AC Transit  
Policy No. 550

BOARD POLICY

Category: Service Development

SERVICE STANDARDS AND DESIGN POLICY

PURPOSE

As a public transportation provider and mobility manager for the East Bay, the Alameda-Contra Costa Transit District’s goal is to provide service in an efficient, effective and equitable manner. To accomplish this goal, the District establishes objectives relating to the design and allocation of services to develop a marketable and well-used transit system. Service design should be continually examined to ensure that service is allocated correctly, in accordance with stated objectives.

GUIDING PRINCIPLES

AC Transit is committed to the proposition that significantly greater utilization of AC Transit service must happen if people are just to continue enjoying the mobility they now have. As such, service quality must be measurable and monitored, and the accurate measurement of its patronage is highly critical because the over-arching measure of AC Transit’s operational success is increased patronage. If future transit use is to increase, AC Transit must do a better job of providing that service. Therefore, the AC Transit Board of Directors recommends a set of Guiding Principles for the design and allocation of local, Transbay and All Nighter Services as follows:

The following are the Guiding Principles for the design and allocation of local transit service within the East Bay:

1. The AC Transit fixed-route service network shall be stable and cost-effective. To that effect, AC Transit will pursue opportunities to expand its fixed-route network, provided that the expected additional patronage is comparable to that which could be had by improving existing service. New service should be cost effective, vigorously marketed, and given ample time to prove its worth.

2. AC Transit service should be easily understood by the public and user-friendly. Service should be designed in such a way as to provide intuitive wayfinding for the majority of the transit users. Subject to Title VI compliance, service will be prioritized to those areas with the greatest...
potential for transit use, with higher patronage resulting in more frequent service and expanded service spans where warranted by demand.

3. AC Transit lines with high patronage should run frequently enough that over most of the service period, passengers do not need a schedule to use the system. Limited stop service will be implemented on those routes with high patronage, when such service can significantly reduce overall travel times.

4. AC Transit believes that human-induced climate change is a great problem facing the world. AC Transit’s greatest role in alleviating climate change is to get as many people out of their cars and onto its service as possible. As part of that effort, it will design routes that support smart growth and in-fill efforts. AC Transit will aggressively pursue transit priority and transit preferential methods and measures, to improve operation of the transit system and bus stop environments, and to encourage a modal shift of the populace from single-occupant vehicles to buses.

5. The AC Transit service network will provide for a multi-destination system that serves all traffic generators throughout the East Bay, regardless of location. AC Transit recognizes that it is part of a total transit system for the region, and shall support TransLink and other efforts toward making transit services seamless, regardless of the operator. It will serve other modal conversions as demand and total travel efficiency warrant, with a goal to improving connectivity and ease of transfer among the regional operators. AC Transit is also committed to a system that provides for internal transfers that are as seamless as possible.

The following are the Guiding Principles for the design and allocation of transit service within Transbay Corridors:

1. AC Transit will provide extensive commuter Transbay bus service where rail and road are approaching capacity. Non-peak service will be provided as justified by patronage.

2. AC Transit will provide a “many-to-one” service pattern from dense areas of the East Bay to downtown San Francisco, primarily developing a Transbay transit system that encourages walk access to transit, but may facilitate automobile park and ride access in low density areas and for Transbay transit access in the San Mateo and Dumbarton Bridge corridors.

3. Transbay Services should be funded from passenger fares and regional sources, most appropriately those revenue sources derived from users of the bridge corridors who benefit from decreased highway and bridge congestion. The District will support legislation to identify and implement these non-general fund sources.
The following are the Guiding Principles for the design and allocation of transit service in All-Nighter (Owl) Corridors:

1. All-Nighter services are part of a regional network, and the All-Nighter route network should serve BART stations and the trunk bus network.

2. All-Nighter services should be funded from regional sources, most appropriately those revenue sources derived from users of the bridge corridors who benefit from decreased highway and bridge congestion and funding, ensuring access to employment. The District will support legislation to identify and implement these non-general fund sources.

DEFINITIONS, STANDARDS AND MEASURES

SERVICE DEFINITIONS
A matrix depicting the service standards and goals for the various types of service is contained in Attachment 1 to this policy. The section below provides a definition for each service type operated by AC Transit:

**Trunk Routes and Major Corridors** – These are the services operating on corridors where residential densities are at least 20,000 residents per square mile (or comparable commercial densities). Routes in these corridors provide the backbone of the transit system; operate along the arterial streets and provide a high level of local and limited stop service. These routes have the highest priority for capital improvements.

**Rapid** - Provides limited stop service along a Trunk Route or Major Corridor featuring wide stop spacing, headway based schedules, transit signal priority and passenger amenities. Underlying local service contributes to aggregate service frequency.

