State of California
DEPARTMENT OF TRANSPORTATION

California State Transportation Agency

MEMORANDUM

To: CHAIR AND COMMISSIONERS
CALIFORNIA TRANSPORTATION COMMISSION

CTC Meeting: June 25-26, 2026

From: STEVEN KECK, Chief Financial Officer

Reference Number: 2.1b.(2), Information Item

Prepared By: James R. Anderson, Chief
Division of Financial Programming

Subject: **STIP AMENDMENT 26S-10 (NOTICE)**
PPNO 3597 – SHASTA AND TEHAMA COUNTIES

SUMMARY:

The California Department of Transportation (Department) will request that the California Transportation Commission (Commission) approve the requested State Transportation Improvement Program (STIP) amendment at the next scheduled Commission meeting following the notice period.

The Department proposes to amend the STIP Fix 5 Cascade Gateway / I-5 Improvements Shasta project (PPNO 3597), in Shasta and Tehama Counties, to modify the scope.

BACKGROUND:

The original project scope at the time of the STIP application was to widen Interstate 5 from four to six lanes through the City of Redding. During project development and environmental clearance, technical studies such as traffic modeling, air quality, and noise quality, were conducted.

Upon evaluation of these studies and design refinement, the Project Development Team determined the truck only lanes were not warranted south of Route 44 due to lower truck traffic volumes. The project outputs for the STIP application were revised due to the updated studies and design.

Therefore, the Department is requesting this scope amendment to revise the limits of the project, and outputs for Slow Vehicle Lanes, Roadway Vehicle Lanes, Auxiliary Lanes, Mainline Shoulder Construction and Communication (Fiber Optics).

ANALYSIS:

The Department's analysis has concluded that the proposed scope changes are based on technical studies. This project remains fully funded and adheres to STIP Program Guidelines.

ANALYSIS RECOMMENDATION:

Based on the Commission's scope change guidance, as well as the analysis of the proposed scope changes, the Department has determined that this scope change will not reduce the user's benefit. Therefore, the Department supports the proposed scope changes for this project. The proposed scope changes described above are summarized in the Scope Change Analysis.

Attachment

Project Information

Project Title: **Fix 5 Cascade Gateway**

District: 2

PPNO: 3597

Cycle: 3

Nominating Agency: Shasta Regional Transportation Agency

Implementing Entity: Caltrans

Funding Program(s): TCEP/ STIP

Submitted Documents

☒ **Scope Change Request**

☐ **Original ePPR**

☒ **Revised ePPR**

Additional Information: The proposed scope modification request also includes an updated ePPR, and revised Benefit Cost Analysis that describes and supports the shift of a managed lane to a proposed 'truck-only' lane limits and advanced signing, due to the low truck traffic volumes.

Summary

Reduction in Outputs?

Yes: ☒ No: ☐ Neutral: ☐

Reduction in Benefits?

Yes: ☐ No: ☐ Neutral: ☒

Increase/Reduction in Total Project Cost?

Increase: ☒ Reduction: ☐ No Change: ☐

Increase/Reduction in SB 1 Funds?

Increase: ☐ Reduction: ☐ No Change: ☒

Do all partners and funding entities approve of the proposed scope change?

Yes: ☒ No: ☐

Does the SB 1 Office recommend?

Yes: ☒ No: ☐

Original Scope

The Fix 5 Cascade Gateway (F5CG) project will widen Interstate 5 in the Redding area for a truck-only lane in each direction of travel. Project work includes installing two truck Zero Emission Vehicle (ZEV) charging stations, installing Intelligent Transportation Systems facilities with lane management for emergency events, drainage improvements, four auxiliary lanes, upgrading median barrier and guardrail, pavement preservation, and upgrading signing and lighting.

Project Outputs			
Category	Outputs	Unit	Total
Pavement (lane-miles)	Roadway lane miles	Miles	7.6
Pavement (lane-miles)	Mainline Shoulders construction	Miles	15.2
Bridge / Tunnel	Modified/Reconstructed bridges/tunnels	SQFT	119,522
Operational Improvement	Auxiliary lanes	Miles	5
TMS (Traffic Management Systems)	Closed circuit television cameras	EA	1
TMS (Traffic Management Systems)	Communications (fiber optics)	Miles	1.2
Operational Improvement	Slow vehicle lanes	Miles	23.7

Proposed Scope

The original project limits in the TCEP application were expanded to encompass project limits that would exceed project needs, therefore additional studies were conducted to determine the appropriate begin/end 'truck-only' lane limits.

