



DATE: September 3, 2019

TO: Planning, Policy and Legislation Committee

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SUBJECT: I-580 Design Alternatives Assessment Update

Recommendation

Receive an update on the I-580 Design Alternatives Assessment between I-238 and the Bay Bridge Toll Plaza, which is jointly developed by the Metropolitan Transportation Commission (MTC) and Alameda CTC.

Summary

The I-580 corridor a key travel corridor in Alameda County connecting central and northern portions of the county to San Francisco, the Tri-Valley, and beyond. To address the persistent congestion on this corridor, particularly in the northern section in the commute direction, MTC and Alameda CTC partnered in early 2018 to conduct a Design Alternatives Assessment (DAA), a focused technical study identifying potential multimodal improvements. The study corridor limits were between I-238 and Bay Bridge Toll Plaza. In working with all stakeholder agencies, including Caltrans, the project team has identified a package of multimodal improvements to move forward over various timelines for project development and delivery as described below:

- HOV extension from the current terminus east of the Bay Bridge Toll Plaza to east of I-980/SR 24 interchange (immediate near term)
- Conversion of General Purpose Lanes to Express Lanes (mid-term – in conjunction with implementation of outcomes from other DAAs)
- Arterial transit improvements including Express Bus Pilots and Park and Ride lots (immediate near term)

As next steps, MTC and Alameda CTC will discuss their respective roles, identify the available process and funding options, and move forward with appropriate agency approval to advance implementation of these improvements.

Background

I-580 is one of Alameda County's key transportation routes, carrying over 200,000 vehicles per day in its most heavily used segments and serving as a primary feeder to the Transbay/Bay Bridge corridor. Given the worsening congestion associated with Bay Bridge traffic and constrained right-of-way, MTC has identified the segment of I-580 from SR-238 in Castro Valley to I-80 in Oakland within Alameda County (shown in Figure 1) as a candidate for managed lanes as part of its Managed Lanes Implementation Plan effort. To evaluate this corridor further for identifying potential improvements, MTC and Alameda CTC jointly conducted a Design Alternative Assessment (DAA) for this segment. In recent years, MTC has initiated similar arrangements with several other County Transportation Agencies, including Contra Costa Transportation Authority (CCTA) for I-680 and jointly with the Congestion Management Agencies of Solano, Sonoma, Napa, and Marin counties (STA, SCTA, NVTA, and TAM) for State Route 37. The DAA evaluated traffic and throughput needs for this segment of I-580 and identified a list of feasible, near- and mid-term project concepts that can be advanced to project development. Alameda CTC intends to conduct similar DAAs to identify an appropriate set of improvement projects for the rest of the I-580 corridor, excluding the Express Lanes section, in the near future for a holistic approach to improve the entire corridor.

Figure 1 - DAA Study Limits: I-580 between Bay Bridge Toll Plaza and SR-238



The purpose of the DAA is as follows:

- Improve local and regional multimodal mobility for people
- Focus on increasing person throughput, improving travel time reliability, and offering travel time savings and to support bus and high occupancy vehicle use
- Identify a set of near-term (<5 years) operational projects that can quickly advance into project development and delivery
- Identify mid-term capital projects that may be further explored independently

The project team worked with a Technical Advisory Committee (TAC) with members of all relevant jurisdictions and transit agencies and Caltrans. Participants included representatives from:

- City of Emeryville
- City of Oakland
- City of San Leandro
- Alameda County
- AC Transit
- Caltrans

In addition to the TAC meetings, the project team met several times with key stakeholders such as the City of Oakland, AC Transit, and San Leandro during the DAA development to share discuss the progress and issues more relevant to them.

Key Findings

Based on the existing conditions analysis, including origin and destination data analysis, the following key findings were identified:

- Persistent congestion is experienced in the peak direction in the northern portion of the study corridor as follows:
 - In the westbound direction, the section between the Toll Plaza and I-980/SR 24 experiences congestion from 5 to 11 am in the morning, while the section between the Toll Plaza and Golf Links Road near the Oakland Zoo experiences congestion from 7 am to 10 am.
 - Eastbound in the afternoon between the Toll Plaza and east of SR 13 experiences congestion from 3 pm to until 7 pm.
- A majority of the westbound trips (56%) in the morning are going to destinations in downtown Oakland. Of the total trips on the corridor, about 20% of them originate in San Leandro and Castro Valley and over 15% are coming from the Tri Valley, primarily from Dublin/Pleasanton.

Alternatives Considered and Identified for Moving Forward

In support of the multimodal and increased person throughput goals, several mainline improvement options and a package of support strategies were studied. Based on the traffic analysis, design and operation and maintenance challenges, the project team narrowed down two mainline alternatives for consideration to move forward.

Mainline Alternatives Considered For Project Development Advancement:

- Westbound HOV lane extension – extending the westbound High Occupancy Vehicle (HOV) lane from its current terminus west of the Toll Plaza to east of I-980/SR24 interchange (1.2 miles). (Attachment A)
- Conversion of GP lanes into Express Lanes from east of I-980/SR 24 interchange to west of I-238 (12 miles) (Attachment A)

Mainline Alternatives Considered but Not Recommended for Advancement:

- Conversion of general purpose (GP) lanes into HOV Lanes from east of I-980/SR 24 interchange to west of I-238 (12 miles)
- Contraflow HOV or Express Lanes between east of I-980/SR 24 interchange and west of Golf Links Road by adding/converting a lane from the reverse commute direction for 6 to 6.5 miles
- Bus on shoulder - between east of I-980/SR 24 interchange and Edwards Avenue in the eastbound direction (6.0 miles) and between west of 150th Avenue to east of I-980/SR 24 interchange in the westbound direction (11.3 miles)

Supporting Strategies:

- Arterial improvements for transit
- Express Bus Service – Transbay and Oakland-bound
- Park and Ride lots

The City of Oakland is currently advancing an arterial improvement for transit parallel to I-580, the MacArthur Blvd Smart Corridor Project, which is a \$13.4 million, 13-mile corridor project between Lakeshore Blvd and approximately 98th Ave. This project was funded by Alameda CTC (\$11 million) in the 2020 Comprehensive Investment Program for implementation by the City of Oakland in coordination with AC Transit. The project proposes to implement communication infrastructure with fiber interconnect all along the corridor, as well as traffic signal and operational improvements and queue jumps that support transit performance and pedestrian safety. This project is scheduled to move into the design phase later this year and start construction in the spring of 2021.

Next Steps

The project team will complete the DAA report in the fall. MTC, Alameda CTC and partner TAC agencies will discuss and identify ways to advance implementation of the I-580 mainline alternatives considered for project development advancement and the supporting strategies listed above.

Fiscal Impact: There is no fiscal impact associated with the requested action.

Attachment:

- A. Westbound HOV lane extension and Conversion of GP lanes into Express Lanes from east of I-980/SR 24 interchange to west of I-238

Westbound HOV Lane Extension (Alternative 1A)

5.1A



GP Lane Conversion to Express Lane – Alternative 1C