**Urban Secondary, Crosstowns and Feeder Routes** – These are the routes operating in medium density corridors (10,000 – 20,000 residents per square mile or comparable commercial densities). These routes complement the trunk route network, providing a high level of local stop service. These corridors also are candidates for capital improvements to assist in bus operations.

**Suburban Crosstowns and Feeder Routes** – These are the routes operating in low density corridors (5,000 – 10,000 residents per square mile). These routes feed BART, park and ride lots, or other AC Transit routes, or serve neighborhood circulation functions with a high level of service.

**Low Density Routes** – These are primarily routes operating in areas of very low density (fewer than 5,000 residents per square mile). Most of this area is within Special Transit District 2.

**Community Flex Services** – These are primarily routes operating in areas of very low density, again, fewer than 5,000 residents per square mile, that provide a more flexible operation than traditional fixed route service. Most of this area is within Special Transit District 2, although there are a number of areas in District 1 that would be candidates for this type of service.
Community Service Routes - These routes are intended to serve specialized needs for groups of individuals for which fixed route service may not be warranted. Service usually operates sporadically to trip attractors such as shopping centers and senior centers.

All-Nighter (Owl) Routes – These are the routes providing service between 12 midnight and 6 am. All-Nighter routes operate as a lifeline service during the “owl gap” period.

Transbay Routes – These are the routes providing service to downtown San Francisco via the Bay Bridge Corridor, and to peninsula destinations via the San Mateo and Dumbarton Bridge Corridors.

Supplementary Services – These are special services operated to meet common carrier requirements of Federal and State laws and accommodate school bell times.

STANDARDS AND MEASURES

Level of Service (LOS) metrics will be used to describe standards and goals for the specific categories of Service Provision, Load Factor, and Service Span. The tables below provide the characteristics for each of those metrics:

**Figure 1: Service Provision**

<table>
<thead>
<tr>
<th>LOS</th>
<th>Average Headway</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>&lt;10 min</td>
<td>Passengers do not need schedules</td>
</tr>
<tr>
<td>B</td>
<td>10-14 min</td>
<td>Frequent service, passengers consult schedules</td>
</tr>
<tr>
<td>C</td>
<td>15-20 min</td>
<td>Maximum desirable time to wait if bus/train missed</td>
</tr>
<tr>
<td>D</td>
<td>21-30 min</td>
<td>Service exceeds maximum desirable wait time</td>
</tr>
<tr>
<td>E</td>
<td>31-60</td>
<td>Service available during the hour</td>
</tr>
<tr>
<td>F</td>
<td>&gt;60</td>
<td>Service unattractive to all riders</td>
</tr>
</tbody>
</table>

**Figure 2: Load Factor**

<table>
<thead>
<tr>
<th>LOS</th>
<th>Load Factor (pax/seat)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0.00-0.50</td>
<td>No passenger need sit next to another</td>
</tr>
<tr>
<td>B</td>
<td>0.51-0.75</td>
<td>Passengers can choose where to sit</td>
</tr>
<tr>
<td>C</td>
<td>0.76-1.00</td>
<td>All passengers can sit</td>
</tr>
<tr>
<td>D</td>
<td>1.01-1.25</td>
<td>Comfortable standee load for design</td>
</tr>
<tr>
<td>E</td>
<td>1.26-1.50</td>
<td>Maximum schedule load</td>
</tr>
<tr>
<td>F</td>
<td>&gt;1.50</td>
<td>Crush load</td>
</tr>
</tbody>
</table>
Density Standards and Service Objectives
One of AC Transit’s main criteria for service allocation is the density of land uses along a route. In denser areas, service will be more frequent, routes will be spaced closer together, and the evening service will run later. Within each service category, service will be allocated primarily on the basis of demand or use, provided that minimum service levels are provided. For example, within the Trunk/Major Corridor category, all services will be provided at a minimum of LOS C (15 – 20 minutes). More frequent service allocation will be provided on the basis of a combination of demand and density. The following table reflects the weekday peak service frequency standards for different densities.

