

ALAMEDA-CONTRA COSTA TRANSIT DISTRICT



STAFF REPORT

MEETING DATE: 7/10/2019

Staff Report No. 19-239

TO: AC Transit Board of Directors
FROM: Michael A. Hursh, General Manager
SUBJECT: Update on Fremont and Newark Planning Efforts

BRIEFING ITEM

RECOMMENDED ACTION(S):

Consider receiving an update on service planning efforts in Special Transit Service District 2, which consists of the cities of Fremont and Newark. [Requested by Director Shaw - 2/13/19.]

BUDGETARY/FISCAL IMPACT:

There is no budgetary or fiscal impact associated with this report, though there will be future budgetary implications once staff develops new preliminary service alternatives matched to current market conditions and reflecting the needs of the community.

BACKGROUND/RATIONALE:

Overview

The District last pursued large-scale changes to service within Fremont and Newark in 2013. In the six years since the transit network was last restructured, the area emerged from the Great Recession with a changed transit market. Although the area is seeing staggering job growth and increasing residential and commercial development, ridership in southern Alameda County is on a downward trend. Like the job and real estate markets in Fremont and Newark, the local mobility landscape has also seen large changes, with the emergence of new mobility options from transportation network companies and a wider prevalence of employer shuttles. In addition, regional travel patterns are poised to shift dramatically with the start of BART service to Berryessa in San Jose in December 2019. These ridership declines underscore the fact that Special District 2's transit network is no longer properly matched to the travel needs of the area.

AC Transit, the Service Expansion Plan, and Flex Service

AC Transit had originally intended to restructure South County service following the passage of Measure BB in 2014, when preliminary concepts were developed for the entire District as part of the Service Expansion Plan (SEP). The working draft plans for Fremont and Newark envisioned a frequent, 15-minute fixed-route network along the cities' highest-productivity transit segments, with Flex service covering intervening segments in the existing network where lower-frequency and lower-productivity transit lines currently operate (see Attachment 1 - Preliminary South County Flex Zone Map). Since Flex would be essential to the success of these network concepts and AC Transit had limited experience with on-demand services, the Board elected to move

forward with initial Flex pilots rather than diving head-first in a drastic redesign of the transit network.

The use of Flex as a replacement for fixed-route service in low-density areas could provide AC Transit with some of the resources necessary to invest in high-frequency along major corridors. The pilots allowed the District to properly evaluate this new mode in the interest of understanding their operation while minimizing potential disruptions to existing riders by keeping the existing fixed-route network in place.

The first AC Transit Flex services debuted in July 2016 in two zones: one along the Line 275 alignment in Newark, and a second within a zone including most of Castro Valley. In March 2017, the Board made Flex services permanent and formally discontinued the underlying Line 275 fixed-route service.

After operating Flex service for three years, Staff has seen mixed results from the service. While on-time performance is higher than fixed-route service, the service carries fewer passengers, meaning that the cost per passenger is higher. In addition, Flex service information is not available through trip planning platforms or in schedule data, making it difficult for a potential rider to identify it as a public transit option.

Staff believes that with careful planning in very low ridership and productivity environments, Flex could provide higher service quality than infrequent bus service. Similar on-demand services have typically been most successful when connecting with frequent fixed-route rail and bus service. Staff believes that a robust public engagement effort during the planning phase and additional analysis could better assess which existing route segments may be good candidates for Flex service. Detailed analysis at the street and neighborhood level would be necessary to ensure any future Flex substitutions for existing fixed-route route segments can adequately serve existing demand.

Peer Agencies and On-Demand Transit Offerings

A wealth of new literature has been written about transit operators' experiences with different types of technology-driven on-demand transit models. TCRP Synthesis 141 (*Microtransit or General Public Demand Response Transit Services: State of the Practice*) and TCRP Research Report 204 (*Partnerships between Transit Agencies and Transportation Network Companies (TNCs)*) provide a very comprehensive understanding of the latest trends in on-demand mobility, including technology-driven demand response services like Flex and novel partnerships with TNCs nation-wide.

Across the board, demand response services and TNC partnerships target low-productivity transit markets because of these service types' inherent characteristics. When a vehicle is deviated from direct routings to serve individual customers' origins and destinations, service productivity suffers in order to facilitate a high quality of service for these individual passenger trips.

Because of these operational limitations and limited capacity, the service is best matched to markets with low densities and transit ridership like our existing Flex service areas in Castro Valley and Newark. Matching this kind of service to low-density markets minimizes the likelihood that the service would be oversubscribed. Experience across the industry shows that these services, like Marin Transit's Connect, a curb-to-curb pilot service operated by Whistlestop with Via technology for dispatching and ride-hailing, and SmarT Ride, operated by Sacramento Regional Transit with similar TransLoc technology, have exhibited similar productivities and capacity constraints to traditionally dispatched and scheduled demand-response services without app-hailing capabilities. In addition, these initiatives have been heavily subsidized by limited-term grant funding.

