State of California
DEPARTMENT OF TRANSPORTATION

Business, Transportation and Housing Agency

Memorandum

TAB 139

To: CHAIR AND COMMISSIONERS
CALIFORNIA TRANSPORTATION COMMISSION

PASSED BY
CTC
JUN 1 1 2013
CALIFORNIA
TRANSPORTATION COMMISSION

CTC Meeting: June 11, 2013

Reference No.: 2.5d.
Action Item

From: NORMA ORTEGA
Chief Financial Officer

Prepared by: Rachel Falsetti
Division Chief
Transportation Programming

Subject: **ALLOCATION FOR PROJECTS WITH COSTS GREATER THAN 120 PERCENT OF THE PROGRAMMED AMOUNT**
RESOLUTION FA-12-26

RECOMMENDATION:

The California Department of Transportation (Department) recommends that the California Transportation Commission allocate $8,800,000 for one State Highway Operation and Protection Program (SHOPP) project identified below.

ISSUE:

Funds are needed for one programmed project in order to advertise the construction contract.

RESOLUTION:

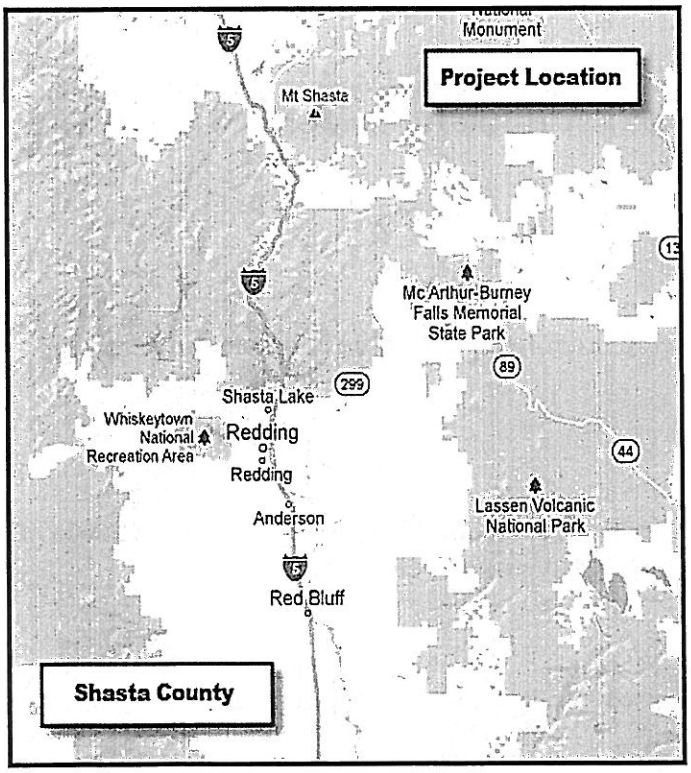
Resolved, that $8,800,000 be allocated from the Budget Act of 2012, Budget Act Item 2660-302-0042 and 2660-302-0890, to provide funds for the project identified below.

Project	Dist-Co-Rte	Original Programmed Amount	Current Programmed Amount	Program Adjustment	Revised Programmed Amount	% Increase Above Current Programmed Amount
1	02-Sha-5	$6,100,000	$6,100,000	$2,700,000	$8,800,000	44.3%

Project # / Allocation Amount / County / Dist-Co-Rte / Postmile	Location / Project Description	PPNO / Program/Year / Prgm'd Amount / Project ID / Adv Phase / EA	Budget Year / Item # / Fund Type / Program Code	Amount by Fund Type
2.5d.	**Allocation for Projects with Costs that Exceed 120 Percent of Programmed Amount**			**Resolution FA-12-26**
1 $8,800,000 Shasta 02-Sha-5 Var.	In Shasta and Siskiyou Counties, at various locations. Outcomes/Outputs: Rehabilitate bridge decks, replace joint seals, repair unsound concrete pavement, clean and paint steel components at 22 locations to maintain structural integrity and extend serviceability and useful life of the structures.	02-3487 SHOPP/12-13 $6,100,000 0200020318 4 4E5304	2012-13 302-0042 SHA 302-0890 FTF 20.20.201.119	$176,000 $8,624,000

RECOMMENDATION:

The Department recommends that this request for $8,800,000 be approved to allow this project to be advertised.



