



Alameda-Contra Costa Transit District

**STAFF REPORT**

**TO:** Operations Committee  
 AC Transit Board of Directors

**FROM:** Michael A. Hursh, General Manager

**SUBJECT:** Three-position Bicycle Racks

**BRIEFING ITEM**

**RECOMMENDED ACTION(S):**

Receive report on the status of the implementation of three-position bicycle racks.

**EXECUTIVE SUMMARY:**

More Bay Area residents are combining transit and bike trips, especially for Transbay commuting and late night service. Surveys show that the ability to combine bike and bus trips is a concern for many riders. Transitioning to three-position bike racks will offer 50% more rack space, which will help mitigate the denial of service to cyclists due to full racks.

In 2014, the Governor signed Assembly Bill 2707, which allows all transit agencies to install three-position racks. This Bill supports the California Highway Patrol approval of the racks at the state level.

Given the results of needs surveys conducted by staff, research of bike rack models and alternatives, and positive pilot test results to date, staff will proceed with outfitting all future 40-foot buses purchased by the District with three-position bike racks.

**BUDGETARY/FISCAL IMPACT:**

The cost to purchase a single three-position bicycle rack from Sportworks is \$1,159 compared to \$711 for the regular two-position rack. This cost is included in the District's budget for purchasing buses.

**BACKGROUND/RATIONALE:**

In order to accommodate more bicycles on AC Transit's buses, staff investigated the use of three-position bicycle racks for existing fleet and future bus purchases. There has been an increasing demand for more bike capacity on buses in recent months. In particular, the District has received complaints from bicycle passengers on Transbay and Dumbarton bus lines. These complaints revolve around being denied bus service due to full capacity bicycle racks, yet most of these cyclists rely on AC Transit to get to work. Cyclist ridership has been increasing during peak commute hours as an alternate mode to cross the Bay, but bike capacity has decreased with the retirement of the MCI buses.

In general, linking transit with active modes of transportation is consistent with regional policies to encourage less private automobile use and reduce emissions generated from transportation.

Staff's investigation includes an examination of rider surveys, peer review, design review and a small pilot program to test the three-position bike rack.

### Needs Survey

Staff conducted a Transbay Bike Survey via web-based communication and physical surveying at the Transbay Temporary Terminal. The interactive online survey was created with Google Forms and accessed through Google Drive. The survey was also distributed on the Dumbarton Express service using the same methods. For both services, the District's Marketing Department assisted with advertising the survey via the website and through e-News. Staff also reached out to the East Bay Bike Coalition who published the survey in their weekly newsletter to seek additional survey participants

### *Transbay Survey Results*

The District received over 180 Transbay surveys during the survey period in the spring of 2014. Below are results from questions that identify Transbay cyclist trends.

Generally, over 65% of surveyed cyclists have been unable to board in the three months prior to the survey due to full bicycle storage, and 75% of cyclists have been denied service at least 2 or more times in the last 3 months. The survey also revealed that over 50% of riders are from the cities of Berkeley and Oakland, with the majority of riders experiencing problems on the F, FS, O, NL and H Transbay lines. Additionally, over 46% of Transbay cyclists commute via Transbay buses five days per week and 37% of cyclists commute 2-4 days per week.

While creating the survey, staff developed initial solutions that could steer cyclists to use existing multi-modal/alternative services, such as BikeLink and Bike Share SF. 88% of cyclists ride their bikes on the San Francisco side of their commute and prefer to use their own bicycles as they are more reliable and custom to their riding preferences. These results prove that BikeLink and Bike Share are not viable solutions to help alleviate bike capacity issues on AC Transit Transbay buses.

After further reviewing survey comments, some cyclists have switched from BART to AC Transit Transbay service because of the difficulty of loading a bike on a train car when the train is running at or above full capacity. This has led staff to conclude that AC Transit Transbay buses are a more comfortable and enjoyable alternative to crossing the bay. However, the general recommendation inferred from cyclists' comments was that bicycle capacity needs to be expanded on AC Transit Transbay buses to keep it as a reliable alternative.

### *Dumbarton Express Survey Results*

Staff received only twenty-six Dumbarton Express bicycle surveys between 7/11/2014 - 10/17/2014, which is a small sample compared to the nearly 1300 daily riders. Below are the results of Dumbarton Express cyclist trends.

The survey showed that 61% of surveyed cyclists have been denied service in the 3 months prior to the survey due to full bicycle storage, and 56% of those cyclists have been denied service more than once in the last 3 months. The survey also revealed that over 70% of riders are from Union City and Fremont, with about 55% of riders experiencing problems on the DB and 45% on the DB1. About 56% of Dumbarton Express cyclists commute via Dumbarton buses 4-5 days per week.