Attachment 3 depicts some key characteristics of on-demand services provided by transit operators throughout the nation including AC Transit. While AC Transit service productivity generally matches those of other agency peers, costs are substantially higher.

Other agencies in the *Microtransit* report cited cost savings as a key goal for introducing on-demand services. Those do so by taking advantage of the lower hourly costs associated with paratransit as compared to operating fixed-route. Because the District operates Flex service at the same rate as fixed-route service, it is much less efficient than other agencies on a per hour and per rider basis. This minimizes Flex's cost-effectiveness relative to fixed-route in serving the District's low-density environments.

As the *Microtransit* report details locally, Sacramento RT's experience was of increased productivity, with service productivity growing to roughly 3.5 passengers per hour. However, agency staff expressed concern with passenger wait times; wait times by time of day often vary, though median wait times hover around 15 minutes after the time requested. For example, if a passenger books a ride at 1:00 p.m. requesting pick up at 1:30 p.m. and the minibus arrives at 1:45 p.m., the wait time reported is 15 minutes, meaning that wait times can be substantial.

One key takeaway from the *Microtransit* report comes from one agency answer to the survey conducted as part of the analysis, which noted that "the main barrier in providing general public demand-response service is the ability to compete with TNC services like Uber and Lyft. Customers using a TNC are able to open an application and have a vehicle at their door within minutes that can take them anywhere from a half a mile to 30 miles and beyond. Our agency does not have the financial resources or the fleet size to provide on-demand services at the level of TNC services." There comes a point when demand for demand-response services becomes so great that fixed-route becomes more cost-effective.

Other micro-mobility pilots in the region include LAVTA's Go Dublin! Initiative, in which LAVTA reimburses 50% of a ride-hailing fare within the City of Dublin up to \$5.00. Like others locally, Go Dublin! has been funded by limited-term grants. The TCRP TNC report details that average ridership was approximately 1,000, and trip costs averaged \$3.07. LAVTA partnered with both Uber and Lyft to provide subsidized rides to those in Dublin and partnered with DeSoto Cab Company to provide similar on-demand rides that were fully accessible. The goal of the project was to provide supplemental service where transit service was deemed to be prohibitively unproductive. As of this writing, a final detailed evaluation of the program's performance by an outside consultant is pending. However, LAVTA is pursuing ACTC grant funding for a similar program with a larger scope.

Flexible Mobility and Requirements for Complementary ADA Paratransit

An important implication of on-demand microtransit services is that because they are flexibly routed services provided on an equal opportunity basis, they are not defined as fixed-route transit per Federal Transit Administration guidelines. This means that they do not come with a requirement for complementary ADA paratransit service within a $\frac{3}{4}$ -mile radius. As FTA cites, demand-response services open to all riders without separate, dedicated paratransit provide the most integrated setting for all riders, allowing people with and without disabilities to travel together on the same vehicles.

As the *Microtransit* report details, the Transit District of Utah (formerly known as UTA, the Utah Transit Authority) and others have provided flexible mobility for those with and without ADA paratransit eligibility. This provides transit agencies with a flexible and cost-effective tool to introduce transit service into

communities without existing transit service and scale up the intensity of transit service as a ridership base is built. This service model matches the District's existing Newark Flex service, which serves many bus stops without underlying fixed-route service for much of its coverage area.

Going forward, staff does not believe it is financially feasible or necessary to provide both Flex service and ADA coverage in designated Flex service zones. However, given that the majority of stops in the District currently have complementary paratransit and wider Flex implementation could change this arrangement, we would like to seek Board input on this matter before proceeding with any type of Flex expansion.

New Challenges with Peak Service to Schools

In early June of this year, AC Transit was informed that the Fremont school board voted to discontinue all yellow school bus services for its students effective with the start of the 2019-2020 school year, which could have significant implications for this study and its outcomes. Early estimates from the school district suggest that their current transportation program accommodates over 800 individuals in each peak period. Even with the school district's school bus service intact, AC Transit's limited service lines to schools already exhibit considerable crowding.

Without yellow school bus service to absorb some of the school travel demand, staff anticipates extra demands placed on our existing fixed-route network. Heavy loads of new riders in peak periods would challenge the feasibility of replacing fixed-route service with Flex across a larger swath of Fremont and Newark. On-demand services like Flex scale poorly with the heavy ridership demands and predictable bell times of the school travel market. Adequately serving this market may necessitate maintaining fixed-routes with standard 30-to-40-foot buses to ensure adequate capacity. Staff will continue to monitor this situation and account for it as appropriate in its network planning efforts.

