

Bay Area Toll Authority
Oversight Committee

November 8, 2023

Agenda Item 5a - 23-1234

Richmond-San Rafael Bridge Updates

Subject:

A status report on BATA’s Richmond-San Rafael (RSR) Bridge Access Improvement Pilot, RSR Forward projects, and considerations for a westbound third lane on the bridge.

Background:

The 5.5-mile long RSR Bridge has served the needs of North Bay and East Bay travelers for over 65 years. BATA has been collaborating with partner agencies including Caltrans, Transportation Authority of Marin (TAM), and Contra Costa Transportation Authority (CCTA) on a series of projects and programs that work collectively to manage the bridge and improve mobility in the corridor.

Staff have previously presented to the BATA Oversight Committee, as well as TAM and CCTA, in October 2021 and November 2022. New developments and progress on these initiatives are highlighted below. Staff will provide a similar update to TAM and CCTA in December.

1. RSR Bridge Access Improvement Pilot Projects

In 2014, BATA took responsibility for funding and implementing the Interstate 580 (I-580) RSR Bridge Access Improvement Projects, a pilot undertaken in partnership with Caltrans with the goals to address traffic congestion and provide bicycle and pedestrian access to and across the bridge, consistent with core strategies in Plan Bay Area 2050. The partners committed to a four-year pilot, which started November 2019 with the opening of the multi-use path on the upper deck of the bridge. This month marks the end of the 4-year pilot period.

Next steps for the Pilot include completion of the UC Berkeley PATH final report in Summer 2024 followed by a final evaluation by BATA and Caltrans in conjunction with TAM and CCTA on the performance of each element of the access projects to determine by the end of 2024 whether to keep, modify, or eliminate elements of these projects. In addition, Caltrans

is reviewing whether bridge strengthening may be needed to accommodate the moveable barrier on a permanent basis.

The pilot consists of the following improvements:

- **Peak Period Use Lane (Bridge Lower Deck)** – approximately \$6M of capital costs to convert shoulder lane to a peak-period use lane in April 2018, which eliminated eastbound traffic congestion – reducing travel time by up to 14 minutes during the peak period.
- **Multi-Use Bicycle and Pedestrian Path (Bridge Upper Deck)** – approximately \$10M of capital costs to convert shoulder lane to a two-way multi-use bicycle/pedestrian path in November 2019, creating a new route across the Bay and a vital link in the 500-mile San Francisco Bay Trail and connected with MTC’s continuous 3,244 mile All Ages and Abilities Active Transportation Network. With seasonal highs and lows, usage of the path has averaged 60 to 90 bicycle trips/day on weekdays and 150 to 300 bicycle trips/day on weekends. The path is separated from vehicular traffic by a moveable concrete barrier system that accommodates bridge maintenance.

Caltrans employed UC Berkeley PATH to conduct a study of these pilot projects:

- **Phase I Pilot Study Report** – published in October 2022 on the Caltrans Division of Research, Innovation and System Information (DRISI) website (https://dot.ca.gov/-/media/dot-media/programs/research-innovation-system-information/documents/final-reports/ca22-3141_final_reportv3-a11y.pdf).
- **Phase II Pilot Study Final Report** – ongoing, with completion expected in Summer 2024. The Phase II Final Report will include evaluation of the Sir Francisco Drake Blvd. Overpass Bike Path in Marin County that opened in August 2020.

In conjunction with the pilot projects, BATA also has implemented permanent improvements on both bridge approaches in Marin and Contra Costa counties:

- **Eastbound Improvements** – approximately \$30M of capital costs to widen and modify the on/off ramps along eastbound I-580 to accommodate the bridge lower deck improvements.

- **Bicycle and Pedestrian Access** – approximately \$17M of capital costs to improve the connections from the bridge to the existing pedestrian and bicycle networks in the cities of Richmond and San Rafael. BATA staff are seeking approval from the Committee this month to award a contract to construct a sidewalk widening project along East Francisco Blvd. in the City of San Rafael. (See agenda item 4b.)

2. **RSR Forward:**

The RSR Forward initiative offers a suite of near-term strategies to improve travel options in the bridge corridor, consistent with Plan Bay Area 2050 strategies to provide transit priority, while also improving travel and safety for general traffic:

- **Open Road Tolling (ORT) and High Occupancy Vehicle (HOV)** – expected to open in Winter 2026, this project will provide safety and operational improvements on the westbound I-580 bridge approach by replacing the existing toll plaza with ORT and reinstating the previous HOV Lane along westbound I-580 to encourage carpooling and transit ridership with an average travel time savings of up to 12 minutes for transit/carpool and up to 5 minutes for general traffic.
- **Richmond Parkway Interchange** – expected to open in Spring 2026, this project recently completed a Design Alternative Assessment that evaluated various ways to improve Richmond Parkway Interchange traffic accessing westbound I-580. Using Regional Measure 3 funding, this project is moving forward and is expected to provide average travel time savings of up to 5 minutes for transit/carpool and up to 2 minutes for general traffic.
- **Transit Improvements** – ongoing transit improvements, with Regional Measure 3 funding, include projects with Golden Gate Transit in coordination with CCTA, City of Richmond, and AC Transit on transit signal priority and bus stop improvements on Cutting Boulevard in the City of Richmond (between El Cerrito Del Norte BART station and I-580).
- **Bicycle Infrastructure Improvements** – RSR Forward also implements a variety of infrastructure improvements and programs to support biking across the bridge corridor through incentives on e-bike purchases and bike trips across the bridge, guided group rides, and local quick-build bike access improvement projects.

