

## MEMORANDUM

To: CHAIR AND COMMISSIONERS  
CALIFORNIA TRANSPORTATION COMMISSION

CTC Meeting: October 9, 2019

From: STEVEN KECK, Chief Financial Officer

Reference Number: 2.5d.(1), Action Item

Prepared By: Tony Tavares,  
District 04 – Director

Subject: **ALLOCATION FOR PROJECT WITH COSTS THAT EXCEED THE PROGRAMMED AMOUNT BY MORE THAN 20 PERCENT (PPNO 0481R / EA 0J710 – SOLANO COUNTY – INTERSTATE 80) RESOLUTION FP-19-20**

### **ISSUE:**

Should the California Transportation Commission (Commission) approve the California Department of Transportation's (Department) allocation request for \$33,456,000 for the State Highway Operation and Protection Program (SHOPP) Freight Program project, on Interstate 80 (I-80) in Solano County?

### **RECOMMENDATION:**

The Department recommends that the Commission approve the requested allocation for this SHOPP project.

### **PROJECT DESCRIPTION:**

As part of the Department's efforts to improve goods movement along the I-80 Freight Corridor in Solano County, accommodate large military and commercial permit vehicles, and to complete the last section of the Corridor upgrade from the Carquinez Strait to the Nevada border, this project will modify six bridges and approaches to increase the vertical clearances at six bridges. The six bridges are located at Magazine Street, Benicia Road, Georgia Street, Springs Street, Tennessee Street, and Redwood Street over-crossings. They will be upgraded to meet FHWA and Department standards as well as provide for U.S. Department of Defense (DOD) deployment needs for Strategic Highways and access to the Travis Air Force Base in Fairfield. The project is planned to be completed within 500 working days during two construction seasons.

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**FUNDING AND PROGRAMMING STATUS:**

The project was programmed in the 2018 SHOPP for a construction allocation in Fiscal Year (FY) 2018-19. The programmed project funds were \$15,951,000 in Construction Capital and \$1,859,000 in Construction Support. The project's Plans, Specifications and Estimate (PS&E) phase and an updated Engineer's Estimate (EE) were completed in June 2019. The Commission approved a four-month time extension for construction allocation at the June 2019 meeting. However, based on the most recent Engineer's Estimate (EE) and the updated estimates to deliver this project, the Department is requesting an allocation that exceeds the programmed funds by more than 20 percent. This allocation request is for \$30,034,000 for Construction Capital, which includes state furnished materials, mobilization and 10 percent contingency, and \$3,422,000 for Construction Support.

**REASON FOR COST INCREASE:**

There is an increase of \$14,083,000 for Construction Capital and \$1,563,000 for Construction Support, which is necessary for this project to complete the corridor upgrade in terms of updating bridges to the latest vertical clearance standards.

**Capital Cost Increase:**

This project was selected to be on a fast track delivery schedule to bring I-80 bridges along this corridor to current vertical clearance standards due to I-80's importance under the Department's 2017 Accelerated Bridge Delivery Program - Freight Corridor Improvement Program, and its proximity to DOD defense facilities. Originally, the project was planned to complete Project Approval and Environmental Document (PA&ED) in January 2018 and delivery of the project for construction was FY 2019-20. Because of the complexity of the project and the need to coordinate with the communities along the corridor, the PA&ED phase was not completed until July 2018, during the year of project delivery. As such, the Commission SHOPP Guidelines require that change management updates regarding scope cost or schedule be requested with this allocation action.

The original programming estimate of \$15,950,000 was based on a preliminary estimate of the scope, which was yet to be fully developed and required significant augmentation at both the environmental and design phases, as risks and assumptions were made to keep the project on an accelerated track which are described on the following page.

In addition, during final design refinements and constructability analyses, it was determined that it would be required to double the working days for each bridge, inclusive of approach conform work that was initially underestimated. Additionally, as the traffic impacts would be affecting the City of Vallejo the most, it was decided that no more than one bridge may be worked on at any given time, precluding any potential time savings of concurrent work on multiple bridges. This doubled construction duration from one season to two seasons, significantly increasing the duration-sensitive and public-convenience related costs. The categories that are contributing most to the cost increase are outlined below.

**Structures and Earthwork: (\$6,000,000)**

Methods to provide temporary support during bridge raising and stage construction have been changed for all six bridge locations. During design, the approach slabs for five bridges were

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modified and reconstructed to meet the most recently adopted standards. In addition, the Bridge Cost Index almost doubled from when the project began PA&ED in 2016 to 2018. More earthwork is now expected to be required than what was estimated in the programming document. The EE also includes unit price increases per current market trends for the structure items.