Next Steps for South County Planning

Five years have passed since major public engagement and analysis on the SEP was conducted. Given the area's residential and employment growth and the emergence of new mobility options, it is especially important for the District to plan service changes in Fremont and Newark with the most recent data possible. For these reasons, in Fall 2018, Staff began a new planning effort aimed at modernizing the transit network within Special District 2. Staff presented an early draft market analysis and service assessment (Attachment 2) to the project's technical advisory committee - which includes a wide variety of different stakeholders from the cities, other transit agencies, educational institutions, and service providers - and to the Fremont Mobility Task Force - a task force of Fremont residents on mobility issues.

While the restructuring of service offerings within Fremont and Newark was originally intended to be branded as a fourth phase of the District's AC Go initiative, given this project is tailored exclusively to fit southern Alameda County's unique needs, staff will reposition this effort accordingly. Staff anticipates that new positioning would better emphasize the plan's robust local focus and the evaluation of flexible mobility options like Flex as a larger fixture of Fremont and Newark's transit network within the project scope.

Initial findings from the existing conditions analysis indicate that denser and more transit-friendly development is moving forward throughout Fremont and Newark but is largely restricted to the Fremont Blvd corridor and the Warm Springs District. Outside of these nodes of development, Fremont and Newark are largely characterized by sparse development patterns, segregated land uses, and street typologies that make

convenient walk access to transit challenging. Where demographics are concerned, Fremont and Newark boast substantial diversity, with significant populations of people of color. Fremont and Newark tend towards higher-income households, with select areas with concentrations of lower-income individuals and other demographic groups that tend to ride transit more.

In terms of service, the transit network in Fremont and Newark is still primarily low frequency, with stronger productivity along some of the area's major network spines like Fremont Boulevard, Washington Boulevard, Mowry Avenue, and Decoto Road. Most of the network doesn't provide service after 7:00 p.m., and service productivity does not meet the District's standards of 15 passengers per hour for this type of density.

These high-level findings will serve as the beginning of more detailed analysis. As part of the project, staff will conduct robust public engagement to better understand what people in Fremont and Newark want to see out of their future transit network, including identifying and addressing possible equity concerns related to implementing additional Flex service. Staff plans to hold pop-up events at key transit hubs, establish a presence at community events, and engage with stakeholder groups in different forums through the summer and fall. Staff's end goal is to engage members of the public in the decision-making process to ensure that the final network plan productively and equitably supports the communities' mobility needs.

At present, implementation is scheduled for Fall 2020. Between now and then, staff will provide the Board with updates at key milestone points, which are:

- Summer 2019: Preliminary Recommendations/Public Engagement
- Fall 2019: Engagement Results, Final Recommendations, Set Public Hearing
- Winter 2020: Conduct Title VI Equity Analysis, Hold Public Hearing, and Board Approval
- Fall 2020: Implementation

ADVANTAGES/DISADVANTAGES:

An advantage of planning for service changes in Special District 2 is the potential increase in ridership that comes with service that matches the needs of the community and lays the foundation for accommodating future growth in population and jobs in the area.

A disadvantage of planning for service changes in Special District 2 is that a major restructuring of service in that area will result in disruptions to some existing passenger travel patterns. However, restructuring efforts with AC Go in other areas of the District have yielded very few issues for existing customers and have generated higher ridership for those lines that have been adjusted.

ALTERNATIVES ANALYSIS:

Rather than moving forward with this planning effort, staff could preserve today's transit network in Fremont and Newark with recommendations to increase frequency. Staff does not recommend this because the draft existing conditions analysis has identified the need for change rather than stagnation regarding our fixed-route and on-demand service offerings.

PRIOR RELEVANT BOARD ACTION/POLICIES:

Staff Report 12-306a - Public Hearing for the Implementation of the Central and South County Restructuring

Plan

Staff Report 14-247b - Line 275/Flex Service Public Hearing

Staff Report 15-024 - Summary of Public Outreach for Comprehensive Operations Analysis, Round 1

Staff Report 15-218a - Service Expansion Plan Public Hearing

Staff Report 17-128 - AC Transit Flex Service Update

Staff Report 19-009 - Flex Service

ATTACHMENTS:

1. 2014 South County Service Expansion Plan Conceptual Service Map
2. Initial Draft of Fremont/Newark Market Analysis and Service Evaluation Presentation
3. Summary of On-Demand Services by Agency

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