Current: SHA-5-PM R10.3/R26.0 and TEH-5-PM 40.5
Proposed: SHA-5-PM R12.0/R24.7 and TEH-5-PM 40.7

It was confirmed the managed lanes for part-time 'truck only' operation was not warranted south of Route 44, on Interstate 5, due to the low truck traffic volumes. As a result, the project limits were adjusted to align with the proposed 'truck-only' lane limits and advanced signing.

Project Outputs			
Category	Outputs	Unit	Total
Pavement (lane-miles)	Roadway lane miles	Miles	5.3
Operational Improvement	Auxiliary lanes	Miles	2.9
TMS (Traffic Management Systems)	Closed circuit television cameras	EA	1
Operational Improvement	Slow vehicle lanes	Miles	14.2
TMS (Traffic Management Systems)	Communications (fiber optics)	Miles	0.78
Bridge / Tunnel	Modified/Reconstructed bridges/tunnels	SQFT	119,522
Pavement (lane-miles)	Mainline Shoulders construction	Miles	6.4

Reason/Justification

At the time of the TCEP nomination, the original project scope was revised from adding a third general purpose land to adding a managed 'truck-only' lane. Subsequentially, a Supplemental Environmental Document (ED) and Project Report (PR), along with technical studies were required to document the 'truck-only' scope.

This proposed scope change reflects the refinement of the design based on those updated studies, that resulted in the revision of the project's outputs and outcomes from its Cycle 3 TCEP application.

As stated above, the change in the project limits was anticipated but could not be confirmed until the additional studies were performed. Also, as part of this scope change is the shift in outputs affected by the reduction in the project limits relate to slow vehicle, roadway and auxiliary lanes, main shoulder construction, and length of fiber optic needing to be laid. The impact to each one of these elements is detailed under the "Impact to Outputs' section of this analysis.

Impact to Cost:

There is no direct project cost due to the change in the project limits or outputs. However, there is a parallel cost increase request due to unit price inflation and refinement of contract bid item quantities at allocation.

The STIP-RIP construction capital increase that will occur at the time of allocation, have been approved by the SRTA Board of Directors and the SB 1 TCEP construction capital increase has been approved by the HQ SB 1 Office.

The current funding amounts are:

Project Cost

Funding Type	Originally Programmed	Current Budget
RIP – National Hwy System	$9,089,000	$9,089,000
Federal – CRRSAA -Corona Response and Relief Supplemental Appropriations Act, 2021	$500,000	$500,000
Demo – Community Funding Program – TEA 21	$3,000,000	$3,000,000
SB 1 TCEP – State funding	$55,121,000	$55,121,000
SB 1 TCEP – State funding	$17,601,000	$17,601,000
Additional Funding Received:		
G-12- PA&ED and PS&E		$636,000
Supplemental funds - TCEP		$7,408,000
STIP/RIP – SRTA		$3,000,000
Total	**$85,311,000**	**$96,355,000**

Impact to Schedule:

The recent change to a managed lane for part-time 'truck only' operation (versus a 24-hour 'truck-only' lane), has delayed the project for up to 20 months due to a potential change to the environmental document. The goal is to revalidate the current environmental findings and request allocation at the August 2026 Commission meeting.

	Existing	Proposed
Project Study Report Approved	2/14/2017	
Begin Environmental (PA&ED) Phase	1/07/2019	1/07/2019
Circulate Environmental Document Document Type: (ND/MND)/CE	4/30/2020	4/30/2020
Draft Project Report	4/30/2020	4/30/2020
End Environmental Phase (PA&ED milestone)	8/04/2020	8/04/2020
Begin Design (PS&E) Phase	7/01/2022	7/01/2022
End Design Phase (Ready to List for Advertisement Milestone)	8/29/2024	3/21/2025
Begin Right of Way Phase	7/01/2022	7/01/2022
End Right of Way Phase (Right of Way Certification Milestone)	8/08/2024	1/03/2025
Begin Construction Phase (Contract Award Milestone)	2/04/2025	12/01/2026
End Construction Phase (Construction Contract Acceptance Milestone)	12/28/2026	9/03/2029
Begin Closeout Phase	12/28/2028	3/03/2031
End Closeout Phase (Closeout Report)	9/30/2030	3/03/2032

Impact to Outputs

The project outputs for the TCEP application have been revised due to the updated studies and design.

