STAFF REPORT

TO: Planning Committee
AC Transit Board of Directors
FROM: David J. Armijo, General Manager
SUBJECT: Update on the Inner East Bay Comprehensive Operations Analysis

BRIEFING ITEM

RECOMMENDED ACTION(S):
Consider receiving an update on the Metropolitan Transportation Commission (MTC) sponsored Inner East Bay Comprehensive Operations Analysis (COA).

EXECUTIVE SUMMARY:
In order to implement the recommendations set forth by MTC under the COA, AC Transit is working with Transit Management and Design (TMD) to develop a service plan specific to AC Transit’s service, particularly the agency’s Transbay and urban trunk services. The plan introduces concepts to make Transbay service more efficient and productive. With efficiencies established in the Transbay network, resources would be reallocated to the urban trunks to create a spontaneous use network (10 minute frequencies or better) in AC Transit’s urban core. The service improvements would be coupled with capital investments to improve the speed and reliability along the urban trunks, which would improve efficiency and productivity, and increase total ridership.

BUDGETARY/FISCAL IMPACT:
There are no budgetary or fiscal impacts associated with this report. The recommendations of the COA could have impacts in the future, but it is premature for staff to attempt to quantify the impacts since no service changes have been identified at this point.

BACKGROUND/RATIONALE:
A sub-study of the MTC’s Transit Sustainability Project is a specific review of service delivery in the inner-East Bay entitled the “Inner East Bay Comprehensive Operations Analysis”. The COA was conceived to review and assess service connectivity between AC Transit and the Bay Area Rapid Transit District (BART) throughout the service area.

The COA study has been guided by an Ad Hoc group with the following representation:

- Board Members – 2 from the AC Transit Board, 3 from the BART Board and 2 MTC Commissioners
Executive Directors – each agency’s Executive Director/General Manager.

A service planning firm (TMD) was engaged by MTC to review AC Transit and BART service to assess both complementary and any potential competitive aspects of current service design with the end goal of optimally focusing service delivery. TMD reviewed the services provided by both agencies and, with MTC, developed recommendations that would meet the following goals of the COA study (emphasis added by MTC):

- Promote a seamless Inner East Bay bus and rail transit system.
- **Build the Urban Core** to allow for spontaneous bus and rail network use by customers.
- Match bus and rail service levels with demand, focusing on *improving service productivity* while increasing overall system ridership.
- Ensure on-going financial sustainability.

While none of the goals above are inherently objectionable, their implementation would likely result in changes to the District’s service policies and services themselves.

The services that would be affected the most would be Transbay and urban trunks. The findings of the COA have revealed that Transbay service, as a whole, under performs as express bus service (26 passengers per trip in the peak direction on average), is costly to operate relative to local services (all Transbay routes recover less than half of peak period operating costs), and expends a significant amount of District resources to deliver, including 28% of the District’s fleet on a daily basis.

On the other hand, the findings of the COA revealed that the urban trunk network is slow but productive given the amount of resources dedicated to it. The network could be significantly more productive if the District could increase speeds and frequencies that would help capture the market potential in the District’s urban core area. The improved service would create a spontaneous use network where transit riders would not have to plan their trip ahead of time; rather, they could arrive at a bus stop within the improved network and expect short wait times because of high-frequency service.

In order to develop detailed plans to implement the goals and recommendations established through the COA, MTC has tasked TMD to work with AC Transit staff to complete this effort, which was initiated by TMD in August. The COA recommendations are listed below along with implementation details:

- Create an urban trunk network of spontaneous use services (10 minute frequencies or better) that reduce wait times and attract ridership.
  - TMD is working with staff to identify urban trunk corridors that demand increased frequencies.
TMD is providing demographic and land-use data for these corridors to support the need for high frequency bus service.

Finally, TMD is identifying some strategies to reallocate resources from less productive and inefficient services to these corridors with potential for higher productivity and efficiency.

- **Develop Transbay pilots based on the following design options:** modify the current service model to improve productivity and cost effectiveness; fast, frequent shuttles to BART stations; and augment BART with Transbay service.