<table>
<thead>
<tr>
<th>Persons per Square Mile</th>
<th>Route Spacing</th>
<th>Route Structure</th>
<th>Weekday Peak Frequency Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>20,000 and over</td>
<td>¼ mile</td>
<td>Grid</td>
<td>Trunk/Major Corridor: LOS C (15-20 minutes)</td>
</tr>
<tr>
<td>(High Density)</td>
<td></td>
<td></td>
<td>Low Density Routes: LOS E (31 – 60 minutes)</td>
</tr>
<tr>
<td>[such as International</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blvd., Telegraph Ave.]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20,000 - 10,000</td>
<td>¼ - ½ mile</td>
<td>Grid</td>
<td>Urban Crosstown/Feeder: LOS C (15 – 20 minutes)</td>
</tr>
<tr>
<td>(Medium Density)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[such as grid sections in</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oakland and Berkeley]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10,000 - 5,000</td>
<td>½ mile</td>
<td>Focal Point</td>
<td>Suburban Crosstown/Feeder: LOS D (21 - 30 minutes)</td>
</tr>
<tr>
<td>(Low Density)</td>
<td></td>
<td>Timed-Transfer</td>
<td></td>
</tr>
<tr>
<td>[such as Hayward, Castro</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valley, some areas of</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richmond, Fremont]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5,000 - 0</td>
<td>1 mile</td>
<td>Focal Point</td>
<td></td>
</tr>
<tr>
<td>(Very Low Density)</td>
<td></td>
<td>Timed-Transfer</td>
<td></td>
</tr>
<tr>
<td>[such as areas of</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fremont and hills]</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Distance to Bus Routes
Standards for how far passengers should travel to reach a bus route shall be based on density, with some allowance made for Express or Transbay services, which generally operate from catchment areas that may not meet the density standards. This standard shall also take into consideration topography or street patterns, which may increase or decrease the distance to bus routes.
### Persons per Square Mile

<table>
<thead>
<tr>
<th>Persons per Square Mile</th>
<th>Distance to Bus Routes</th>
</tr>
</thead>
<tbody>
<tr>
<td>20,000 and over (High Density) [such as International Blvd., Telegraph Ave.]</td>
<td>¼ mile</td>
</tr>
<tr>
<td>20,000 - 10,000 (Medium Density) [such as grid sections in Oakland and Berkeley]</td>
<td>¼ - ½ mile</td>
</tr>
<tr>
<td>10,000 - 5,000 (Low Density) [such as Hayward, Castro Valley, some areas of Richmond, Fremont]</td>
<td>½ mile to ¾ mile</td>
</tr>
<tr>
<td>5,000 - 0 (Very Low Density) [such as areas of Fremont and hills]</td>
<td>1 mile or greater</td>
</tr>
</tbody>
</table>

### Route Type

<table>
<thead>
<tr>
<th>Route Type</th>
<th>Span of Service Standard</th>
<th>Weekday Peak Frequency Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trunk and Major Corridors</td>
<td>LOS A (19 – 24 hours daily)</td>
<td>LOS C (15-20 minutes)</td>
</tr>
<tr>
<td>Rapid Service</td>
<td>LOS C (14 – 16 hours daily)</td>
<td>LOS B (10 – 14 minutes) (headway based)</td>
</tr>
<tr>
<td>Urban Crosstown / Feeder</td>
<td>LOS C (14 – 16 hours daily)</td>
<td>LOS C (15 – 20 minutes)</td>
</tr>
<tr>
<td>Suburban Crosstown / Feeder</td>
<td>LOS C (14 – 16 hours daily)</td>
<td>LOS D (21 – 30 minutes)</td>
</tr>
<tr>
<td>Very Low Density</td>
<td>LOS C (14 – 16 hours daily)</td>
<td>LOS E (31 – 60 minutes)</td>
</tr>
<tr>
<td>All Nighter (Owl) Service</td>
<td>Owl Gap period</td>
<td>LOS E (31 – 60 minutes)</td>
</tr>
<tr>
<td>Transbay</td>
<td>LOS B: Bay Bridge Corridor (17-18 hours daily); LOS C: DB/San Mateo Corridor (14-16 hours daily)</td>
<td>LOS D (21 – 30 minutes)</td>
</tr>
</tbody>
</table>

**Service Frequencies** –
In the District’s most urban locations, the service frequency standard shall be LOS B for Rapid Corridors, and LOS C for Trunks/Major Corridors. In other, less dense areas, the frequency standard shall be LOS D, and timed transfers should be accommodated. In all cases of service operating at frequencies exceeding 15 minutes, schedules shall be written on clock, memory-based headways to the extent practicable, so that the service is scheduled at the same time(s) each hour.

**VEHICLE LOAD STANDARDS**

A Vehicle Load Factor is the ratio of the number of seats on a vehicle to the number of passengers on-board. Load factor is an indicator of the extent or probability of overcrowding, and may indicate the need for additional vehicles to maintain useful service.
The Load factor is determined by taking the number of seats on a specific route which pass the peak load point during the peak hour, and dividing that number into the number of passengers that are actually carried past that point during that hour.