Approved Outputs as shown in Original ePPR

Project Outputs			
Category	Outputs	Unit	Total
Pavement (lane-miles)	Roadway lane miles	Miles	7.6
Pavement (lane-miles)	Mainline Shoulders construction	Miles	15.2
Bridge / Tunnel	Modified/Reconstructed bridges/tunnels	SQFT	119,522
Operational Improvement	Auxiliary lanes	Miles	5
TMS (Traffic Management Systems)	Closed circuit television cameras	EA	1
TMS (Traffic Management Systems)	Communications (fiber optics)	Miles	1.2
Operational Improvement	Slow vehicle lanes	Miles	23.7

Proposed Outputs:

Project Outputs			
Category	Outputs	Unit	Total
Pavement (lane-miles)	Roadway lane miles	Miles	5.3
Operational Improvement	Auxiliary lanes	Miles	2.9
TMS (Traffic Management Systems)	Closed circuit television cameras	EA	1
Operational Improvement	Slow vehicle lanes	Miles	14.2
TMS (Traffic Management Systems)	Communications (fiber optics)	Miles	0.78
Bridge / Tunnel	Modified/Reconstructed bridges/tunnels	SQFT	119,522
Pavement (lane-miles)	Mainline Shoulders construction	Miles	6.4

Side by Side Comparison:

Category	Outputs	Unit	Approved	Revised
Pavement	Roadway	Miles	7.6	5.3
Operational Improvement	Auxiliary Lanes	Miles	5	2.9
Operational Improvement	Slow Vehicle	Miles	23.7	14.2
TMS	Communications (Fiber Optic)	Miles	1.2	0.78
Pavement	Mainline Shoulders	Miles	15.2	6.4

The impact to revised outputs and outcomes is detailed below.

Limits of the Project:
Current: SHA-5-PM R10.3/R26.0 and TEH-5-PM 40.5
Proposed: SHA-5-PM R12.0/R24.7 and TEH-5-PM 40.7
The original project limits in the TCEP application were expanded to encompass project limits that would exceed project needs and therefore conducting additional studies would determine the appropriate begin/end 'truck-only' lane limits. Upon evaluation of these studies and design refinement, the PDT confirmed the managed lanes for part-time 'truck only' operation was not warranted south of Route 44 due to the low truck traffic volumes. As a result, the project limits were adjusted to align with the proposed 'truck-only' lane limits and advanced signing.

Slow Vehicle Lanes: The total slow vehicle lane length as used in the TCEP application B/C Sketch Model was 15.7 miles but was reported in the PPR as 23.7 miles. Per traffic studies performed during the Supplemental PR & ED development, the proposed length is 14.2 miles. Since the change to this output falls within the existing 3 lane segments, the change to the work is limited to restriping the #1 lane. The slow vehicle lane change reported as 23.7 miles was an administrative error and is being corrected with the revised baseline agreement.

Roadway Vehicle Lanes: The roadway vehicle lanes (truck-only' or #1 lanes) are located in the existing two-lane segments. The TCEP application included existing transition taper lengths, whereas the proposed output does not include the taper lengths. The roadway vehicle lanes change was unforeseen until the incorrect lengths were discovered while refining the design.

Auxiliary Lanes: In the TCEP application and the ePPR the two auxiliary lanes located from the I-5/State Route (Route) 299 IC to the I-5/Route 273 IC (NB and SB) were incorrectly identified. The locations identified in the TCEP application and PPR are infeasible due to a conflict with the Twin View Boulevard on/off ramps located between Routes 299 and Route 273 and there are no ramps on the south side of Route 273 to terminate the auxiliary lanes. The proposed locations of the two auxiliary lanes are from I-5/Route 273 IC to Oasis Road UC as identified in the original Project Report dated August 4, 2020. The total corrected length is 2.9 miles. The footprint and estimate per the original PR are the same as the Supplemental PR, therefore there is no change in support or capital.

Mainline Shoulder Construction: The mainline shoulder construction lengths in the TCEP application incorrectly included ramp shoulders and reconstructed shoulders along with the mainline shoulder construction. The proposed output quantity was adjusted for consistency with TCEP performance output measuring requirements to reflect the correct length of 6.4 miles. Since the TCEP estimate was based off the initial PR and design footprint, which did not change, there are no changes to RW or CON Support or Capital costs. The mainline shoulder construction change was unforeseen until confirming the output quantities during the development of the baseline agreement.

