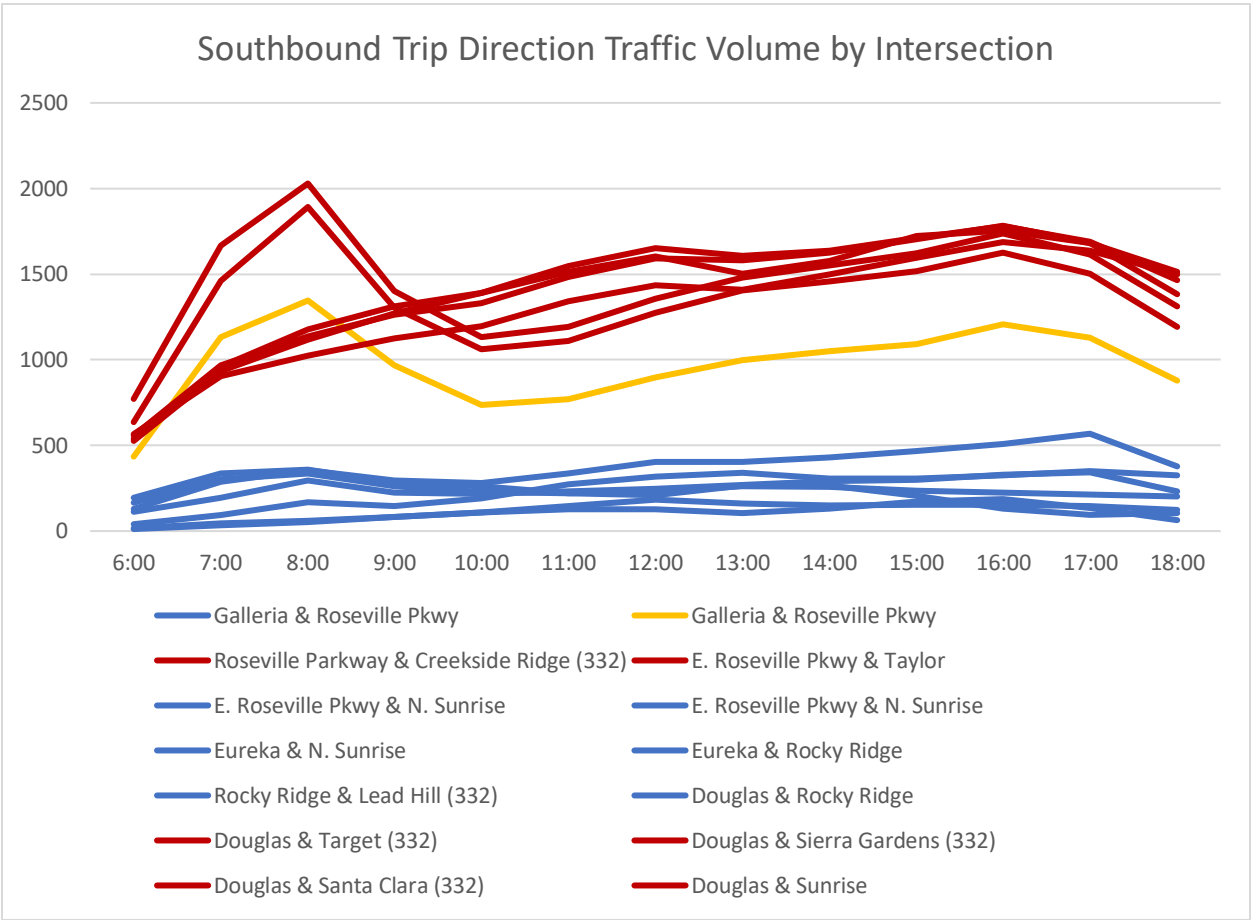
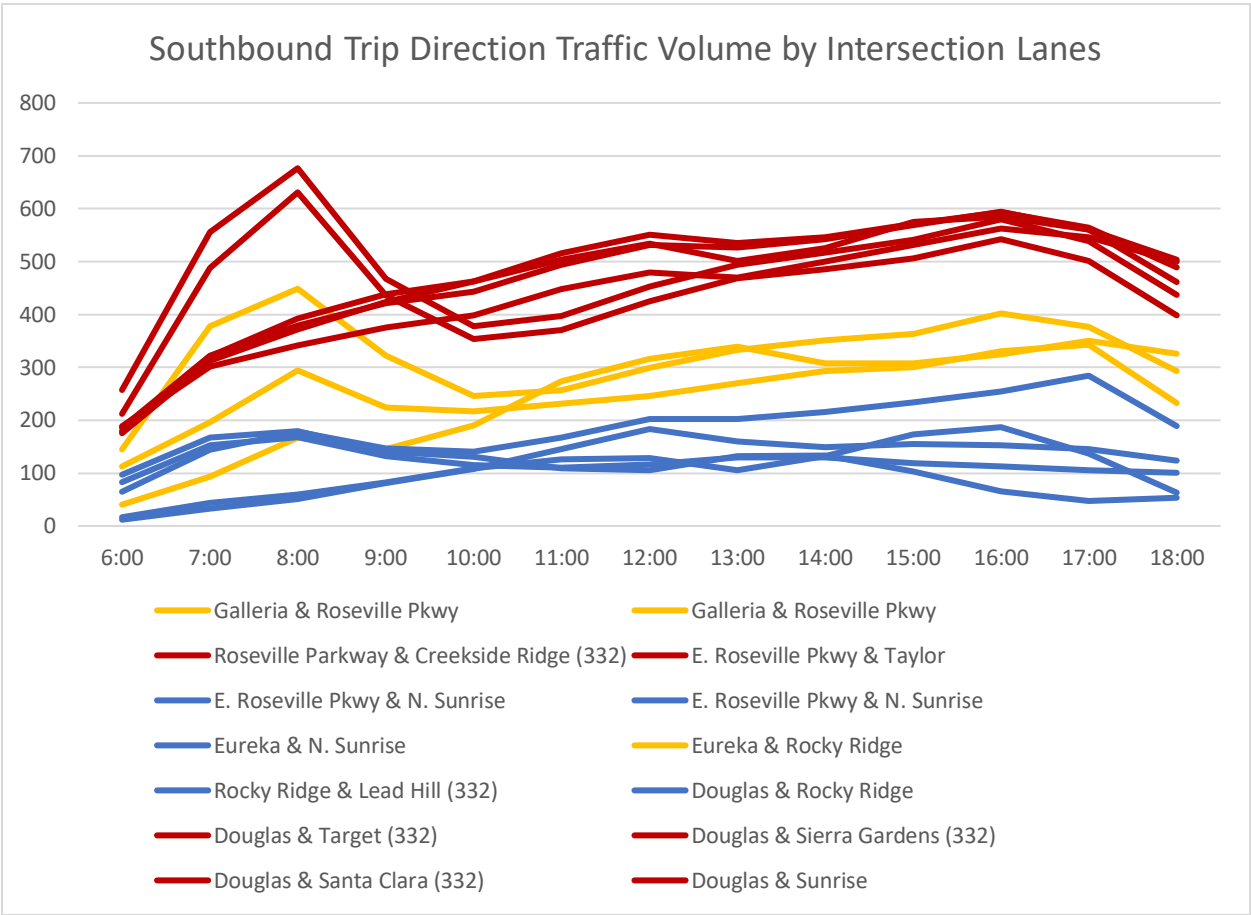


Chart 4 Southbound Trip Direction Traffic Volume by Intersection Lanes



Douglas at Sunrise

Douglas at Sunrise is a highly congested intersection in both direction with traffic volumes over 1,000 vehicles per hour throughout the day. Douglas at Sunrise has six lanes in each direction with the eastbound direction spanning 69 feet and the westbound direction 65.5 feet. Queue jump lanes need at least 10.5 feet to accommodate a transit vehicle. There is not enough room for a new lane, but the existing turn lanes in each direction can be utilized for queue jumps, additional signaling and restriping would be required.