  - TMD is developing individual Transbay route profiles that measure ridership, route productivity, costs and other route statistics. These route profiles highlight the successful and unsuccessful Transbay services and the higher cost to deliver these services compared to the local network.

  - TMD is assisting AC Transit with coordinating with BART and MTC on opportunities to collaborate on pilot concepts. Some of the items to address include:
    - Coordinated fares
    - Seamless transfers between the two networks
    - Bicycle facilities
    - BART capacity within AC Transit’s service area

  - TMD is working with staff to brainstorm pilot ideas that have the potential to improve ridership, productivity and cost efficiency at the same time.

- **Invest in speed improvements in order to reduce cost through more efficient service design and faster operating speeds.** Investments should be focused where productivity is highest.

  - Based on the route profiles being developed for the urban trunks, TMD is using the information to identify corridors that would benefit from capital investment for speed improvements.

  - Based on their assessment of the urban trunk corridors, TMD is developing an “Urban Trunk Toolkit” which outlines specific corridor treatments to increase the speed of our buses. This toolkit will provide the framework for future project applications under MTC’s Transit Performance Initiative program capital improvements on the District’s slowest corridors.
Through the implementation of these three over-arching recommendations to achieve the COA goals, AC Transit would create a more efficient and productive Transbay network that would free up resources to invest in the urban trunk network. If these resources are coupled with capital investment to improve speed and reliability, the urban trunk could achieve spontaneous use frequencies with the potential for significant gains in ridership.

Given the District’s responsibility to meet MTC’s mandate to reduce costs by 5% over the next five years, the COA goals and recommendations greatly assist by guiding the District to deliver service more efficiently and in a more productive manner.

Plan Deliverables and Schedule

Through MTC, TMD will continue to work with AC Transit to develop an existing conditions report with specific Transbay and urban trunk route profiles. The existing conditions report would replace staff’s original plan to update the existing conditions of the Transbay Comprehensive Service Plan. This updated report would cover a broader scope, including the urban trunk network. Staff will present the specific existing conditions profiles for Transbay and urban trunks in December.

In the meanwhile, staff will continue to work with TMD to develop recommendations for implementation of the COA, including improvements to the urban trunk network and implementation of a couple of pilot recommendations for improving the Transbay network. The pilots would allow the District to test some of the concepts of the COA on a trial basis in order to measure their effectiveness prior to implementation of more widespread changes to the Transbay network. The pilots would also allow the public, especially existing riders, to provide input on the proposed Transbay concepts prior to full roll-out.

Staff expects to present the next set of COA recommendations on Transbay pilots and urban trunk service toward the beginning of 2013.

ADVANTAGES/DISADVANTAGES:

The advantage of this report is to provide the Board of Directors with an update on the status of the COA and development of recommendations specific to AC Transit’s service.

There are no disadvantages associated with this report.

ALTERNATIVE ACTIONS:

There are no alternative actions associated with this briefing report.

PRIOR RELEVANT BOARD ACTIONS/POLICIES:

SR 12-178 – Progress Report on the Metropolitan Transportation Commission Sponsored Transit Sustainability Plan and Inner East Bay Comprehensive Operations Analysis
SR 12-145 – Introduction to the Transbay Comprehensive Service Plan Update


ATTACHMENTS:

There are no attachments associated with this staff report.

Department Head Approval: James Pachan, Chief Operating Officer
Prepared by: Robert del Rosario, Director of Service Development and Marketing
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Inner East Bay
Comprehensive Operational Analysis (COA) Study Re-Cap
November 14, 2012

Agenda

- TSP Goals
- AC Transit COA Overview and Key Findings
- COA Framework and Guiding Principles
- Recommendations and Current Project Work
- Next Steps
TSP Goals

- Develop ways to promote the long-term **sustainability** of transit in the Bay Area
  - Improve cost-effectiveness
  - Increase ridership (larger mode share for transit)
  - Sustainable mobility (GHG, livable cities)

- AC Transit COA provides implementable strategies to achieve these goals

AC Transit COA Process

- Market Analysis
- Service Analysis
- Framework and Guiding Principles (finalized Spring 2012)
- COA Recommendations
Key COA Findings