**Traffic Control, TMP (COZEEP), Shuttle Service: (\$4,000,000)**

Doubling the time of work at each of the six locations will increase items associated with traffic management. In addition, to provide connectivity and access for the local pedestrians/bicyclists impacted by four-month closures of each bridge, it was agreed upon that the project will provide a temporary shuttle service.

**Electrical and Pavement: (\$3,000,000)**

Six flashing safety beacons at six bridge approaches will need to be relocated, which was not identified in the programming document. Also adding to the costs, quantities for replacing and relocating existing conduits and loop detectors were significantly increased. The pavement conditions re-evaluation resulted in more dig-out locations, increasing structural section quantities. The EE also includes unit price increases per current market trends.

**Construction Support Cost Increase:**

Construction support is a time sensitive cost and proportional to project duration. The increase from \$1,859,000 to \$3,422,000 reflects the added resources needed for a longer construction period due to the increase in the number of working days from 250 days to 500 days, which requires two construction seasons instead of the originally planned one season.

**Analysis of Alternatives:**

The Department considered re-scoping or reprogramming portions of this project but has determined that this request for additional programming will allow the Department to meet the purpose and need of the project, to provide the latest vertical clearance standards to promote efficient and safer freight movement throughout the I-80 Corridor, north of the Carquinez Strait to the Nevada border. In addition, delivering the project as planned in all six locations, will minimize disruption to traffic over just the two construction seasons, instead of the many years it would take to deliver six separate projects. In addition, splitting the project would also result in higher overall costs.

**CONSEQUENCES:**

The Department has determined that the requested additional funds are in the best interest of the State to avoid delays in implementing this important project and avoid extra cost to reprogram and re-advertise. The Department has exercised all feasible measures to minimize costs in carrying out work related to this project and has determined that this request is well-supported and is the only viable alternative available.

If this allocation request for \$33,456,000 is not approved, the Department will not be able to advertise this SHOPP Accelerated Freight Program project. There are no feasible alternatives available if this allocation request is not approved. The Department would need to down scope the project or split it, which would cause a negative impact to freight

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movement along this corridor and realizing the full benefit over many years would be at a cost to the Department and public, as the over-height military and commercial permit vehicles would not be able to travel continuously along I-80 under non-standard overcrossings.

**FINANCIAL RESOLUTION:**

Resolved, that \$30,034,000 be allocated from the Budget Act of 2019, Budget Act Item 2660-302-0890 for construction, and \$3,422,000 for construction engineering to provide funds to advertise the project.

Attachment

**2.5 Highway Financial Matters**

Project No.	Allocation Amount	County	Dist-Co-Rte	Postmile	Location	Project Description	Project Support Expenditures	PPNO Program/Year Phase Prgm'd Amount	Budget Year	Amount by
								Project ID	Item # Fund Type	Fund Type
								Adv Phase	Program Code	
								EA		

**2.5d.(1) Allocations for Projects with Cost Increase Greater than 20 Percent**

**Resolution FP-19-20**

1	\$33,456,000	Solano	04-Sol-80	1.8/4.4	In Vallejo, from Magazine Street Overcrossing No. 23 -0066 to Redwood Street Overcrossing No. 23-0114.	04-0481R	505-3290 RMRA	\$3,422,000		
					<u>Outcome/Output:</u> Increase vertical clearance at six overcrossing structures to improve mobility for over-height military and commercial permit vehicles.	SHOPP/18-19	20.10.201.322			
					ACCELERATED BRIDGE	CON ENG	2019-20			
						\$1,859,000	302-3290 RMRA	\$30,034,000		
						CONST	20.20.201.322			
						\$15,951,000				
						0414000029				
					Preliminary	4				
					<u>Engineering</u>	0J710				
					<u>PA&amp;ED</u>					
					<u>Budget</u>					
					<u>Expended</u>					
					PA&ED	\$2,100,000				
					PS&E	\$2,154,000				
					R/W Sup	\$154,000				
						\$0				

(CEQA - CE, 5/29/2018; Re-validation 6/13/2018)  
 (NEPA - CE, 5/29/2018; Re-validation 6/13/2018)

(SB 1 Baseline Agreement approved under Resolution SHOPP-P-1819-04B; October 2018.)

(Four month time extension for CONST and CON ENG approved under Waiver 19-29; June 2019.)

Performance Measure: Bridges (6 bridge(s))					
	<u>Unit</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Quantity</u>
Existing Condition	Square feet	0.0	0.0	75,412.0	75,412.0
Post Condition	Square feet	75,412.0	0.0	0.0	75,412.0