

M e m o r a n d u m

To: CHAIR AND COMMISSIONERS
CALIFORNIA TRANSPORTATION COMMISSION

CTC Meeting: May 17-18, 2017

Reference No.: 2.1a.(1b)
Action Item

From: NORMA ORTEGA
Chief Financial Officer

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Subject: **ACCELERATED BRIDGE DELIVERY TO IMPROVE FREIGHT MOVEMENT
SHOPP AMENDMENT 16H-013**

ISSUE:

Should the California Transportation Commission (Commission) approve a request by the California Department of Transportation (Department) to amend the State Highway Operation and Protection Program (SHOPP) in accordance with SHOPP Amendment 16H-013?

RECOMMENDATION:

The Department recommends that the Commission approve SHOPP Amendment 16H-013 that will amend the SHOPP Program, in accordance with Senate Bill 486, which requires the Commission to approve any changes to existing SHOPP projects or to adopt new projects, through amendment, into the SHOPP. This amendment would fund the Project Approval and Environmental Document (PA&ED) phase from SHOPP Programming Capacity for 22 bridges on Interstates 5 and 80 at specified locations to bring the bridges to current standards for vertical clearance and load-carrying capacity in order to eliminate lengthy, time-consuming and costly detours for goods movement on these high priority freight corridors.

PA&ED FY 2017-18 (\$1,000)	No. Bridges	Anticipated Future Support (\$1,000)	Anticipated Capital (\$1,000)	Total (\$1,000)
\$31,985	22	\$150,271	\$538,489	\$720,745
		Future Programming		

BACKGROUND:

Goods movement is essential to the economies of California and the nation, with approximately one third of the state’s economy directly supported by the freight industry. The state’s highways are a critical component of the California’s goods movement system, linking to the rest of the nation through key Interstate routes that are part of the federally designated Primary Highway Freight System (PHFS). Interstates 5 and 80, part of this system, provide vital connections between California’s regions and between our seaports and other states. The routes handle very high truck volumes.

Sections of these two corridors have vertical clearance and load-carrying restrictions at numerous bridges that hinder the continuous movement of large or heavy freight loads along the corridors. The bridges in question do not meet current Interstate design standards for vertical clearance and/or load-carrying capacity or have structural deficiencies that necessitate repair. Taken together, the series of bridges create extensive portions of the highway that are not useable by larger or heavier loads, necessitating lengthy detours for trucks carrying these loads to circumnavigate around the bridges. Detour routes require an additional hour to four hours travel time for each truck trip, assuming no traffic congestion or other delays. The time required for the extra travel has a monetary cost for the drivers, equipment use, extra fuel consumed, delay in the delivery of the goods, and facility damage to other facilities that are not constructed to Interstate pavement standards. The longer trips also generate extra greenhouse gas emissions and other pollutants and may create safety problems along the detour routes.

To address this problem, the Department is pursuing an Accelerated Bridge Delivery- Freight Corridor Improvement Program under the auspices of Senate Bill 1. The Department is moving in an expeditious manner to accelerate the repair or replacement of the series of bridges in order to bring the entire corridor segment up to current vertical clearance and load-carrying capacity for all the bridges on these Interstate segments. The identified bridges are also aging (over 50 years) and constitute a part of the 500 bridges that need to be fixed as part of Senate Bill 1 requirements. Importantly, the bridge improvements will help the Department meet its asset Management performance targets as required by Senate Bill 1, the Commission's adopted asset performance goals, the Department's State Highway System Management Plan, and Senate Bill 486. The specific expected performance that will be achieved for each of the 22 bridges will be documented in the PA&ED process, tracked through the full development process and reported to the Commission at project completion.

To achieve delivery acceleration, the program proposes to place these SHOPP-eligible bridge projects on a high priority, fast-track project delivery queue. Amending these bridges into the SHOPP now will enable Environmental surveys to start expeditiously to align with the Spring and Fall study schedules, thus initiating the accelerated delivery schedule and expediting the SHOPP delivery cycle.

Under this program, the Department will evaluate the appropriateness of innovative project delivery options such as Design-Bid-Build, Construction Manager-General Contractor, and Design-Build to accelerate project delivery. Projects will employ innovative engineering solutions such as fast bridge replacements and/or strengthening, or roadway modifications to upgrade the bridges' load-carrying capacity and vertical clearance conditions to the current standards. After completion of the improvements, these freight corridors will provide improved efficiency in freight movement by eliminating the need for detour routes that distribute trucks onto other non-freight principal arterials and local roads. As an outcome, the projects will generate time savings and reduction in time delay costs, improve traffic flow and traffic safety to motorists and local and regional businesses and communities around the detour routes.