- Denser, mixed use “urban core” development located from approximately San Leandro to Richmond; more suburban, auto-centric development in the south (District 2 area)
- Transit services on major “urban trunk” corridors are highly productive; however, the urban core in general lacks the frequency needed for customers to use transit spontaneously
- Slow speeds on major corridors increase operating costs; improving speed will help improve productivity
- Transbay bus services are underutilized and costly to provide
- Barriers between AC Transit and BART (service design, fares, schedules) mean that customers cannot seamlessly use both services

Urban Core Markets vs. Commute Markets
Goals of the Inner East Bay COA

- Promote a **seamless Inner East Bay** bus and rail transit system
- **Build the Urban Core** to allow for spontaneous bus and rail network use by customers
- Match bus and rail service levels with demand, focusing on **improving service productivity** while **increasing overall system ridership**
- Ensure on-going **financial sustainability**

Seamless Bus and Rail Network

**Seamless IEB transit network will require shift of BART and bus service towards the urban core**

- Frequency which allows for convenient transfers
- Fare product which removes financial barriers
- Integrated customer information
Support Spontaneous Transit Use

- Create an Urban Trunk network of “spontaneous use” services (target is 10 minutes or better) that reduce wait times and attract ridership

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent of Cost</th>
<th>Productivity</th>
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<tbody>
<tr>
<td>10 Minutes</td>
<td>26%</td>
<td>52.2 pph</td>
</tr>
<tr>
<td>11-15 Minutes</td>
<td>19%</td>
<td>41.0 pph</td>
</tr>
<tr>
<td>20-30 Minutes</td>
<td>37%</td>
<td>24.7 pph</td>
</tr>
<tr>
<td>45-75 Minutes</td>
<td>18%</td>
<td>16.8 pph</td>
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- Manage role and minimize cost of network coverage
  - Redefine threshold between spontaneous use network (15-min or better) and coverage (30-min or more)
  - Identify alternative service options tailored to specific market needs

Focus on Transbay

- Passenger Boardings per Trip

  - Graph showing passenger boardings per trip with various bars representing different time periods.
Invest in Speed Improvements

- Focus service investment where productivity is highest (spontaneous use network)
- Reduce cost through more efficient service design and faster operating speeds

<table>
<thead>
<tr>
<th>Weekday Passengers per Revenue Vehicle Hour</th>
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<tbody>
<tr>
<td><strong>Average</strong></td>
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<tr>
<td>Productivity</td>
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<tr>
<td>Speed</td>
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AC Transit COA Concepts

- Focus resources on key urban trunk corridors to provide “spontaneous use” urban core network
- **Redefine coverage service** as 30 minutes or higher
- **Invest in service speed improvements**
- **Rethink Transbay service** using several service design options
- Ensure Title VI/Environmental Justice considerations are addressed in both service quality (spontaneous use) and coverage
COA Concepts: Next Steps

- Develop integrated plan for AC Transit Urban Core
  - Transbay bus
  - Urban Trunk corridors
  - Urban Core network

Rethink Transbay Bus

- Transbay service overlaps with BART to/from San Francisco
  - Transbay costs more per passenger boarding than BART
  - Transbay service is underutilized

- Current Transbay service role extends beyond just augmenting BART capacity
  - Where is additional cross-bay bus capacity needed?
  - Are there holes in the BART network where Transbay can have a complementary role?
  - Can some Transbay service be reconfigured in a “higher frequency shuttle to BART station” role?
  - Potential new role to fill time-of-day BART service gap?
  - How can fares and parking pricing support an integrated network?
Develop a Strong Urban Core Network

- Urban Trunk routes carry a majority of riders and operate at slow speeds
  - Design service to be frequent and convenient
  - Reduce delay using speed improvement strategies
- Urban Core should operate as a cohesive network
  - Frequent service that allows customers to ride spontaneously
  - Appropriate mix of services (BART, BRT/Rapid, Local, community circulation)
Next Steps

December 2012
Provide more detailed information on Existing Conditions

February 2013
Present draft recommendations and "pilot" projects