October 10, 2019

To: Transit Committee

From: Darrell E. Johnson, Chief Executive Officer

Subject: Bristol Street Transit Corridor Study – Draft Alternatives

Overview

The Orange County Transportation Authority initiated the Bristol Street Transit Corridor Study in October 2018. The study will identify options for improving transit service in the Bristol Street corridor from 17th Street to the South Coast Metro area and evaluate connections to John Wayne Airport. This staff report presents the six draft conceptual alternatives for Board of Directors' consideration.

Recommendations

A. Direct staff to offer presentations of the draft conceptual alternatives to the cities and external agencies participating in the study, and conduct a second round of outreach to solicit input from stakeholders and the public.

B. Direct staff to update the conceptual alternatives based on the input received, perform the technical evaluations, and return to the Board of Directors in spring 2020.

Discussion

The Bristol Street corridor is one of the Orange County Transportation Authority's (OCTA) highest ridership areas, accounting for approximately eight percent of systemwide boardings. The corridor provides access to several major trip generators, including the Irvine Business Complex, John Wayne Airport, Santa Ana Civic Center, Santa Ana College, and South Coast Metro area. This corridor also provides connections to important east-west bus routes, and to Metrolink and Amtrak via a connection to the future OC Streetcar.

Progress to Date

During the initial study phase (Purpose and Need) the team analyzed the existing conditions, future planned growth, identified mobility needs, and developed goals and objectives. These were presented to the OCTA Transit Committee and Board of Directors (Board) in April.

Over the last several months the project development team (PDT) developed six draft conceptual alternatives and identified potential physical and regulatory constraints. During August and early September, the PDT held coordination meetings with staff from the following agencies to solicit input on the draft alternatives and potential constraints:

- City of Costa Mesa,
- City of Irvine,
- City of Santa Ana,
- The California Department of Transportation, and
- John Wayne Airport.

These meetings provided an opportunity for additional input beyond the monthly PDT meetings in which these agencies participate.

Draft Alternatives

Six draft conceptual transit alternatives have been developed to improve transit service in the Bristol Street corridor, as well as facilitate a transit connection to John Wayne Airport. A brief description is listed below.

- Alternative 1: enhanced bus – Fullerton to John Wayne Airport via Anton Boulevard,
- Alternative 2: enhanced bus – Fullerton to John Wayne Airport via Campus Drive,
- Alternative 3: bus rapid transit – Fullerton to John Wayne Airport via Anton Boulevard,
- Alternative 4: bus rapid transit – Fullerton to John Wayne Airport via Sunflower Avenue,

- Alternative 5: OC Streetcar – Santa Ana Regional Transportation Center (SARTC) to John Wayne Airport, and
- Alternative 6: OC Streetcar – SARTC to South Coast Plaza.

To address the study goals of enhanced transit performance and customer experience, the draft alternatives include features to improve passenger boarding and reduce travel times. The various modes being evaluated (enhanced bus, bus rapid transit, and rapid streetcar) employ these features to a different extent and require different levels of capital improvements. Maps of the draft alternatives and a summary of the features that each alternative includes is provided in Attachment A.

Assumptions

The draft alternatives were developed with the following assumptions:

- All six alternatives include the limited-stop spacing that is employed on OCTA's Bravo! service, off-board fare collection, all-door boarding, and transit signal priority in order to achieve more expedited travel times,
- For the four bus alternatives, it was assumed that the proposed routes would extend beyond the study area and serve the same area that Route 57X serves today (which operates between Fullerton and Costa Mesa),
- For the two streetcar alternatives, it was assumed that the alternatives would use the same technology as the OC Streetcar and would have a connection with the OC Streetcar alignment. Therefore, vehicles traveling on the Bristol Street portion of the alignment would be able to connect with the OC Streetcar and travel eastbound towards SARTC.

While it is assumed that the bus alternatives would extend beyond the study area, the scope of this study evaluates potential improvements within the study area boundary. In the event that any of the bus alternatives were to move towards implementation, then extending improvements beyond the study area would be considered in future studies.

Project Constraints and Issues

Some of the emerging issues that have been identified by the PDT are listed below.