Because this is on a coordinated signals corridor, it is not recommended for TSP.

Table 12 Douglas at Sunrise Traffic Volumes

Direction-Movement	Trip Direction	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
East-Left		152	339	386	376	359	374	406	396	382	385	399	325	268
East-Right		67	136	207	187	159	164	174	184	182	187	160	155	131
East-Thru	North	732	1,452	1,917	1,540	1,345	1,314	1,377	1,418	1,460	1,547	1,552	1,442	1,296
North-Left		96	139	193	240	222	261	285	270	309	322	342	324	249
North-Right		46	86	141	163	182	210	246	225	205	194	195	178	147
North-Thru		125	308	355	355	352	378	404	386	374	397	406	361	302
South-Left		15	35	64	85	98	119	135	129	113	115	120	107	92
South-Right		60	110	176	255	312	368	406	393	405	459	561	556	404
South-Thru		14	36	65	91	105	129	149	140	120	122	126	115	98
West-Left		30	84	123	171	203	229	267	271	252	248	236	208	185
West-Right		31	69	97	119	144	161	182	183	168	154	148	127	130
West-Thru	South	566	905	1,024	1,125	1,194	1,343	1,436	1,407	1,499	1,594	1,687	1,637	1,499
East-Left		152	339	386	376	359	374	406	396	382	385	399	325	268

Map 3 Douglas at Sunrise

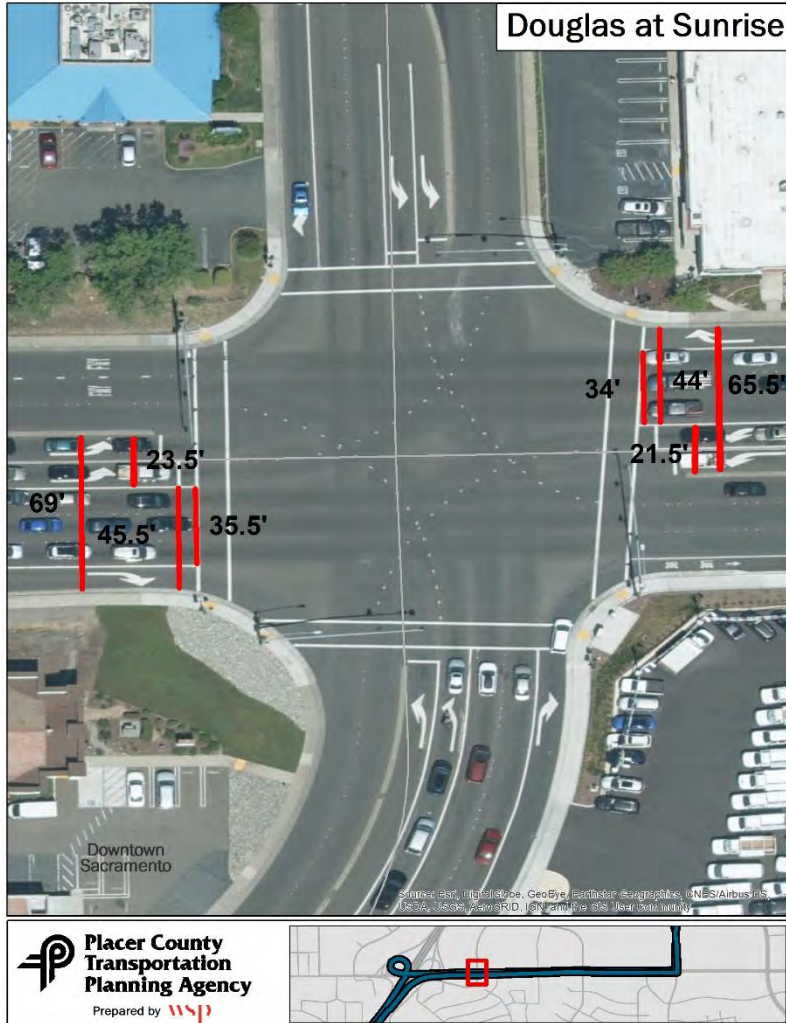


Table 13 Douglas at Sunrise Transit Priority Measures

Measure	Able to be Implemented	Recommended to be Implemented
Transit Signal Priority	Yes	Optional
Queue Jumps	Yes	Optional

Douglas at Santa Clara

Douglas at Santa Clara is a highly congested intersection in both direction with traffic volumes over 1,000 vehicles per hour throughout the day. Douglas at Santa Clara has four lanes in each direction with the eastbound direction spanning 55 feet and the westbound direction 53.5 feet. Queue jump lanes need at least 10.5 feet to accommodate a transit vehicle. There are no existing turn lanes and the lanes would need to be restriped, but there is enough width for five lanes with an average of at least 10.5 feet in each direction at the intersection. Additional signaling and restriping would be required.

Because this is on a coordinated signals corridor, it is not recommended for TSP.

Table 14 Douglas at Santa Clara Traffic Volumes

Direction-Movement	Trip Direction	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
East-Left		32	55	91	138	140	163	189	186	157	148	141	113	91
East-Right		12	25	32	28	26	26	28	28	28	30	30	29	26
East-Thru	North	730	1,457	1,958	1,604	1,445	1,437	1,513	1,556	1,563	1,638	1,666	1,550	1,385
North-Left		20	23	28	35	40	44	43	41	40	47	48	41	37
North-Right		23	33	52	66	65	72	81	74	71	82	83	82	56
North-Thru		10	12	14	18	21	23	23	21	21	24	25	21	19
South-Left		10	24	44	67	94	123	164	172	156	148	150	146	101
South-Right		10	26	36	68	101	132	162	159	162	146	147	141	104
South-Thru		3	8	13	20	28	36	45	46	44	43	46	45	30
West-Left		6	19	31	40	46	50	63	61	50	54	54	53	46
West-Right		16	24	27	31	34	36	37	37	36	36	35	33	34
West-Thru	South	558	966	1,136	1,263	1,330	1,482	1,593	1,580	1,627	1,705	1,783	1,682	1,512

Map 4 Douglas at Santa Clara



Table 15 Douglas at Santa Clara Transit Priority Measures

Measure	Able to be Implemented	Recommended to be Implemented
Transit Signal Priority	Yes	Optional
Queue Jumps	Yes	Optional

Douglas at Sierra Gardens

Douglas at Sierra Gardens is a highly congested intersection in both direction with traffic volumes over 1,000 vehicles per hour throughout the day. Douglas at Sierra Gardens has four lanes in each direction with each direction spanning around 52.5 feet. Queue jump lanes need at least 10.5 feet to accommodate a transit vehicle. There are no existing turn lanes and the lanes would need to be restriped, but there is enough width for five lanes with an average of at least 10.5 feet in each direction at the intersection. Additional signaling and restriping would be required.

Because this is on a coordinated signals corridor, it is not recommended for TSP.