Communication (Fiber Optics): This project, which will be combined for construction with the Cascade SHOPP project (EA 02-1J380) and will add a communication hub, along with the revision of the Advanced Variable Message Signs (AVMS) locations, reducing the length of the fiber optic from 1.2 miles to 0.78 mile; a reduction of 0.42 mile. This reduction of fiber optic length reduces the Construction Capital by $630,000 (0.78% of the total cost). However, the overall ITS Construction Capital costs are higher than initially estimated, due to higher AVMS costs which offsets the reduced fiber optic savings. Even with the fiber optic length reduction, all the proposed ITS elements will be connected and fully functional. The communication (fiber optic) change was unforeseen until the locations of the signs were determined with the design refinement and the recent addition of the communication hub

FHWA: The Department spoke with FHWA during PA&ED regarding the scope of a 'truck-only' lane. At that time, the Department was told FHWA approval was not required. However, in April 2025, FHWA cited Code of Federal Regulations Section 810 regarding the conversion of a general-purpose lane to a 'truck-only' lane and the necessity of approval from the Federal Highway Administrator. To avoid unknown delays and potential denial of the project, FHWA

recommended a managed lane for part-time 'truck only' operation. To continue to meet the need and purpose, as well as beneficial TCEP outcomes, and to avoid inducing VMT, the managed lane will be 'truck only' from 6 am to 7 pm. The FHWA approved the part-time managed lane on December 1, 2025

Impact to Benefits

The outcomes for the revised outputs have changed. The TCEP application used the Cal B/C Sketch "general purpose" project type contained several administrative errors. After remodeling, using a managed lane for part-time 'truck only' operation project type and new outputs, the outcomes still show a benefit.

The TCEP application and proposed estimates were both developed using historic unit prices and escalation (4.9% for FY 24-25 and 3.8% per year after) to the midpoint of construction.

		Managed TOL Model New scope & Cost project		
Indicator/Measure	**Unit**	**Build**	**Future No Build**	**Change**
Change in Daily Vehicle Hours of Delay	Hours	89.764786	225.4236262	-135.6588402
Daily Vehicle Hours of Travel Time Reduction	Hours	0	0	0
Change in Daily Truck Hours of Delay	Hours	0	0	0
Change in Truck Volume	#of Trucks	2,899,232	2,899,232	0
Change in Rail Volume	#of Trailers	0	0	0
Change in Rail Volume	#of Containers	0	0	0
Travel Time or Total Cargo Transport Time	Hours	24,087,046,418.19	24,033,351,448.95	53,694,969.24
Particulate Matter	PM 2.5 Tons	¶		4.00
Particulate Matter	PM 10 Tons			4.00
Carbon Dioxide (CO2)	Tons	¶		270,122.00
Volitile Organic Compounds (VOC)	Tons	These values come from Cal BC model 1 year and 20 year benefits.		7.00
Sulfur Dioxides (SOx)	Tons			3.00
Carbon Monoxide (CO)	Tons			106.00
Nitrogen Oxides (NOx)	Tons			236.00
Number of Fatalities	Number	0.358795	0.365	-0.006205
Fatalities per 100 Million VMT	Number	0.095867	0.097525	-0.001658
Number of Serious Injuries	Number	17.52	18.25	-0.73
Number of Serious Injuries per 100 Million	Number	4.68	4.88	-0.20
Jobs Created (only 'Build Required)	Number	1238	0	1238
Cost Benefit Ratio	Ratio	1.8	0	1.8
Existing Average Annual Vehicle Volume on	Percent	25,550,000	25,550,000	0
Existing Average Annual Truck Percent on	Percent	11	11	0
Estimated Year 20 Average Annual Vehicle on	Number	26,365,650	26,365,650	0
Estimated Year 20 Average Annual Truck	Number	11	11	0

