

# MEMORANDUM

August 23, 2023

Project #: 213850.003

To: David Berman, AICP, Senior Transportation Planner  
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1600 Franklin Street  
Oakland, CA 94612

From: Kittelson & Associates, Inc.

RE: **AC Transit Realign: Guiding Principles**

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## Introduction

AC Transit Realign will restructure bus service in response to changing transportation needs associated with the pandemic and declining transportation revenues. Realign aims to improve the customer experience through the following goals:

- Assess today's travel patterns and the community's current AC Transit service needs.
- Implement an inclusive planning process that incorporates quantitative and qualitative data along with rider and community feedback – including the voices of hard-to-reach equity communities.
- Align service schedules, coverage, and frequencies based on major needs identified by the community, riders, travel pattern data, finances, and workforce availability.
- Update our service standards with best practices for the design of our bus service.

This memorandum presents the guiding principles that will be used to guide the development of service alternatives. A draft set of guiding principles was developed in July 2023 and was informed by community input received through the online survey and in-person engagement events, as well as the findings of the existing conditions technical analysis.

Community input on the draft guiding principles was solicited during Phase 2 of community engagement. The Phase 2 engagement activities are described in a separate memorandum. Additionally, the draft guiding principles were presented to the AC Transit Board of Directors in July 2023 for discussion and input.

This input has been used to develop this final set of guiding principles for review and approval by the AC Transit Board of Directors in September 2023. The final set of guiding principles will be used as the basis for developing service alternatives.

The remainder of the memorandum summarizes the guiding principles. The discussion of each principle includes the following:

- **Background:** summary of the relevant input received through the community engagement and technical analysis
- **Intent:** the purpose and intended outcome for the principle
- **Implementation:** potential strategies, actions, and tradeoffs that illustrate how the principle would be put into practice through Realign
- **Evaluation:** factors or measures that illustrate how the service alternatives will be evaluated against each guiding principle

## Guiding Principles

### Principle #1

**Equity: Provide bus service that prioritizes mobility for communities who need it the most.**

#### Background

Over the last decade, displacement and gentrification have made it harder for low-income residents to stay in the area. The share of zero vehicle households in the service area decreased between 2013 and 2021. The share of lower-income households also decreased throughout the service area during this period.

The makeup of the AC Transit service area is changing due to an aging population. The share of residents 65 and older increased by 2.5 percentage points, while the share of youth under 18 years old is decreasing.

During the in-person Phase 1 outreach events held in Spring 2023, people emphasized the importance of frequent service on busier bus routes, particularly for seniors and individuals with disabilities. For these groups, 30-minute wait times were viewed as too long.

During the in-person Phase 1 outreach events, people stated that they would like more robust weekend schedules to accommodate riders with nontraditional work hours, in addition to early mornings and late evenings throughout the week.

During the Phase 2 outreach events that were held to discuss the draft guiding principles, people stated that equitable access to destinations is important. Specific destinations mentioned were medical care, social services, and parks and recreational spaces.

#### Intent

This principle is intended to provide the greatest level of service where concentrations of the greatest mobility need exist, focusing resources on an expanded list of Equity Priority Communities within the AC Transit service area.

This principle is also intended to provide greater service to destinations that provide support for Equity Priority Communities within the AC Transit service area.

#### Implementation

Implementation of this principle would focus on an expanded list of Equity Priority Communities (EPCs) within the AC Transit service area, as well as the destinations and services that support those communities.

Plan Bay Area 2050 defines EPCs based on a combination of criteria and thresholds:

- People of Color (70% threshold)
- Low-Income (less than 200% of Fed. Poverty level, 28% threshold)
- Level of English Proficiency (12% threshold)

- Seniors 75 Years and Over (8% threshold)
- Zero-Vehicle Households (15% threshold)
- Single Parent Households (18% threshold)
- People with a Disability (12% threshold)
- Rent-Burdened Households (14% threshold)

If a tract exceeds both threshold values for Low-Income and People of Color shares OR exceeds the threshold value for Low-Income AND also exceeds the threshold values for three or more variables, it is an EPC.

The expanded list of EPCs includes the designated Plan Bay Area 2050 census tracts plus designated Plan Bay Area 2040 census tracts in Fremont and Newark.

Supporting destinations and services may include hospitals, clinics, social service agencies, grocery stores, and parks and recreation areas within the service area.