Table 16 Douglas at Sierra Gardens Traffic Volumes

Direction-Movement	Trip Direction	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
East-Left		6	7	23	45	47	52	55	62	55	58	53	50	39
East-Right		15	30	39	34	33	35	38	38	38	39	41	39	34
East-Thru	North	732	1,463	1,915	1,584	1,460	1,464	1,570	1,626	1,625	1,676	1,724	1,627	1,423
North-Left		52	99	129	157	120	131	168	171	176	202	191	171	147
North-Right		14	27	31	41	31	29	39	36	41	47	48	41	36
North-Thru		15	29	33	44	33	31	42	39	44	51	52	44	39
South-Left		8	17	48	79	110	149	189	195	184	176	195	183	123
South-Right		2	4	12	15	19	25	32	31	31	32	35	34	24
South-Thru		1	3	8	11	14	19	24	23	23	24	26	25	18
West-Left		3	10	30	31	24	29	43	38	37	48	45	52	37
West-Right		14	22	26	32	36	40	42	41	40	39	39	36	35
West-Thru	South	526	935	1,116	1,271	1,389	1,546	1,650	1,606	1,637	1,713	1,780	1,691	1,466

Map 5 Douglas at Sierra Gardens

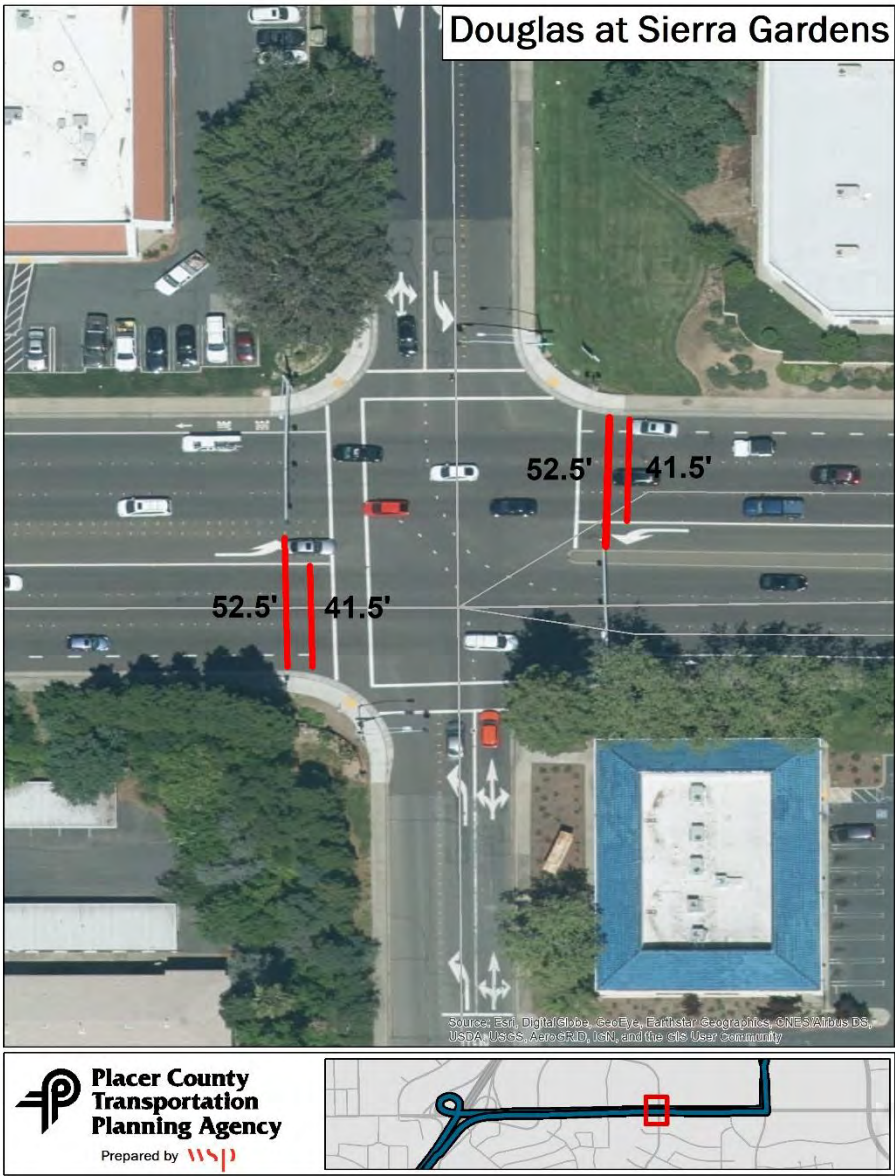


Table 17 Douglas at Sierra Gardens Transit Priority Measures

Measure	Able to be Implemented	Recommended to be Implemented
Transit Signal Priority	Yes	Optional
Queue Jumps	Yes	Optional

Douglas at Target

Douglas at Target is a highly congested intersection in both direction with traffic volumes over 1,000 vehicles per hour throughout the day. Douglas at Target has four lanes in each direction with the east direction spanning 53.5 feet and the west direction spanning 52.5 feet. Queue jump lanes need at least 10.5 feet to accommodate a transit vehicle. There are no existing turn lanes and the lanes would need to be restriped, this would not be an issue in the east direction because there would still be an average of at least 10.5 feet per lane. The west direction would require an average lane width less than 10.5 feet, but the queue jump could still be implemented. Additional signaling and restriping would be required.

Because this is on a coordinated signals corridor, it is not recommended for TSP.

Table 18 Douglas at Target Traffic Volumes

Direction-Movement	Trip Direction	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
East-Left		17	32	63	91	96	126	157	142	122	130	130	135	124
East-Right		14	29	36	32	31	32	34	36	35	37	38	37	31
East-Thru	North	697	1,382	1,823	1,496	1,367	1,357	1,460	1,557	1,566	1,608	1,627	1,546	1,311
North-Left		3	5	6	14	50	74	106	115	107	93	85	79	80
North-Right		2	5	11	15	36	56	91	103	77	66	60	59	54
North-Thru		1	2	4	5	13	20	32	36	27	23	21	21	19
South-Left		9	13	21	27	43	64	89	97	83	81	85	90	73
South-Right		9	13	23	41	64	80	99	105	97	88	89	89	97
South-Thru		1	1	2	4	6	8	10	10	10	9	9	9	10
West-Left		3	7	14	29	57	90	123	102	75	70	69	73	61
West-Right		5	7	9	11	12	13	13	12	12	13	13	12	11
West-Thru	South	538	962	1,176	1,313	1,389	1,512	1,601	1,504	1,576	1,723	1,754	1,681	1,384

