



Agenda Item 5

Joseph P. Bort MetroCenter
101 Eighth Street
Oakland, CA 94607-4700
TEL 510.817.5700
TDD/TTY 510.817.5769
FAX 510.817.7848
E-MAIL info@mtc.ca.gov
WEB www.mtc.ca.gov

Memorandum

TO: BATA Oversight Committee

DATE: May 6, 2015

FR: Deputy Executive Director, Operations

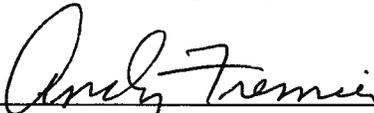
W. I. 1256

RE: Toll Bridge Seismic Retrofit Program Update

Staff will provide to the Committee an update on the San Francisco-Oakland Bay Bridge East Span Seismic Replacement Project.

- A. On the Self-Anchored Suspension Span, contract completion is pending resolution of the discovery of water and adequacy of grouting around anchor rods at the base of the tower. The tower foundation was constructed under two separate contracts. Fabrication and installation of the foundation box, including the tower anchor rods, was performed by contractor KFM under the E2/T1 Foundation contract and completed in January 2008. Grouting and final loading of the rods, along with the rest of the Self-Anchored Suspension Span, was performed by contractor ABF, who are still under contract. As reported to the Committee in late 2014, the Caltrans has been investigating and testing both the rods and grout.
- Two tower anchor rods have been extracted from the foundation for testing. Some micro-cracking was observed during inspection by a scanning electron microscope. Testing has not yet been completed to determine the significance of these microscopic results.
 - All remaining tower anchor rods have been measured using non-destructive ultra-sonic testing to determine their status. Out of the 422 remaining rods, one rod measured six inches shorter than expected.
 - Initial tests performed in 2014 on water taken from around the anchor rods did not show any significant levels of chlorides indicating the presence of fresh water. More recent tests of water have shown elevated levels of chlorides. While the tested chlorides levels have not reached the level of sea or bay water, they suggest the possibility of salt water intrusion at some rod locations.
 - At this point, investigations and additional testing is on-going.
- B. On dismantling of the old span, Caltrans is proceeding on a number of contracts to remove the old bridge.
- The main cantilever truss and Yerba Island detour structures are nearly completely removed. Construction of the new eastbound on-ramp and bike path from the island is on-going.
 - Caltrans recently awarded a \$69.5 million low-bid contract to dismantle the 504' and 288' trusses back to the Oakland shoreline. The awarded contract was \$23.5 million less than the engineer's estimate.
 - Caltrans has been in discussions with environmental regulatory agencies to remove the Pier E3 footing. Caltrans is recommending that the footing above water to be removed by conventional means (i.e. jack hammers), while the below water hollow caisson be imploded in place to a

point below the mud line of the bay. This process is anticipated to have the least amount of impact to the environment and to be the least costly. The implosion process will first be demonstrated on Pier E3 and repeated on the remaining bridge.



Andrew B. Fremier

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