PROJECT DESCRIPTION:

This project is in Shasta and Siskiyou Counties, on Route 5 at various locations. The purpose of this project is to repair the damaged bridge deck and perform preventive maintenance in order to extend the useful life of these structures. This project will remove and replace damaged overlays and repair unsound concrete; place new polyester concrete overlays and/or methacrylate sealant and replace joint seals; clean and paint steel components and repair abutment back wall and reset bearings.

FUNDING STATUS:

This project is currently programmed in the 2012 SHOPP for $6,100,000. This request for $8,800,000 is an increase of 44.3 percent above the programmed amount.

The project estimate has increased by $2,700,000, from $6,100,000 to $8,800,000. The scope of work and the items of work propose in this project were underestimated. The change is due to inadequate assumptions made on the original estimate, low unit item costs used to develop the original estimate and increase in item quantities for both structure and roadway work.

REASON FOR INCREASE:

The cost increase is primarily due to increases in traffic control, mobilization, time related overhead, paving, and structures items:

- Additional working days, temporary K-railings and temporary striping were needed at 11 of the bridge locations. The original estimate assumed approximately 50 working days to complete the project. The original estimate for working days did not account for the entire scope of work, tiime needed for traffic control, and the complexity and environmental sensitivity of painting the Sacramento Bridge on State Route 273. The new estimate is 240 working days. This added $640,000 to the cost of the project.

- Mobilization was originally based only on the roadway cost items and did not consider the structure cost items. This oversight increased the mobilization cost from $136,000 to $769,000. This added $633,000 to the cost of the project.

- Due to inadequate assumptions made during project development, low unit item costs were used to develop the original estimate. This added $400,000 to the cost of the project.

- Eleven bridge locations require removal of asphalt concrete from the bridge decks and modification to the approach pavement and guardrails. The original estimate assumed approximately three inch thickness of asphalt concrete would be removed from the decks and approaches. However, after core samples were taken, it was discovered that thickness varied from 5 inches to 7 inches. This resulted an increase of item quantities associated with the paving work. This added $356,000 to the cost of the project.

- During project development, a visual inspection identified issues with the bearing supports on one of the bridge abutments and broken concrete on top of the abutment back wall. After further investigation, it was discovered that the issue was a broken abutment back wall and the shifting of the entire approach fill. This resulted in an increase scope of work to repair the bearing supports. The original estimate assumed $50,000 to repair the bearing supports. The actual repair is estimated to cost $160,000. This added $110,000 to the cost of the project.

- The original estimate assumed a painting cost of $13 per square foot. Recent bid results from other contracts of similar work have resulted in prices averaging $16 per square foot. This added $285,000 to the cost of the project.

- Time related overhead, a required item for projects over $5,000,000, was not included in the original estimate. This added $276,000 to the cost of the project.

After programming the project, errors were found in the number of working days, mobilization, and many of the item unit costs, which lead to the issues above. Subsequently, the Department reviewed the estimating process used for this project as well as other Bridge Preventive Maintenance projects. This prompted the Department to make corrections to the procedures used in developing future Bridge Preventive Maintenance project initiation documents. Development now includes a scope and estimate review and validation by members of a diverse functional team prior to approval.

FUNDING OPTIONS:

OPTION A: Approve this request, as represented above, for $8,800,000 to allow this project to be advertised.

OPTION B: Deny this request and direct the Department to adjust the project to remain within the programmed amount. The Department has considered this option and determined that reducing the scope of work on this project, and executing another project to complete the deleted work later, would result in greater costs and more disruption to the traveling public.

RECOMMENDED OPTION

The Department recommends that this request for $8,800,000, as presented in Option A above, be approved to allow this project to be advertised.