Map 6 Douglas at Target

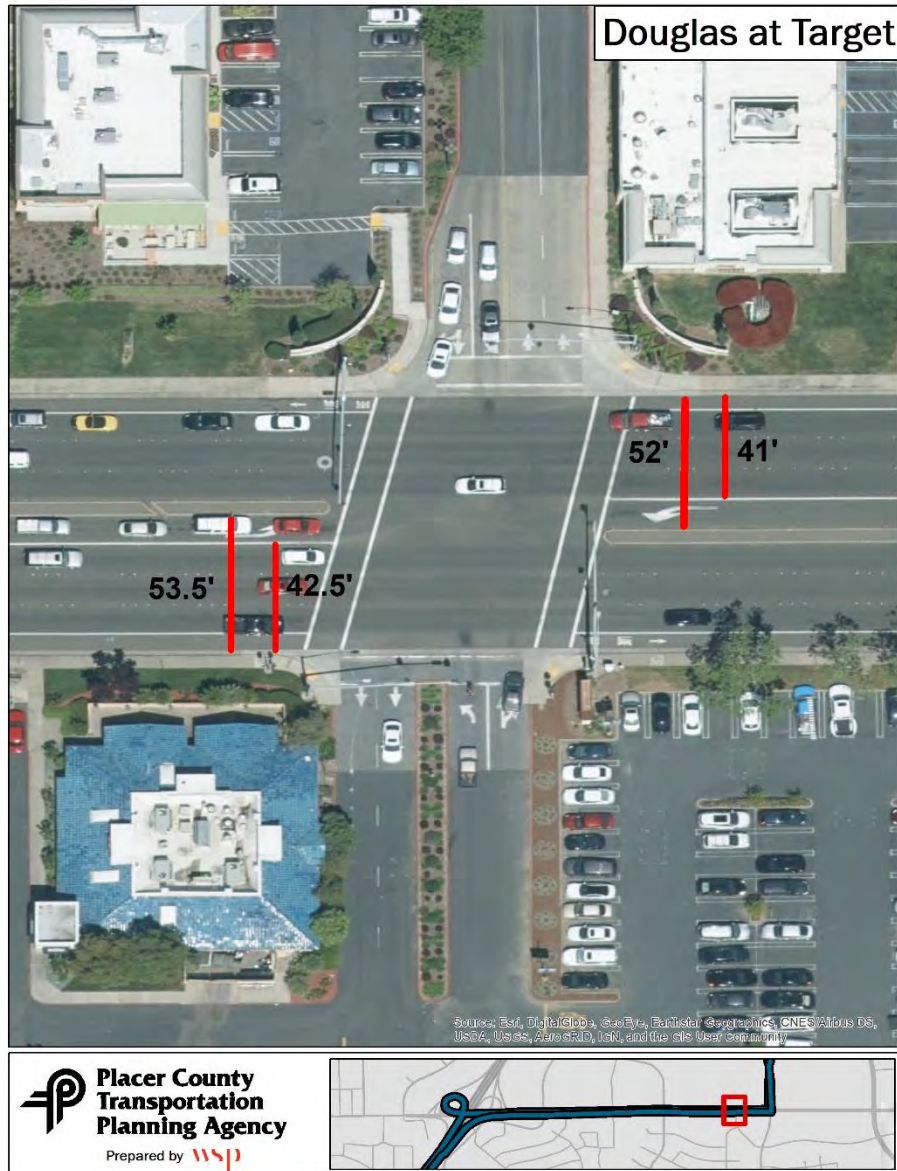


Table 19 Douglas at Target Transit Priority Measures

Measure	Able to be Implemented	Recommended to be Implemented
Transit Signal Priority	Yes	Optional
Queue Jumps	Yes	Optional

Douglas at Rocky Ridge

Douglas at Rocky Ridge is not a highly congested intersection in both directions of travel. Because the vehicle is turning in both directions, the intersection is not recommended for queue jumps. There was a change in the alignment where the vehicle now turns on Eureka from Douglas Blvd which has a dedicated turn lane where no improvements are warranted.

TSP is possible, but it would only be needed in Northbound trip direction and the service would need to be coordinated with the City of Roseville's coordinated signals system if implemented.

Table 20 Douglas at Rocky Ridge Traffic Volumes

Direction-Movement	Trip Direction	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
East-Left	North	47	150	144	150	180	235	288	257	287	340	396	391	249
East-Right		2	5	9	13	16	21	30	31	25	22	21	27	23
East-Thru		63	161	234	205	183	236	319	309	294	361	330	363	253
North-Left		16	22	34	37	38	54	80	62	53	49	52	61	50
North-Right		4	13	22	20	22	28	38	38	35	35	34	35	26
North-Thru		239	473	520	586	573	683	830	770	827	953	1,216	1,335	832
South-Left		38	71	98	83	79	97	110	124	109	113	116	124	120
South-Right		113	196	295	224	217	231	246	270	293	300	330	343	232
South-Thru		506	1,034	1,543	1,071	860	837	868	967	1,003	968	975	891	765
West-Left		10	25	53	44	41	56	81	88	65	58	61	54	50
West-Right		42	66	69	68	71	85	108	106	102	110	135	157	96
West-Thru	South	51	165	213	182	162	210	266	245	249	269	282	300	199

Map 7 Douglas at Rocky Ridge



Table 21 Douglas at Rocky Ridge Transit Priority Measures

Measure	Able to be Implemented	Recommended to be Implemented
Transit Signal Priority	Yes	No
Queue Jumps	No	No

Rocky Ridge at Lead Hill

Rocky Ridge at Lead Hill does not have the required space to implement queue jumps with the current placement of the signals at the intersection. Overall, the intersection has fairly minimal traffic and does not warrant TSP.

Table 22 Rocky Ridge at Lead Hill Traffic Volumes

Direction-Movement	Trip Direction	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
East-Left		19	35	57	47	45	66	106	108	79	67	75	73	62
East-Right		78	190	277	195	203	251	285	304	297	289	330	331	258
East-Thru		56	109	213	150	153	181	236	274	231	209	223	208	155
North-Left		82	246	259	256	279	333	386	330	346	408	468	486	294
North-Right		25	35	61	56	58	66	85	80	78	79	81	72	42
North-Thru	North	92	296	347	291	282	348	441	404	418	532	509	539	355
South-Left		7	6	10	12	13	16	15	18	19	16	12	12	9
South-Right		12	42	76	81	89	104	127	132	126	115	146	145	81
South-Thru	South	130	288	357	294	280	335	405	405	432	467	509	568	379
West-Left		9	13	28	41	51	82	121	96	75	80	101	106	56
West-Right		1	5	7	9	13	20	25	20	19	22	22	21	11
West-Thru		35	102	117	146	158	189	233	210	199	227	267	319	142
East-Left		19	35	57	47	45	66	106	108	79	67	75	73	62