Survey comments disclosed that a majority of riders believe that bicycle capacity needs to be expanded on AC Transit Dumbarton buses. Seven percent of survey participants commented that they had to stop riding their bikes because of lack of space on buses and 74% of respondents asked for more bike capacity with 37% of specifically listing three-position bike racks as a viable solution.

### Peer Review

In order to fully understand possible solutions to bike capacity issues, staff researched and spoke with other transit agencies. Currently, the Apex 3-position front mounting bike rack system (Apex-3) by Sportworks is the primary provider of three-position bike racks according to agencies in this review. The majority of agencies gave positive remarks on the Apex-3. An overview is provided as Attachment 1.

### New Design

The newly designed Sportworks Apex three-position bike rack that is in use by other transit agencies addresses some of the deficiencies from the original Sportworks Trilogy bike rack design through a more compact design. This provides the following benefits:

1. Easier bus operator maneuverability through turns
2. Minimal blockage of headlights
3. Less need to secure or remove one's bike from the street-side of the bus

The California Highway Patrol (CHP) is familiar with the Apex-3 and concurs that the rack is within CHP's regulations for both safety and bus operations in California. In addition, Governor Brown signed Assembly Bill 2707 into law in 2014, which allows transit agencies to install three-position bike racks on the front of 40-foot and smaller buses, though AC Transit was already able to do this through an exception to the earlier law. Nonetheless, the action by the Governor and review by CHP support the use of newly designed three-position bike racks.

Though the District has not committed to purchasing the Sportworks Apex-3, Sportworks is one of the more commonly used bicycle racks for public transit agencies and the District does own numerous older models of the same brand.

### Pilot Test

Over the last three months, staff has conducted a demonstration pilot of one Apex-3 bike rack on a 40-foot Gillig bus. The bus has been used on both local and Transbay service. To date, staff has received positive feedback from operators and no complaints from the public regarding the bike rack. In addition, there have been no reported malfunctions of the rack during the pilot period.

**Staff Proposal**

More Bay Area residents are combining transit and bike trips, especially for Transbay commuting and late night service. It has become clear from survey results that the ability to combine bike and bus trips is a concern for many riders. Transitioning to three-position bike racks will offer 50% more rack space, which will mitigate the denial of service to cyclists due to full racks.

Given the survey, research and pilot test results, staff will proceed with outfitting all future 40-foot bus purchases with three-position bike racks with equivalent features to the Sportworks Apex-3 model. Since Gillig does not install these racks as part of their bus manufacturing process, staff will install them upon receipt of the bus. Staff will start this commitment and competitive procurement process with the 40-foot Gillig buses expected to arrive in 2016.

**ADVANTAGES/DISADVANTAGES:**

The three-position bike rack will increase bike capacity by 50% on future 40-foot bus purchases. This advantage allows more bus riders to consider multi-modal alternatives to driving. Though the three-position bike rack is larger than the two-position predecessor and can pose some challenges to the operator, the new designs on the market have mitigated for the increased size.

**ALTERNATIVES ANALYSIS:**

Staff has explored multiple alternatives to increasing bike capacity on a front-mounted rack including rear-mounted bike racks and allowing bikes inside the bus. While both can increase overall bike capacity per bus, they each have their obvious concerns and potential liabilities. Therefore, staff proceeded with a pilot of the front-mounted three-position bike rack, which has significantly less concerns over the alternatives mentioned above. To date, the pilot has proved to be successful and has given staff enough confidence to expand the purchase.

**PRIOR RELEVANT BOARD ACTIONS/POLICIES:**

GM Memo No. 08-287a – Measure B Application for funding two and three-position bike racks

**ATTACHMENTS:**

1: Agency Peer Review

<b>Executive Staff Approval:</b>	Aida R. Asuncion, Acting Chief Planning, Engineering and Construction Officer
<b>Reviewed by:</b>	Denise C. Standridge, General Counsel James Pachan, Interim Chief Financial Officer
<b>Prepared by:</b>	Robert del Rosario, Director of Service Development

Sportworks Apex-3 racks. The agency found that many bus manufacturers will not supply buses with three-position racks, but RTA believes that three-position racks do not violate Federal Motor Vehicle Safety Standards and are safe for use.

Other agencies using Sportworks Apex-3 or Trilogy on Gillig low floor or Phantom buses include San Luis Obispo Transit, Paso Express, South County Transit, Santa Maria Area Transit, Yolo County Transit District, Honolulu Transit, Grand Rapids Transit Agency, King County Metro Transit, Gold Coast Transit Ventura County, Lynx Orlando, Miami-Dade Transit, Pinellas Suncoast Transit Authority and Western Contra Costa Transit Authority. Though staff was not able to speak with these agencies directly, research found no references or reports indicating any safety concerns or accidents.