Comparison of Approved vs Revised Outcomes

		2022 TCEP Application (Cycle 3)						New Scope and Cost Project Outcomes		
		ePPR (Performance Indicators & Measures)			Attachment 2 (Performance Metrics Form)			Managed TOL Model New scope & Cost project		
Indicator/Measure	**Unit**	**Build**	**Future No Build**	**Change**	**Build**	**Future No Build**	**Change**	**Build**	**Future No Build**	**Change**
Change in Daily Vehicle Hours of Delay	Hours	-0.23	1.15	-1.38	-0.23	1.15	1.38	89.764786	225.4236262	-135.6588402
Daily Vehicle Hours of Travel Time Reduction	Hours	0	0	0	0	0	0	0	0	0
Change in Daily Truck Hours of Delay	Hours	4.4	2.2	2.2	4.4	2.2	-2.2	0	0	0
Change in Truck Volume	#of Trucks	2,844,547	2,844,547		2,844,547	2,844,547	0	2,899,232	2,899,232	0
Change in Rail Volume	#of Trailers	0	0	0	0	0	0	0	0	0
Change in Rail Volume	#of Containers	0	0	0	0	0	0	0	0	0
Travel Time or Total Cargo Transport Time	Hours	79,128,000	55,264,000	23,864,000	79,128,000	55,264,000	-23,864,000	24,087,046,418.19	24,033,351,448.95	53,694,969.24
Particulate Matter	PM 2.5 Tons	0.02	0.015	0.005	These values come from Cal-BC model 1-year and 20-year benefits.		0,-1	These values come from Cal-BC model 1-year and 20-year benefits.		4.00
Particulate Matter	PM 10 Tons	0.079	0.058	0.021			0,-1			4.00
Carbon Dioxide (CO2)	Tons	147.86	105.903	41.957			-2,679,-53,575			270,122.00
Volitile Organic Compounds (VOC)	Tons	0	0	0			0,0			7.00
Sulfur Dioxides (SOx)	Tons	0	0	0			0,-1			3.00
Carbon Monoxide (CO)	Tons	0.17	0.126	0.044			2,45			106.00
Nitrogen Oxides (NOx)	Tons	0.084	0.058	0.026			+2,-38			236.00
Number of Fatalities	Number	0.4	0.6	-0.2	0	0	0	0.358795	0.365	-0.006205
Fatalities per 100 Million VMT	Number	0.312	0.359	-0.047	3.10%	1.40%	-1.70%	0.095867	0.097525	-0.001658
Number of Serious Injuries	Number	97	129	-32	97	129	-32	17.52	18.25	-0.73
Number of Serious Injuries per 100 Million	Number	14.8	15	-0.2	37%	33%	-4%	4.68	4.88	-0.20
Jobs Created (only 'Build Required)	Number	1490	0	1490	1492	0	1492	1238	0	1238
Cost Benefit Ratio	Ratio	0.9	0	0.9	1.1	0	1.1	1.8	0	1.8
Existing Average Annual Vehicle Volume on	Percent	13,289,270	13,289,270	0	64,000	64,000	0	25,550,000	25,550,000	0
Existing Average Annual Truck Percent on	Percent	19	19	0	16	16	0	11	11	0
Estimated Year 20 Average Annual Vehicle on	Number	17,306,957	17,306,957	0	84,000	84,000	0	26,365,650	26,365,650	0
Estimated Year 20 Average Annual Truck	Number	19	19	0	16	16	0	11	11	0
		Reported outcomes in Cycle 3 TCEP application J. Appendix 4 Project Programming Request			Reported outcomes in Cycle 3 TCEP application Attachment 2 Performance Metrics Form			Performance Outcomes with current scope (outputs) and cost		

Summary

This project was originally scoped to widen Interstate 5 in the Redding area for a truck-only lane each in direction of travel. The work would also include the installation of two truck Zero Emission Vehicle charging stations, installing Intelligent Transportation Systems facilities with lane management for emergency events, drainage improvements, four auxiliary lanes, upgrading median barrier and guardrail, pavement preservation, and upgrading signing and lighting

Under this proposed scope change, the original project limits in the TCEP application were expanded to encompass project limits that would exceed project needs, and conducting additional studies would be needed to determine the appropriate begin/end 'truck-only' lane limits. Upon evaluation of these studies and design refinement, it was confirmed the managed lanes for part-time 'truck only' operation was not warranted south of Route 44 on Interstate 5, due to the low truck traffic volumes. As a result, the project limits are now being adjusted to align with the proposed 'truck-only' lane limits and advanced signing. It should be noted that a change in the project limits was anticipated but could not be confirmed until the additional studies were performed.

There is a decrease in project limits and other operational improvements and associated work. However, this reduction in outputs is due to additional technical studies and design refinement that occurred after adoption and have been proven to show are no longer necessary.

The project has shown that benefits remain the same, thus still delivering within the original intent of the project.