Map 8 Rocky Ridge at Lead Hill

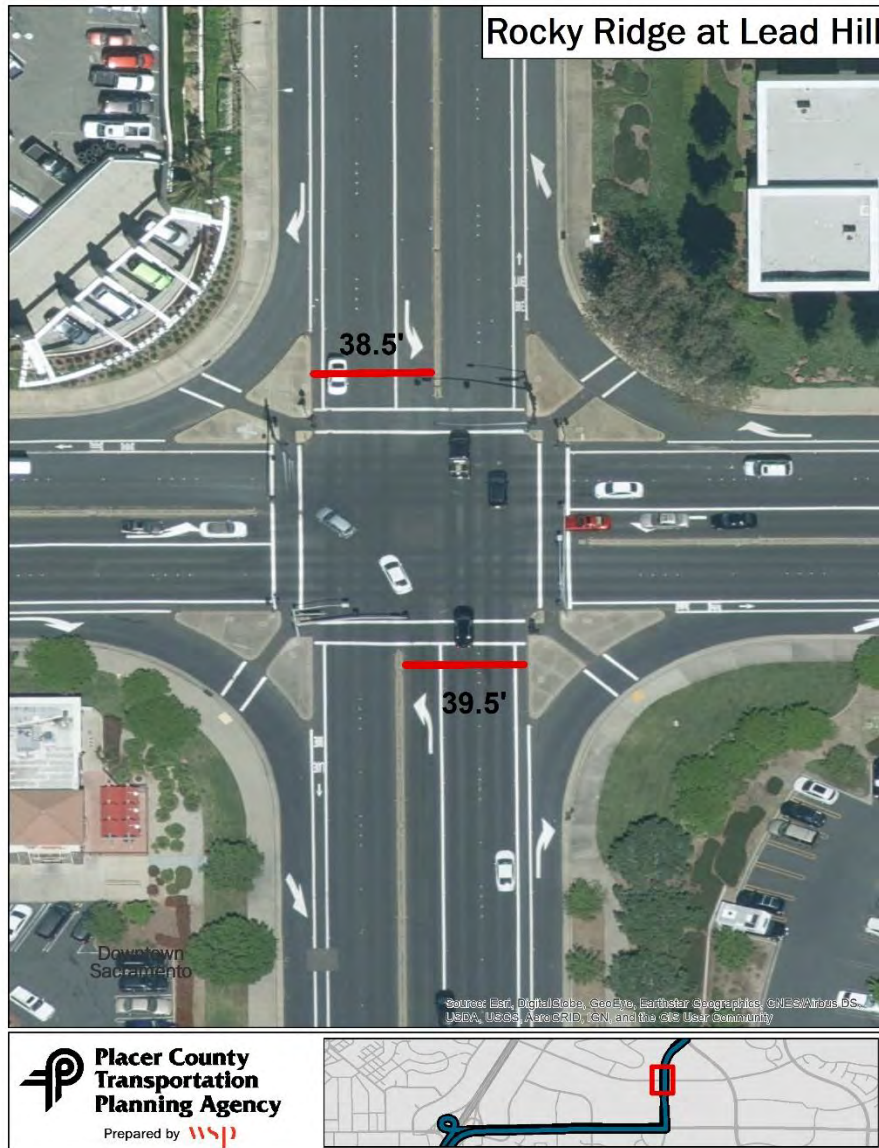


Table 23 Rocky Ridge at Lead Hill Transit Priority Measures

Measure	Able to be Implemented	Recommended to be Implemented
Transit Signal Priority	Yes	No
Queue Jumps	No	No

Eureka at Rocky Ridge

Eureka at Rocky Ridge is a highly congested corridor, but it has a protected left turn lane in the south direction and has coordinated signals in the north direction so improvements are not necessary.

Table 24 Eureka at Rocky Ridge Traffic Volumes

Direction-Movement	Trip Direction	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
East-Left		47	150	144	150	180	235	288	257	287	340	396	391	249
East-Right		2	5	9	13	16	21	30	31	25	22	21	27	23
East-Thru		63	161	234	205	183	236	319	309	294	361	330	363	253
North-Left		16	22	34	37	38	54	80	62	53	49	52	61	50
North-Right		4	13	22	20	22	28	38	38	35	35	34	35	26
North-Thru	North	239	473	520	586	573	683	830	770	827	953	1,216	1,335	832
South-Left		38	71	98	83	79	97	110	124	109	113	116	124	120
South-Right	South	113	196	295	224	217	231	246	270	293	300	330	343	232
South-Thru		506	1,034	1,543	1,071	860	837	868	967	1,003	968	975	891	765
West-Left		10	25	53	44	41	56	81	88	65	58	61	54	50
West-Right		42	66	69	68	71	85	108	106	102	110	135	157	96
West-Thru		51	165	213	182	162	210	266	245	249	269	282	300	199

Map 9 Eureka at Rocky Ridge



Table 25 Eureka at Rocky Ridge Transit Priority Measures

Measure	Able to be Implemented	Recommended to be Implemented
Transit Signal Priority	Yes	No
Queue Jumps	No	No

Eureka at Sunrise

Eureka at Sunrise is a highly congested corridor, but not in the direction of travel of the service. Because of the minimal congestion in the direction of travel and that the vehicle is turning in both directions, the intersection is not recommended for queue jumps.

TSP is possible, but it would only be needed in Southbound trip direction because there is a merge turn lane in the northbound direction. The TSP implementation would need to be coordinated with the City of Roseville's coordinated signals system if implemented.

Table 26 Eureka at Sunrise Traffic Volumes

Direction-Movement	Trip Direction	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
East-Left		38	85	143	229	297	359	404	402	385	399	444	434	378
East-Right		11	34	76	100	123	148	185	183	163	160	167	160	128
East-Thru		157	200	150	171	194	162	257	184	203	228	170	205	165
North-Left		15	44	70	96	99	112	165	148	122	123	131	127	87
North-Right	North	21	67	86	95	102	121	147	147	138	145	147	147	102
North-Thru		287	565	558	633	663	827	1,002	976	1,072	1,282	1,653	1,819	1,144
South-Left	South	166	304	336	263	229	220	232	260	259	237	226	212	201
South-Right		147	329	394	383	370	387	416	387	368	375	359	327	220
South-Thru		703	1,352	1,977	1,337	1,035	1,011	1,039	1,139	1,178	1,137	1,211	1,162	959
West-Left		23	68	108	97	103	122	144	131	131	142	151	144	106
West-Right		93	182	197	210	223	236	227	218	252	304	348	335	202
West-Thru		60	164	240	284	307	330	360	330	338	379	376	302	195

Map 10 Eureka at Sunrise



Table 27 Eureka at Sunrise Transit Priority Measures

Measure	Able to be Implemented	Recommended to be Implemented
Transit Signal Priority	Yes	No
Queue Jumps	No	No

Sunrise at Roseville

Eureka at Roseville is a highly congested corridor, but not in the direction of travel of the service. Because of the minimal congestion in the direction of travel the intersection is not recommended for queue jumps.

TSP is possible, but it would be difficult to implement because Roseville is a coordinated signal street and the vehicles use the intersection twice every trip but travel in different directions and so the vehicle would be triggering a potential signal change or signal extender very frequently and potentially for the incorrect movement, creating potential issues with Roseville's signal coordination and not benefitting the transit service.

Table 28 Sunrise at Roseville Traffic Volumes

Direction-Movement	Trip Direction	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
East-Left	East-Left	South	193	335	359	282	262	219	211	264	267	206	131	95
East-Right	East-Right		84	276	392	253	233	254	300	316	294	290	286	257
East-Thru	East-Thru		720	1,517	1,968	1,375	1,058	1,105	1,252	1,375	1,448	1,595	1,796	1,748
North-Left	North-Left		62	139	208	244	289	361	433	387	376	425	489	520
North-Right	North-Right		41	73	123	132	130	142	156	163	161	191	216	216
North-Thru	North-Thru	North	109	189	213	170	170	142	147	175	178	137	96	65
South-Left	South-Left		5	20	27	36	41	45	44	38	51	58	59	37
South-Right	South-Right	North	28	116	126	161	223	253	264	216	287	349	359	241
South-Thru	South-Thru	South	17	43	60	83	110	126	128	105	132	174	187	136
West-Left	West-Left		66	149	199	179	172	167	179	161	179	190	198	173
West-Right	West-Right		25	39	49	46	45	36	35	41	43	33	22	15
West-Thru	West-Thru		605	1,183	1,520	1,297	1,243	1,380	1,439	1,328	1,440	1,648	1,892	1,909

Map 11 Sunrise at Roseville



Table 29 Sunrise at Roseville Transit Priority Measures

Measure	Able to be Implemented	Recommended to be Implemented
Transit Signal Priority	Yes	No
Queue Jumps	Yes	No

Roseville at Taylor

Roseville at Taylor is a highly congested intersection in both direction with traffic volumes over 1,000 vehicles per hour throughout the day. Roseville at Taylor has six lanes in each direction with the east direction spanning 71.5 feet and the west direction spanning 71 feet. Queue jump lanes need at least 10.5 feet to accommodate a transit vehicle. There is an existing turn lane in each direction that can be utilized for the queue jump. Additional signaling and restriping would be required.

