

## MEMORANDUM

To: CHAIR AND COMMISSIONERS  
CALIFORNIA TRANSPORTATION COMMISSION

CTC Meeting: October 9, 2019

From: STEVEN KECK, Chief Financial Officer

Reference Number: 2.5d.(2), Action Item

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District 07 – Director

Subject: **ALLOCATION FOR PROJECT WITH COSTS THAT EXCEED THE PROGRAMMED AMOUNT BY MORE THAN 20 PERCENT (PPNO 4496 / EA 29130 – VENTURA COUNTY – STATE ROUTE 33) RESOLUTION FP-19-21**

### **ISSUE:**

Should the California Transportation Commission (Commission) approve the California Department of Transportation's (Department) allocation request for \$5,463,000 for the State Highway Operation and Protection Program (SHOPP) Bridge Scour Mitigation project on State Route (SR) 33, in Ventura County?

### **RECOMMENDATION:**

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

### **PROJECT DESCRIPTION:**

This project is located on SR 33; a rural two-lane highway in an environmentally sensitive area in Ventura County. The project will remediate bridge foundation scour at the San Antonio Creek Bridge by replacing the existing bridge's sub-structure; which consists of four pier wall supports with new bent column substructure. The project will also replace the existing, non-standard, wooden bridge railing with standard concrete bridge barriers.

The project requires permits from multiple resource agencies, which includes the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the California Regional Water Quality Control Board, and the California Department of Fish and Wildlife (CDFW). All of the environmental permits and agreements have been acquired, and

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the project is planned to be completed within 350 working days, during two construction seasons.

**FUNDING AND PROGRAMMING STATUS:**

The project is currently programmed in the 2018 SHOPP for \$2,460,000 in construction capital and \$1,460,000 in construction support for delivery in Fiscal Year 2018-19 for a total of \$3,920,000. In June 2019, the Commission approved a 6-month time extension to allow the Department to secure all the environmental permits before requesting the allocation of funds to construct the project.

The Plans, Specifications, and Estimates (PS&E) phase has been completed, and the project was Ready to List (RTL) on June 28, 2019. 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 \$5,463,000, of which \$3,598,000 is for construction capital and \$1,865,000 for construction support.

**REASON FOR COST INCREASE:**

The increases in both capital and support costs for this project are primarily due to scope changes that were necessary to secure all required permits to deliver the project.

At the early design phase, the Department proposed to extend the ends of each pier wall to mitigate the bridge scour problem and strengthen the bridge footings. However, during the final design phase, CDFW expressed concerns about inadequate fish passage. CDFW required the complete removal and replacement of the existing bridge. They were concerned that the existing bridge pier walls were contributing to the formation of turbulent flow that causes streambed erosion and pockets around the pier walls. These pockets cause fish to become trapped.

The fish passage issues raised by CDFW were at a time when it was too late for the Department to request a SHOPP amendment to modify the cost and scope of the project. Furthermore, the Department assessed the condition of the existing bridge, and determined that a complete bridge replacement was premature, and the cost of replacing a bridge in good condition was not in the best interest of the State.

The Department conducted extensive negotiations with CDFW to obtain the necessary permits and reviewed several less costly alternatives to meet their requirements. The Department then proposed a revised design that minimizes the footprints in the streambed by replacing each pier wall with a two-column outrigger bent to support the existing bridge. The Department will then remove all existing pier walls and from underneath the bridge and re-grade the streambed to meet all regulatory permit requirements and provide improved fish passage.

CDFW approved the revised plans and agreed to withdraw the full bridge replacement requirement.

The cost increase to construct the revised bridge design and implement this agreement includes \$1,138,000 in capital cost, and \$405,000 support cost, as explained in further details below.

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**Capital Cost Increase:**

The construction capital cost increase of \$1,138,000 reflects the added cost to demolish and remove four pier walls and their footings from underneath the existing bridge. The cost increase also includes stream-bed cleaning and re-grading to facilitate improved fish passage and meet the CDFW permit requirements.

**Capital Outlay Support Cost Increase:**

The support cost increase of \$405,000 is due to the need for additional resources to perform the additional work required by the expanded scope. These added resources were also needed for a longer construction period due to the increase in the number of working days from 245 to 350 working days, which requires two construction seasons instead of the originally planned one season.

**Analysis of Alternatives:**

The Department assessed the condition of the existing bridge and determined that the revised plans offer the best alternative to remediate bridge scour and mitigate the CDFW fish passage permit requirements.

By removing the existing piers and by using columns to support the bridge instead, the Department will improve the service life of the bridge while minimizing the bridge foundation foot prints in the stream bed, which will allow for improved fish passage.

By constructing the new column bents to support the existing, good-condition bridge deck, the bridge will have an additional 35 years of service life, and will accommodate, and reduce the cost of future bridge widening or bridge deck replacement.

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.

**CONSEQUENCES:**

If this request for an allocation exceeding the programmed funds is not approved, the Department will not be able to advertise this (SHOPP) Bridge Scour Mitigation project.

**FINANCIAL RESOLUTION:**

Resolved, that \$3,589,000 be allocated from the Budget Act of 2018, Budget Act Item 2660-302-3290 for construction, and \$1,865,000 for construction engineering, to provide funds to advertise the project.

Attachment

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