Attachment

List of New 2016 SHOPP Amendments

No. PPNO	Dist-Co-Rte PM EA Project ID	Project Location and Description of Work	R/W Cost Const. Cost (\$1,000)	FY	Support Costs (\$1,000)	Program Code Leg./Congr. Dists. Perf. Meas.
Bridge Preservation						
1 1460R	4-Ala-80 Var 4K810 04 1700 0363	In Oakland, at the Routes 80/580/680 MacArthur Maze (Bridge No. 33-0061R, 33-0061L, 33-0061L and 33-0611L). Establish standard vertical clearance. PA&ED: 01/01/2019 R/W: 05/01/2020 RTL: 06/01/2020 BC: 02/01/2021	\$500 (R/W) \$105,489 (C)	19-20	PA&ED \$6,600 PS&E \$7,800 RW Sup \$260 Con Sup \$7,800 <u>Total</u> \$22,460	201.322 Assembly: 18 Senate: 9 Congress: 13 4 Bridge(s)
2 1452H	4-Ala-80 5.8 2K830 04 1700 0030	In Berkeley, at University Avenue Overcrossing No. 33-0023. Establish standard vertical clearance. PA&ED: 01/01/2019 R/W: 05/01/2020 RTL: 06/01/2020 BC: 12/01/2020	\$35 (R/W) \$27,678 (C)	19-20	PA&ED \$3,380 PS&E \$3,000 RW Sup \$300 Con Sup \$5,400 <u>Total</u> \$12,080	201.322 Assembly: 14,15 Senate: 3,9 Congress:13 1 Bridge(s)
3 1452F	4-SoI-80 1.1 2K840 04 1700 0031	In Vallejo, at Route 80/29 Separation Bridge No. 23-0087. Replace bridge. PA&ED: 12/14/2018 R/W: 05/29/2020 RTL: 06/26/2020 BC: 11/30/2020	\$15 (R/W) \$11,922 (C)	19-20	PA&ED \$2,057 PS&E \$2,624 RW Sup \$22 Con Sup \$2,416 <u>Total</u> \$ 7,119	201.322 Assembly: 14 Senate: 3 Congress: 5 1 Bridge(s)
4 6877	6-Ker-5 12.5 0W460 06 1700 0225	Near the Grapevine, at the California Aqueduct No. 50-0321L/R. Improve to standard load capacity. PA&ED: 04/01/2018 R/W: 07/01/2018 RTL: 08/01/2018 BC: 12/15/2018	\$10 (R/W) \$4,100 (C)	18-19	PA&ED \$1,910 PS&E \$430 RW Sup \$10 Con Sup \$1,000 <u>Total</u> \$3,350	201.322 Assembly: 32 Senate: 14, 16 Congress: 21, 23 2 Bridge(s)

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Bridge Preservation (cont.)						
5 6876	6-Ker-5 R15.8 0W430 06 1700 0222	Near the Grapevine, at the Route 5/99 Separation No. 50-0240 R. Lower roadway profile to obtain standard vertical clearance. PA&ED: 04/01/2018 R/W: 07/01/2018 RTL: 08/01/2018 BC: 12/15/2018	\$10 (R/W) \$4,500 (C)	18-19	PA&ED PS&E RW Sup Con Sup Total \$1,600 \$470 \$10 \$1,200 \$3,280	201.322 Assembly: 32 Senate: 14, 16 Congress: 21, 23 1 Bridge(s)
6 5281	7-LA-5 27.0/66.5 34210 07 1700 0244	In Los Angeles County, at various locations. Establish standard vertical clearance. PA&ED: 10/01/2018 R/W: 02/28/2020 RTL: 03/20/2020 BC: 10/30/2020	\$152,980 (R/W) \$221,390 (C)	19-20	PA&ED PS&E RW Sup Con Sup Total \$15,640 \$41,760 \$10,980 \$61,790 \$130,170	201.322 Assembly: 32, 34, 36, 38, 39, 46 Senate: 16, 18, 21, 25, 27 Congress: 23, 25, 28, 29 10 Bridge(s)
7 3235	10-SJ-5 10.7/R21.4 1H340 10 1700 0113	In and near Lathrop, at Deuel Overhead No. 29-0262R/L and Mathews Road Undercrossing 29-0218L. Improve to standard truck capacity. PA&ED: 12/30/2017 R/W: 03/15/2018 RTL: 04/15/2018 BC: 08/22/2018	\$450 (R/W) \$9,410 (C)	17-18	PA&ED PS&E RW Sup Con Sup Total \$798 \$935 \$75 \$1,989 \$ 3,797	201.322 Assembly: 17 Senate: 5 Congress: 11 3 Bridge(s)