For the expanded list of EPCs within the service area, service frequencies and hours of operation would be maintained at current levels or increased, with the goal of providing high-frequency service (overall headways of 15 minutes or better) for all areas. Nighttime and weekend service will be prioritized for these areas and destinations. Suspended lines that serve these areas and destinations may be restored.

Other portions of the service area may have service frequencies and hours of operation maintained or reduced. High-frequency service in these other areas would be based on ridership demand, as would nighttime and weekend service. Suspended lines in these areas would not be restored.

## **Evaluation**

Service alternatives will be evaluated against the Equity principle through measures that address 1) EPCs served; and 2) access to key destinations supporting EPCs.

For the expanded list of EPCs, evaluation measures will address changes to service levels in terms of frequency, span, and coverage. This analysis will be completed at various scales to show differences across the service area.

For access to destinations, evaluation measures will address changes to service levels for key destinations that support the expanded list of EPCs. This analysis will also address the quality of transit service connecting EPCs with key destinations.

## Principle #2

### Reliability: Provide bus service that is reliable and predictable.

#### Background

Reliable service is a key element of the overall customer experience. When people were asked in the survey what aspects of AC Transit service could be improved, 39% of respondents mentioned reliability – buses being dependable, on-time, not departing early or late, or canceling without notice. For this question, reliability was mentioned the most of any topic.

During the in-person outreach events held in Spring 2023, riders also shared that they feel AC Transit's bus service lacks reliability and predictability.

Research across the transit industry has found that reliable, on-time service is the most important factor in retaining transit riders.

#### Intent

This principle is intended to provide adequate operating resources to ensure that trips that are scheduled are operated and service delivered is operated reliably.

#### Implementation

Implementation of this principle through the network redesign process may include: adding more recovery time to operator schedules to account for traffic congestion or unforeseen delays, adjusting running times, modifying route alignments to shorten running times or avoid bottlenecks, and headway adjustments.

Implementation of this principle also means that layover space and restrooms are conveniently located, which are key factors in providing reliable service.

While other on-going AC Transit efforts include the delivery of capital-intensive infrastructure enhancements including quick-build projects, transit signal priority, and other transit priority measures, those fall outside the scope of Realign's distinct focus on service planning and network design.

As with all of the guiding principles, implementation of this principle requires significant tradeoffs.

- Using more resources for existing services means that fewer resources are available to increase service frequencies or expand hours of operation.
- Reductions in service levels may occur to ensure that trips can be delivered consistently and reliably.

#### Evaluation

Service alternatives will be evaluated against the Reliability principle based on the level of redundancy provided to account for real-world travel conditions and restroom access needs. Evaluation measures will focus on the number of proposed service hours compared to existing conditions and anticipated bus operator staffing levels.

## Principle #3

**Frequency: Provide frequent service to the most people. The importance of frequency will vary by location and will be balanced against geographic coverage and community needs.**

### Background

When people were asked in the online survey which single most important improvement AC Transit could make to improve their travel, 27% of respondents mentioned more frequent service. (26% mentioned more reliable service.) For this question, frequency was mentioned the most of any topic.

Frequency needs to match the market that the service is operating in. Denser neighborhoods present more opportunities for ridership, which is reflected in how routes perform within the AC Transit network. Most of the highest ridership routes primarily serve the Oakland-Alameda-Berkeley subarea, the densest area in the system. This matches findings from public outreach.

During the in-person outreach events held in Spring 2023, riders stated they would like to see frequently used bus lines return to pre-pandemic service levels. Compared to pre-pandemic service, there has been relatively little decline in geographic coverage. Most areas served pre-pandemic are served under current service. Instead, most of the reductions in service have been reductions in frequency.

The top 11 routes carry just over 51% of total system ridership but represent just 35% of total resources. Meanwhile, the bottom 50 routes carry just 23% of total system ridership but represent 37% of total resources. This suggests that frequencies in the core network are lower than demand, while frequencies in the outlying parts of the network may be greater than demand.

Research across the transit industry has found that frequent service is the most important factor in attracting transit riders.

### **Community Feedback on Related Tradeoffs**

There are many tradeoffs associated with prioritizing more frequent service. The survey asked about three of them, and the findings on these tradeoffs are discussed below:

Frequency versus Geographic Coverage: In the survey, 60% of all respondents prefer prioritizing frequency over geographic coverage. This preference was shared across subareas and by both frequent riders and non-riders.