Because this is on a coordinated signals corridor, it is not recommended for TSP

Table 30 Roseville at Taylor Traffic Volumes

Direction-Movement	Trip Direction	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
East-Left		33	79	103	84	81	106	126	128	120	135	151	151	141
East-Right		128	162	153	111	110	152	192	201	217	210	226	213	175
East-Thru	South	636	1,463	1,892	1,306	1,062	1,112	1,275	1,406	1,456	1,519	1,625	1,503	1,194
North-Left		146	294	371	358	372	417	480	470	435	475	535	546	498
North-Right		154	218	290	204	176	171	175	198	209	221	219	217	206
North-Thru		46	104	148	136	145	172	209	199	202	243	300	323	227
South-Left		217	445	486	365	295	285	300	323	323	336	365	359	276
South-Right		26	59	85	87	94	120	132	126	117	129	150	159	130
South-Thru		66	109	157	122	110	125	134	141	142	142	176	178	125
West-Left		184	256	253	231	232	245	275	259	294	290	270	240	209
West-Right		59	135	199	208	223	263	300	272	326	388	472	473	361
West-Thru	North	451	1,049	1,385	1,250	1,278	1,468	1,566	1,407	1,471	1,730	1,993	1,963	1,566

Map 12 Roseville at Taylor



Table 31 Roseville at Taylor Transit Priority Measures

Measure	Able to be Implemented	Recommended to be Implemented
Transit Signal Priority	Yes	Yes
Queue Jumps	Yes	Yes

Roseville at Creekside Ridge

Roseville at Creekside Ridge is a highly congested intersection in both direction with traffic volumes over 1,000 vehicles per hour throughout the day. Roseville at Creekside Ridge has five lanes in each direction with the east direction spanning 62.5 feet and the west direction spanning 60 feet. Queue jump lanes need at least 10.5 feet to accommodate a transit vehicle. There is an existing turn lane in each direction that can be utilized for the queue jump. Additional signaling and restriping would be required.

Because this is on a coordinated signals corridor, it is not recommended for TSP

Table 32 Roseville at Creekside Ridge Traffic Volumes

Direction-Movement	Trip Direction	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
East-Left		3	3	7	12	16	22	32	36	32	26	29	29	25
East-Right		1	4	5	9	12	18	23	29	24	21	20	25	16
East-Thru		1	1	4	5	6	8	11	12	11	9	10	11	8
North-Left		6	13	21	24	29	45	49	41	34	32	40	38	33
North-Right		68	149	193	178	181	225	273	243	213	259	307	344	231
North-Thru	North	538	1,250	1,638	1,506	1,544	1,739	1,863	1,738	1,790	2,049	2,329	2,303	1,970
South-Left		12	38	47	50	58	68	97	107	95	82	84	83	72
South-Right		1	3	5	5	7	8	14	12	10	10	10	8	9
South-Thru	South	772	1,668	2,029	1,402	1,132	1,193	1,357	1,480	1,551	1,623	1,738	1,616	1,312
West-Left		35	77	100	73	100	164	228	229	218	221	239	223	174
West-Right		6	21	24	24	29	45	61	54	52	69	81	82	46
West-Thru		0	1	2	1	1	2	2	2	2	2	2	2	2

Map 13 Roseville at Creekside Ridge

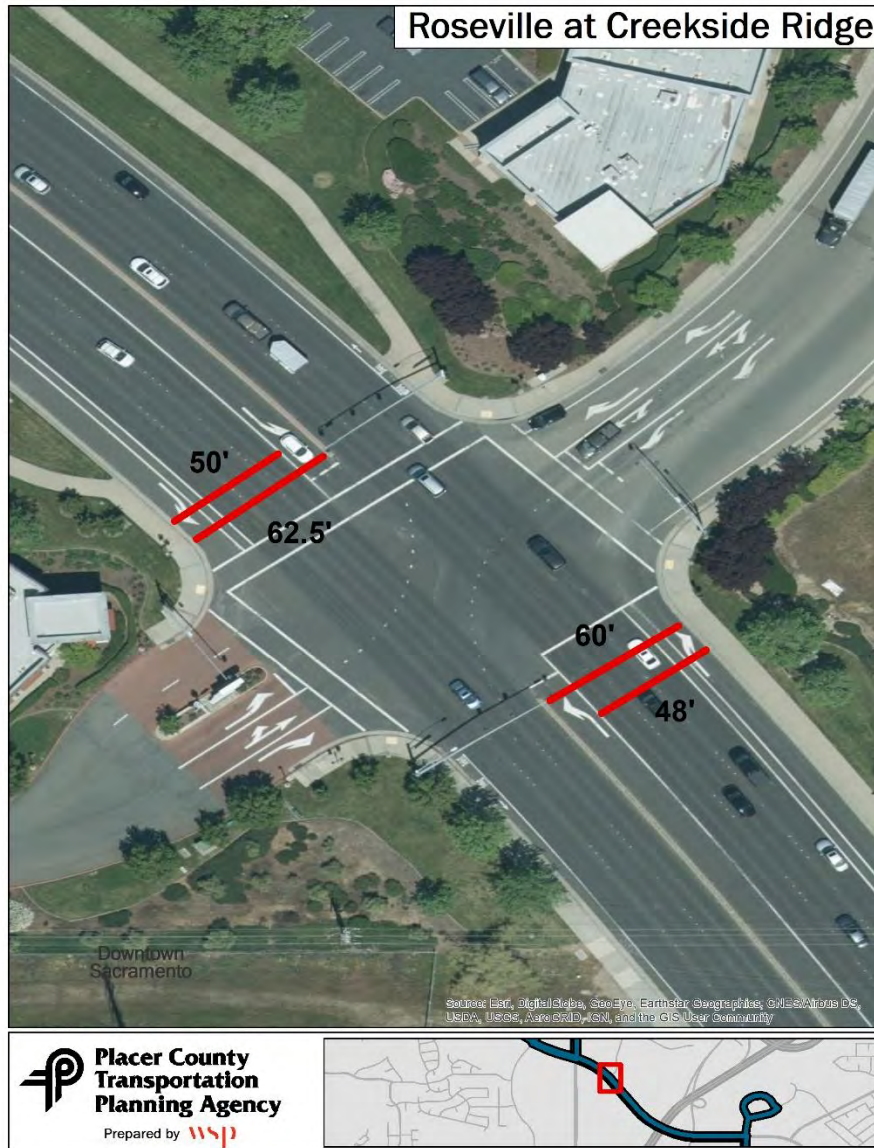


Table 33 Roseville at Creekside Ridge Transit Priority Measures

Measure	Able to be Implemented	Recommended to be Implemented
Transit Signal Priority	Yes	Yes
Queue Jumps	Yes	Yes

Roseville at Galleria

Roseville at Galleria Ridge is a highly congested intersection in both direction with traffic volumes over 1,000 vehicles per hour throughout the day. Roseville at Galleria has five lanes in each direction with the east direction spanning 62.5 feet and the west direction spanning 62 feet, there is also a separate turning lane in each direction. Queue jump lanes need at least 10.5 feet to accommodate a transit vehicle. The west direction would require an average lane width less than 10.5 feet, but the queue jump could still be implemented. Additional signaling and restriping would be required.