Issues:

Policy makers have received comment from individuals and community organizations expressing their concerns about traffic congestion during the westbound morning commute hours and the air quality impacts of this congestion on the City of Richmond. These letters advocate resolving these issues by converting the upper deck shoulder to a peak-period 3rd traffic lane and making the necessary operational improvements in Marin County that were included in TAM's Westbound 3rd Lane study and presented at various public meetings in Fall 2021.

Below is staff's assessment of these topics:

1. **Westbound Traffic** –Traffic congestion on the westbound approach to the Richmond-San Rafael Bridge is a longstanding problem. However, staff's analysis of westbound traffic during the mid-week morning commute hours in Spring, Summer, and Fall show no significant change in congestion from before the pilot, although traffic volumes are close to pre-pandemic levels (90 percent). This is consistent with the Caltrans pilot study reports, which also indicate that vehicular incident types, severity, response, and durations have not significantly changed based on observed variability from the before-pilot conditions. Lastly, as mentioned above, BATA's near-term RSR Forward projects are expected to improve traffic operations to alleviate — but not eliminate — congestion on the westbound approach and at the toll plaza, and to improve transit operations.
2. **Air Quality** – Contributors to air quality concerns in the City of Richmond are not only from I-580, but also the local refineries and the traffic volume along I-80. The proposed westbound 3rd lane may not improve air quality since non-exhaust emissions (particulate matter associated with road dust, brake wear, and tire wear) could increase due to more Vehicle Miles Traveled (VMT). And although exhaust emissions (e.g., particulate matter from passenger cars and heavy-duty trucks) could decrease due to reduced congestion, this effect could be offset by non-exhaust particulate matter emissions, especially those from additional heavy truck traffic.

MTC and the Bay Area Air Quality Management District (BAAQMD) have several ongoing efforts to improve the air quality in the City of Richmond:

- BAAQMD work with the Richmond-North Richmond-San Pablo community under the California AB 617 “Community Air Protection Program” will result in a list of opportunities that may be implemented to improve air quality conditions.
- MTC’s Community Based Transportation Plans (CBTP) (2020) contains transportation-related recommendations that can reduce air quality impacts, and there are ongoing efforts to launch a technical assistance program to advance the CBTP concepts.
- MTC received Caltrans Sustainable Transportation Planning Grants to reduce VMT which recently produced a Local Road Safety Plan (July 2022) and Bicycle Pedestrian Action Plan (January 2023) for the City of Richmond.
- MTC also received a California Air Resources Board (CARB) Clean Mobility Options grant that focuses on implementing a variety of options (EVs, bikeshare, transit passes, etc.) at affordable housing sites.

3. Westbound 3rd Lane on Bridge – While this may seem like a relatively straightforward modification, comparable to the lower-deck shoulder lane pilot, it poses considerable challenges, and staff does not recommend BATA initiate a project at this time.

Notable among these challenges is that, by adding new peak period capacity, the proposed new travel lane conflicts with the State’s climate goals, Climate Action Plan for Transportation Infrastructure (CAPTI). New policies and requirements that have come into full force in recent years aim to combat climate change by reducing greenhouse gas emissions and vehicle miles traveled, promoting multi-modal networks, and improving public health through active transportation. Environmental clearance of a 3rd lane would require VMT impact analysis and mitigation, if the lane were projected to increase VMT — which is very likely. VMT mitigation could increase the cost of a 3rd lane by 50% to 100%, based on emerging trends. By way of comparison, environmental clearance for the comparatively simpler pilot took 3.5 years and cost \$4M.

Lastly, because I-580 is two lanes at the touchdown in Marin, an additional westbound lane on the bridge does not significantly improve overall travel times in the corridor to US-101 without further improvements in Marin County. TAM’s westbound 3rd lane study (2020) presented several alternatives to improve I-580 from the bridge to U.S. 101. These unfunded

alternatives ranged from \$70M to \$310M (in 2020 dollars), not including the cost of any VMT mitigation that may be required.

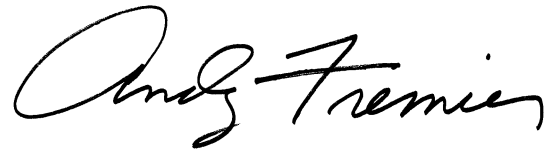
BATA, Caltrans, TAM, and CCTA are committed to finishing the current bridge pilot studies in Summer 2024, returning to this committee with a report and making decision on the disposition of the pilot by the end of 2024. BATA and its partners also are continuing efforts to deliver and potentially accelerate the RSR Forward projects that will improve traffic operations along westbound I-580 in the City of Richmond.

Recommendations:

This item is presented for information only.

Attachments:

- Presentation: Richmond San Rafael Bridge Updates



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