Frequency versus Fewer Transfers: The survey responses show a 50/50 split between buses coming more often (with more transfers) and bus routes that require fewer transfers (with less frequent service). Preferences varied across subareas. Lower-income respondents have a stronger preference for more frequent service (55% versus 45%). Higher-income respondents have a lower preference for more frequent service (47% versus 53%).

Frequency versus Shorter Walk to the Bus Stop: In the survey, 60% of all respondents prefer more frequent service and shorter wait times even if it means a longer walk to and from the bus stop. Preferences varied across subareas and demographic groups. Lower-income respondents are split evenly between more frequent service versus a shorter walk to the bus stop (50% for both). Higher-income respondents have a stronger preference for more frequent service (67% versus 33%). Respondents with a disability have a lower preference for more frequent service versus a shorter walk (40% versus 60%).

The responses to the three tradeoffs vary by subarea within the AC Transit service area, as mentioned above:

#### Western Contra Costa County Subarea

- Frequency (58%) versus greater geographic coverage (42%)
- Frequency (56%) versus fewer transfers (44%)
- Frequency (55%) versus shorter walk to the bus stop (45%)

#### Oakland-Alameda-Berkeley Subarea (Northern Alameda County)

- Frequency (64%) versus greater geographic coverage (36%)
- Frequency (49%) versus fewer transfers (51%)
- Frequency (65%) versus shorter walk to the bus stop (35%)

#### Hayward-San Leandro Subarea (Central Alameda County)

- Frequency (58%) versus geographic coverage (42%)
- Frequency (63%) versus fewer transfers (37%)
- Frequency (48%) versus shorter walk to the bus stop (52%)

#### Fremont-Newark-Union City Subarea (Southern Alameda County)

- Frequency (61%) versus geographic coverage (39%)
- Frequency (54%) versus fewer transfers (46%)
- Frequency (51%) versus shorter walk to the bus stop (49%)

## Intent

This principle is intended to provide the highest frequency service where the greatest demand exists while maintaining a network of high-frequency corridors (15 minutes or better) that includes all subareas.

## Implementation

Implementation of this principle means that service would be focused on higher-density areas that generally correspond to the corridors with the highest ridership. Service levels would be maintained or increased to match levels of demand. Pre-pandemic service levels may be restored where demand exists.

Implementation of frequent service would be balanced against geographic coverage. Recognizing that most of the highest-ridership routes are within the Oakland-Alameda-Berkeley subarea, at least one high-frequency corridor would be maintained in each of the other subareas. Evening and weekend service would be maintained as part of these corridors.

Implementation of this principle would also be balanced against the needs to provide mobility throughout the AC Transit service area. Transbay routes and school routes would be prioritized to the extent they serve Equity Priority Communities, but some routes may be reduced in favor of providing high-frequency service where the highest demand exists. Microtransit or other alternatives to fixed-route service may be explored in areas with low ridership.

Where high-frequency service is not provided, implementation of this principle would also prioritize timed transfers so that riders can transfer between buses with minimal wait time.

Implementing this principle will also include service changes to make routes more efficient. For example, route deviations may be removed and some routes may be interlined.

As mentioned earlier, prioritizing frequency as a principle comes at the cost of geographic coverage. In particular, portions of the service area not near high-frequency corridors may have reduced service and/or hours of operation. Restoring suspended routes would not be prioritized, but all or part of some suspended routes may be restored based on context.

## **Evaluation**

Service alternatives will be evaluated against the Frequency principle based on access to the high-frequency network.

Evaluation measures will address the number of residents and jobs with access to the high-frequency network. This evaluation will also quantify the number of residents and jobs that would experience increased or reduced service compared to existing conditions.

## **Other Issues Identified Through Community Engagement**

AC Transit riders and non-riders identified several needs that extend beyond the bus service changes that will occur through Realign. While these issues will not be addressed directly as part of this project, the feedback will be used for other AC Transit plans and programs.

- Improved reliability for the AC Transit mobile app, including advance notice of delays or cancellations
- Comfortable sidewalk access to the bus stop
- Cleaner bus stops
- More lighting at bus stops during early morning and late-night hours
- More bike storage on buses and bike lockers at bus stops
- More support for bus drivers when they are managing disruptive passengers