Because this is on a coordinated signals corridor, it is not recommended for TSP

Table 34 Roseville at Galleria Traffic Volumes

Direction-Movement	Trip Direction	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
East-Left	North	52	119	176	233	300	389	447	465	449	437	454	444	424
East-Right		175	463	545	412	323	365	384	435	479	502	519	493	387
East-Thru	South	435	1,132	1,346	966	738	770	899	998	1,052	1,091	1,207	1,129	878
North-Left		45	149	232	195	249	300	342	351	328	414	468	496	383
North-Right		12	48	51	37	39	59	73	69	61	84	65	56	50
North-Thru		92	269	352	354	443	541	608	588	594	707	769	837	612
South-Left		350	536	693	473	449	498	555	586	564	571	586	573	516
South-Right	South	40	93	167	145	190	274	316	339	307	307	325	350	325
South-Thru		163	376	487	401	454	571	628	625	641	611	629	651	564
West-Left		25	55	89	122	164	228	266	236	214	209	225	214	195
West-Right		256	551	676	624	608	666	695	658	688	777	855	825	721
West-Thru	North	257	641	884	775	791	898	1,017	1,002	1,016	1,174	1,368	1,384	1,165

Map 14 Roseville at Galleria

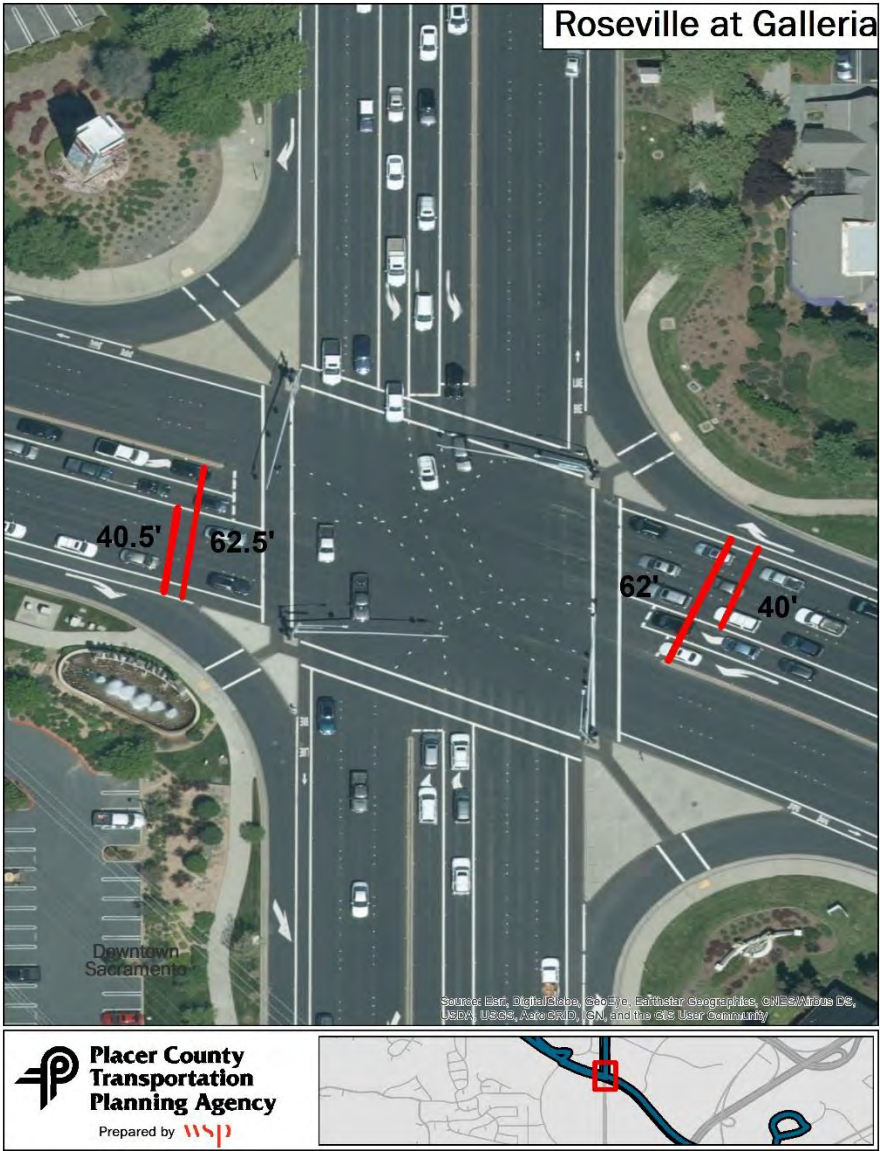


Table 35 Roseville at Galleria Transit Priority Measures

Measure	Able to be Implemented	Recommended to be Implemented
Transit Signal Priority	Yes	Optional
Queue Jumps	Yes	Optional

APPENDIX

A-4 *OPERATOR MEMO*



MEMO

TO: Ed Scofield, PCPTA; Mike Luken, PCTPA
FROM: Kristina Svensk, WSP; Chris Duddy, WSP
SUBJECT: Lincoln Express Route Operator Analysis
DATE: May 12, 2020

Placer County Transportation Planning Agency (PCTPA) is conducting a study to develop an operating plan for an express route between the City of Lincoln and the Sacramento Regional Transit (SacRT) Watt/I-80 Light Rail Station via Roseville. There are four fixed-route operators in Placer County: Roseville Transit (RT), Placer County Transit (PCT), Auburn Transit, and Tahoe Truckee Area Regional Transit (TART). Two of the operators, RT and PCT, are willing to operate the service and currently operate service near the express route's alignment.

The following memo details considerations for choosing the operator for the service and the feasibility of battery electric buses in operating the service.

SERVICE AREA

Summary: When comparing service miles in jurisdictions, the route will operate predominately in the City of Roseville, but PCT has historically operated in Lincoln and to the Watt/I-80 LR Station.

PCT provides public transit in the western portion of Placer County. PCT currently provides service between Auburn and the Watt/I-80 Light Rail Station and has operated service in Lincoln for nearly twenty years. RT provides public transit within Roseville and commuter service between Roseville and downtown Sacramento. The commuter routes to Sacramento and Routes G and E that serve Sierra College in Rocklin are the only routes that travel outside the City limits.

The miles traveled by the proposed express route as a whole and within Placer County, Roseville, and the City of Lincoln are shown in Table 1. The route operates 36.4% miles in the City of Roseville and 19.6% in the City of Lincoln. The route does operate 31.0% of its service miles in Lincoln and unincorporated parts of the county.

Table 1 Directional Route Miles Operated in Jurisdictions

Route	Express Route Miles	Express Route Miles in Placer County	Express Route Miles in Roseville	Express Route Miles in Lincoln	Express Route Miles for unincorporated Placer County
Northbound	26.1	17.7	9.7	5.0	3.0
Southbound	27.5	18.4	9.8	5.5	3.0
Total	53.6	36.1	19.5	10.5	6.1
Percent of Route	100.0%	67.4%	36.4%	19.6%	11.4%

STOPS

Summary: The route operates the same amount of stops in Lincoln and Roseville, but if RT operates the service, they may be responsible for maintaining stops in Lincoln.

The service would stop six times in both Lincoln and Roseville for a round trip. The service would require three additional stops to be built and maintained in Lincoln (two on Twelve Bridges Rd and one on Sterling Pkwy) and an additional stop be maintained in Roseville (NB-Rocky Ridge Rd at Kaiser).

The route would use two existing stops in Lincoln and three existing stops in Roseville.

When PCT assumed operations of the Lincoln Circulator, the City was still responsible for the stops within the City, but this may not be the case with the additional stops and if the City of Roseville operates the service.

MAINTENANCE AND FUELING

Summary: PCT has the fueling infrastructure to operate the most fuel types and would have mechanics prepared to work on a CNG engine. Roseville Transit's maintenance facility is much closer to the service and would be more easily able to respond to any mechanical issues.

The type of vehicles by fuel in PCT and RT's fleet are shown in Table 2.

RT does not currently have the infrastructure to fuel compressed natural gas (CNG) vehicles. If they were to operate the service, diesel vehicles or zero emission buses would most likely need to be purchased.

PCT currently operates a mix of CNG, diesel, and unleaded vehicles. PCT staff are currently trained in CNG engine maintenance and the fueling infrastructure is present.

Both agencies will most likely need to transition to zero-emission buses (ZEB) eventually and the prevalence of diesel and unleaded gasoline in each fleet has the opportunity of increasing grant funding for ZEB buses, however, battery electric and hydrogen fueled vehicles do not currently



have the range to meet the length of the vehicle blocks of the express service, requiring additional vehicles to operate the service or on-route charging infrastructure built.

