

Bay Area Toll Authority Oversight Committee

April 13, 2022

Agenda Item 3a - 22-0513

Toll Bridge Program Report

Subject:

Staff will present the Toll Bridge Program Report and review current conditions and projects on the seven state-owned toll bridges.

Background:

In June 2021, the Authority adopted the BATA Recovery Ad Hoc Work Group's Action Plan that recommended developing detailed bridge asset management plans for all the toll bridges to better understand the future needs of the bridges and potential needs for future funding. A near-term, next step action was for staff to provide a high-level review of the current condition and rehabilitation needs of the bridges.

For this review, staff has developed with Caltrans an initial Toll Bridge Program Report on the current state of the bridges and an update on toll bridge rehabilitation projects. To prepare the Authority for the report, BATA and Caltrans hosted a March 23 BATA Oversight Committee Asset Management Workshop with in-depth background on current practices, including inspection, condition determination, and project identification, that are the basis for the bridge condition ratings as well as for determining the projects in the Rehabilitation Program. This regular, highly detailed work is the key foundation for the kind of asset management decision making tools and processes sought by the Authority and that Caltrans and BATA plan to further improve as part of the development of the Toll Bridge Asset Management Plans.

The Toll Bridge Program Report provides the current bridge condition rating from the Federal Highway Administration (FHWA) National Bridge Inventory. The bridge condition rating is determined by element level inspections of the bridges by Caltrans Bridge Maintenance Engineers, licensed by the State of California and certified for this work. The bridges are routinely inspected every two years in compliance with state and national standards.

It is important to highlight the FHWA bridge condition ratings are not safety ratings and that a poor rating does not mean the bridge is unsafe. Safety determinations are made by Caltrans Bridge Maintenance Engineers who continuously monitor the bridges every day. Any structural safety deficiency is addressed at time of discovery.

The FHWA bridge condition rating is a tool to help record and track deterioration and prioritize projects and funding. Accordingly, the recent Bipartisan Infrastructure Law utilized the bridge condition ratings in the National Bridge Inventory, including our toll bridges, to apportion Federal bridge funding to the states.

The bridge component condition ratings are dynamic and anticipated to change over time. Even with preventive maintenance, bridge condition can be expected to deteriorate over time due to use, environmental exposure and normal wear and tear. Conversely, bridge component condition ratings may improve after component rehabilitation or replacement.

Our toll bridges are complex structures that are likely to include different structural types and systems. Inspections, observations, and ratings are performed at the element level across all the miles of bridges in the system. The element level inspection data is used as the basis for determining the component condition ratings. The bridge components are the deck, superstructure, and substructure of each bridge. The overall condition rating for each bridge reflects the lowest of the three component ratings.

FHWA's guidelines calls for rating the bridge components on a 0 to 9 scale. If the rating is greater than or equal to 7, the bridge is classified as Good; if it is less than or equal to 4, the classification is Poor. Bridges rated 5 or 6 are classified as Fair."

The BATA Caltrans Toll Bridge Rehabilitation Program provides for on-going funding to maintain the structural integrity of the bridges and approaches, secure and update the bridge facilities, and upgrade the revenue collection system for the bridges. BATA and Caltrans work closely to identify critical needs based on bridge inspections to prioritize funding and delivery of projects. The Toll Bridge Report provides updates on current rehabilitation projects in construction.

BATA and Caltrans are working on developing detailed bridge asset management plans for all of toll bridges to help us better quantify and plan for the needs of the bridges. While this report focuses on the near term condition of the bridges, more detailed lifecycle and risk analyses on all the spans, including planning for replacement, have already begun. As the asset management plans are completed, the information will be incorporated into future Toll Bridge Program Reports.

Recommendation:

Information

Attachments:

1. Toll Bridge Program Report
2. PowerPoint Presentation



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