Airport access: For the bus alternatives, there are two options being considered for connections to the airport: (1) using the dedicated bus stop within the terminal area (where OCTA Route 76 and the iShuttle stop today) or (2) stopping outside the airport terminal on MacArthur Boulevard, just south of Michelson Drive. While the in-terminal bus stop offers passengers a direct connection to the terminal, the buses do get delayed several minutes by the traffic congestion as they enter and depart the terminal. The alternative to stopping in the terminal is to stop just outside the airport entrance on MacArthur Boulevard. While this has operational benefits for the service, this requires passengers to walk to the terminal from the MacArthur Boulevard/ Michelson Drive intersection.

For the streetcar alternative, which connects to John Wayne Airport (Alternative 5), it is proposed that the streetcar would use an elevated structure to travel over Interstate 405, and then remain elevated and terminate at an elevated station near the airport entrance. The station would include pedestrian bridges to connect passengers with the airport terminal and the Irvine Business Complex.

Dedicated transit lanes: For each of the bus rapid transit and streetcar alternatives, dedicated transit lanes are proposed for approximately 50 percent of the alignment to improve speeds and reduce travel times. Due to limited right-of-way, implementation of dedicated lanes likely means repurposing existing general-purpose lanes or some other portion of the roadway such as landscaped medians, parkways, or active transportation facilities. The team has identified the Bristol Street Widening Project area (located between 17th Street and Warner Avenue in the City of Santa Ana) as a potential opportunity area for a dedicated lane while still maintaining sufficient roadway width for other priorities.

Traffic concerns: Staff from the cities of Costa Mesa and Irvine have noted concerns regarding potential impacts to traffic operations near South Coast Plaza or the Irvine Business Complex. For each of these cities, it is a priority to understand the traffic impacts that are presented by each of the alternatives.

The potential impacts of the enhanced bus alternatives (which share lanes with other vehicles for the entire alignment) are perceived as less of a concern than the potential impacts of the bus rapid transit or streetcar operations, which include dedicated transit lanes that may present changes to traffic signal timing.

Evaluation Criteria

During the initial study phase, the PDT defined the travel demand, demographics, and mobility issues in the corridor, and developed the five mobility needs listed below.

1. Enhance transit mobility to local activity centers within the corridor through improved north-south services.
2. Make improvements that increase the speed and reliability of transit.
3. Improve transit access to areas outside the Bristol Street corridor through better connectivity with crosstown routes and the OC Streetcar.
4. Support local land-use planning with improved mobility options.
5. Enhance the customer experience and convenience in using transit.

In response to the mobility needs, the following goals were identified. These goals were used to develop the draft evaluation criteria, which will be used to technically evaluate each alternative.

1. Enhance transit performance.
2. Support local land-use plans and policies.
3. Enhance customer experience and improve mode choices.
4. Support air-quality goals and minimize environmental impacts.
5. Ensure cost-effectiveness and financial feasibility.
6. Incorporate community input.

A table of the goals and draft evaluation criteria is provided in Attachment B.

Next Steps

Staff recommends offering presentations of the draft alternatives and draft evaluation criteria to the cities and participating agencies in the study area and initiating a second round of public and stakeholder outreach. Based on the input received from the OCTA Board, city councils, the public, and stakeholders, staff will finalize the six draft alternatives and start the technical evaluation. During this phase, staff will prepare ridership and cost estimates and quantify the benefits and impacts of each alternative. Staff will return to the Board in early spring with the evaluation results and a summary of the community input received to date.

Summary

OCTA initiated the Bristol Street Transit Corridor Study in October 2018. The PDT completed the corridor definition and identified a set of mobility needs and goals in the spring. Since then, the PDT has developed six draft conceptual alternatives to improve transit service in the Bristol Street corridor. The draft alternatives include a variety of alignments, termini, modes, and features. Pending the Board's approval, staff will offer presentations to each of the city councils and participating agencies in the study area and initiate a second round of outreach. Based on the comments received from the Board, city councils, the public, and stakeholders, staff will finalize the six draft alternatives and transition into the next study phase, the technical evaluation of alternatives.

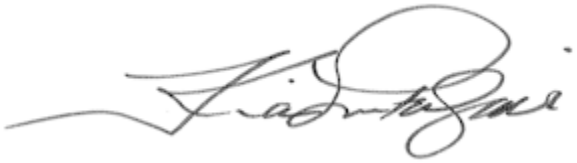
Attachments

A. Bristol Street Transit Corridor Study – Draft Alternatives
B. Bristol Street Transit Corridor Study, Draft Evaluation Criteria

Prepared by:

Eric Carlson
Principal Transportation Analyst
(714) 560-5381

Approved by:



Kia Mortazavi
Executive Director, Planning
(714) 560-5741