Table 2 Vehicle Fuel Types

Route	Placer County Transit	Roseville Transit
Unleaded	Yes	Yes
Diesel	Yes	Yes
CNG	Yes	No
Electric	No	No
Hydrogen	No	No

The proximity of the Roseville maintenance division would be a benefit to the service because maintenance staff would be able to more quickly reach a bus that is having mechanical problems, and they would be more likely to quickly get a bus into service to replace a bus that is unable to provide service.

COST

Summary: The operators are similar in their operating cost.

The table below breaks down the cost to operate the service.

Table 3 Fully Burdened Operating Cost

Cost	Placer County Transit	Roseville Transit
Per Hour	\$120.00	\$121.00

Source: Rates Provided by PCTPA

Based off the operating stats and the costs per hour and mile, it is estimated that RT would operate the service at a cost of \$7,212 per day and PCT at \$7,152 per day.

Table 4 Fully-Burdened Operating Cost

Agency	Total Hours	Hourly Cost
Placer County Transit	59.6	\$7,152.00
Roseville Transit	59.6	\$7,211.60

REVENUE IMPLICATIONS

Summary: If the ridership is the same no matter who operates it, RT would receive more fare revenue from the service which would reduce the subsidy of the service.

The fare breakdown by agency is shown in Table 5. Roseville Transit has higher fares for single, day, and monthly passes. The increased fares would increase the passenger revenue of the service and improve performance as it relates to farebox recovery, however, PCT's less expensive fares may also attract ridership which would also improve the performance of the service in terms of passengers per mile and hour.

If customers are purchasing monthly passes, Roseville's fare structure would generate more than 50% of the same fare on Placer County Transit.

Table 5 Transit Operator Fares

Agency	Placer County Transit	Roseville Transit
Single-Ride	\$1.25	\$1.50
Day Pass	\$2.50	\$4.00
Monthly Pass	\$37.50	\$58.00



IMPACTS TO FUTURE SERVICE AND REVENUE

Summary: If RT operates the service and PCT loses ridership and fare revenue on other services near the route, they may reduce service in the future which would reduce mobility in Placer County.

There is the possibility that the introduction of this service would impact the boarding and fare revenue for PCT's Auburn to Light Rail Route, Lincoln Circulator, and Lincoln/Rocklin/Sierra College services because of the similarities in areas served. The reduced ridership and subsequently the reduced fares may lead to PCT leadership implementing service cuts in the future due to low performance. The likelihood of that happening is increased if the lost fares and boardings are going to RT and not staying within PCT's share of boardings and fare revenue.

If RT does operate the service, close monitoring of the impacts to PCT service should occur to help inform potential changes in service in the future.

WATT/I-80 LIGHT RAIL STATION

Summary: If RT operates the service, SacRT and RT would need to enter into a MOU to ensure that they were able to use the transit facility.

Whoever operates the service will need to enter into a memorandum of understanding (MOU) with SacRT to use the Watt/I-80 Light Rail Station. This should not be an issue for either operator, but PCT most likely already has an existing MOU with SacRT for the use of the station. The only potential threat to this is if there are capacity constraints due to planned increased service in the future.

BATTERY ELECTRIC BUS OPERATIONS

Summary: It is possible for Battery Electric Buses to operate the service, but there would need be an on-route charger with the capabilities of exporting at least 400 kW and the purchase of a Bus with at least a 653 kWh battery)

A preliminary analysis was done to identify the feasibility of operating the service with a battery electric bus. A 2.5 kWh/mi. battery efficiency was assumed for this service, this is a conservative estimation (New Flyer advertises an efficiency of 1.65 – 2.07 kWh/mi and Proterra advertises an efficiency of 1.53 – 2.35kWh/mi), it is important to note that a higher efficiency number requires more energy to operate the service every mile.

The energy requirements to operate the service are shown in Table 6 which is based off the roundtrip distances, the previously stated efficiency, and the number of round trips and pull trips each vehicle would perform. Without using on-route charging, each vehicle would require a battery that would be able to supply 1,001.5 kWh, but this technology does not currently exist with the largest battery available at 660 kWh. The battery-size would most likely need to be larger because there is a portion of the battery that is unusable and a portion of the battery capacity should remain unused to increase battery longevity.

Table 6 Vehicle Energy Requirements

	Battery Efficiency (KWh/Mi)	Round Trip Distance (Mi)	Round Trip Energy requirement (kWh)	Vehicle Round Trips	Energy Needed for trips (kWh)
In-Service trips	2.5	53.6	134	7	938.0
Deadhead Trips	2.5	25.4	63.5	1	63.5
Total					1,001.5

The following table demonstrates the power required and battery size needed from an on-route charger to ensure that the vehicle would be able to complete the service. An on-route charger has an advertised capacity, but factors like existing battery state of charge can impact the speed of the charger and the efficiency. To account for the potential decrease in efficiency, the advertised charge was reduced by 20%. Table 7 assumes that the vehicle is able to charge the battery for at least 14 minutes every roundtrip. Based off the energy replenished after each on-route charge, the 400 kW and 500 kW chargers would be able to supply enough energy via on-route charging for a bus with at least a 522 kWh or 410 kWh battery. The 522 kWh and 410 kWh batteries are the minimum energy required and there should be an assumption that you would need a larger battery (an estimate of 653 kWh or 512 kWh battery) to account for battery longevity and portions of the battery unusable.

Table 7 Battery Capacity Needed per Power Supplied

Trip	200 kW Charger (160 kW Supplied per hour)			300 kW Charger (240 kW Supplied per hour)			400 kW Charger (320 kW Supplied per hour)			500 kW Charger (400 kW Supplied per hour)		
	Battery used (kWh)	On- Route Charge (kWh)	Battery used after on- Route (kWh)	Battery used (kWh)	On- Route Charge (kWh)	Battery used after on- Route (kWh)	Battery used (kWh)	On- Route Charge (kWh)	Battery used after on- Route (kWh)	Battery used (kWh)	On- Route Charge (kWh)	Battery used after on- Route (kWh)
Pull Trip	-31.8	0.0	-31.8	-31.8	0.0	-31.8	-31.8	0.0	-31.8	-31.8	0.0	-31.8
Roundtrip 1	-165.8	37.3	-128.4	-165.8	56.0	-109.8	-165.8	74.7	-91.1	-165.8	93.3	-72.4
Roundtrip 2	-262.4	37.3	-225.1	-243.8	56.0	-187.8	-225.1	74.7	-150.4	-206.4	93.3	-113.1
Roundtrip 3	-359.1	37.3	-321.8	-321.8	56.0	-265.8	-284.4	74.7	-209.8	-247.1	93.3	-153.8
Roundtrip 4	-455.8	37.3	-418.4	-399.8	56.0	-343.8	-343.8	74.7	-269.1	-287.8	93.3	-194.4
Roundtrip 5	-552.4	37.3	-515.1	-477.8	56.0	-421.8	-403.1	74.7	-328.4	-328.4	93.3	-235.1
Roundtrip 6	-649.1	37.3	-611.8	-555.8	56.0	-499.8	-462.4	74.7	-387.8	-369.1	93.3	-275.8
Roundtrip 7	-745.8	37.3	-708.4	-633.8	56.0	-577.8	-521.8	74.7	-447.1	-409.8	93.3	-316.4
Pull Trip	-740.2	0	-740.2	-609.5	0	-609.5	-478.8	0	-478.8	-348.2	0	-348.2