Load factors can vary by service type. For purposes of the AC Transit District, different Vehicle Load thresholds shall be used to measure service effectiveness or to determine remediation. The following thresholds shall be monitored:

<table>
<thead>
<tr>
<th>Route Type</th>
<th>Vehicle Load Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trunk and Major Corridors</td>
<td>1.25 (25% standees)</td>
</tr>
<tr>
<td>Rapid Corridors</td>
<td>1.25 (25% standees)</td>
</tr>
<tr>
<td>Urban Crosstown / Feeder</td>
<td>1.25 (25% standees)</td>
</tr>
<tr>
<td>Suburban Crosstown / Feeder</td>
<td>1.25 (25% standees)</td>
</tr>
<tr>
<td>Very Low Density</td>
<td>1.0 (no standees)</td>
</tr>
<tr>
<td>Transbay</td>
<td>1.0 (no standees)</td>
</tr>
<tr>
<td>All Nighter (Owl) Routes</td>
<td>1.0 (no standees)</td>
</tr>
</tbody>
</table>

For purposes of measuring the Vehicle Load Factor for Transbay or Express Service, the Vehicle Load Factor shall be measured as the route enters the “express area” and is operating closed-door, which is generally on the freeway.

APPLICATION OF STANDARDS

To determine service effectiveness, staff will conduct ridership surveys on a regular basis. This information will be used to determine evaluative components such as passengers per vehicle hour, vehicle load factor or the overall ranking of the services.

On an annual basis, AC Transit staff will provide the Board of Directors with an assessment of route performance within the service categories. Transit lines will be ranked by a variety of metrics such as passengers per hour or annual subsidy. Minority Transit routes (those routes that have at least 1/3 of the total route mileage in a census tract with a percentage of minority population greater than the percentage of minority population in the service district) will also be identified.

Service that falls below the 25th percentile of all routes within its category will be analyzed for the following:

- Schedule adjustments, if service frequencies exceed the standards provided in this Policy.
- Running time adjustments or minor route changes, to provide substantially the same level of service while reducing operating costs and retaining most passengers.
- Route improvements, including route consolidation or through-routing to improve efficiency and effectiveness.
• Route discontinuance, should there be no other means to improve efficiency or provide a well-used transit product.

• Other actions, such as grant funded opportunities, to improve route performance.

BOARD ACTION

• Prior to the Board initiating action on changes to routes or the route network, staff will provide an analysis of the issues, including an analysis of potential effects on minority communities as required by Title VI of the Civil Rights Act of 1964, as well as a recommendation based on this analysis.

Public Hearings will be held in accordance with Board Policy 163 before Board action on service changes or recommendations.
<table>
<thead>
<tr>
<th>Service Type</th>
<th>Peak Frequency Standard/LOS Ranking</th>
<th>Peak Frequency Goal/Characteristics</th>
<th>Peak Frequency Goal LOS Ranking</th>
<th>Base Frequency Standard</th>
<th>Base Frequency Goal</th>
<th>Scheduling</th>
<th>Service Routing</th>
<th>Route Spacing</th>
<th>Street Operations</th>
<th>Vehicles</th>
<th>Span of Service LOS</th>
<th>Span of Service Periods</th>
<th>Stop Spacing</th>
<th>Stop Amenities</th>
<th>Passengers per hour</th>
<th>Load Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transbay/Max Capacity</td>
<td>15-20 minute frequencies</td>
<td>LOS C: 15-30 minutes</td>
<td>Not less frequent than 15 min; can be more frequent</td>
<td>LOS A: &lt; 10 minutes</td>
<td>LOS B: 10-14 minutes</td>
<td>Weekday Peak</td>
<td>Major Arterial streets</td>
<td>1/4 to 1/2 mile</td>
<td>Flat flow operation</td>
<td>High-Capacity, fast boarding, low floor</td>
<td>4-18 hours daily</td>
<td>LOS A: 1/4 to 1/2 mile depending on density</td>
<td>Only when provided by advertising or city</td>
<td>LOS A: 1/2 to 1 mile</td>
<td>40 weekdays (min: 35 weekends (max: 1.25</td>
<td></td>
</tr>
<tr>
<td>Rapid Service</td>
<td>Not less frequent than 12 min; can be more frequent</td>
<td>LOS B: 10-14 minutes</td>
<td>Not less frequent than 12 min; can be more frequent</td>
<td>LOS B: &lt; 15 minutes</td>
<td>LOS B: 10-14 minutes</td>
<td>Headway based</td>
<td>Major Arterial streets</td>
<td>1/4 to 1/2 mile</td>
<td>Flat flow with signal priority</td>
<td>High-Capacity, fast boarding, low floor</td>
<td>4-18 hours daily</td>
<td>LOS C: 1/2 to 3/4 mile depending on density</td>
<td>Only when provided by advertising or city</td>
<td>LOS B: 1/2 to 3/4 mile depending on density</td>
<td>LOS B: 1/2 to 3/4 mile (min: 1.25</td>
<td></td>
</tr>
<tr>
<td>All Nighter and Weekday Transbay Peak Period Service Characteristics</td>
<td></td>
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</tr>
<tr>
<td>Service Type</td>
<td>Peak Frequency Standard/LOS Ranking</td>
<td>Peak Frequency Goal/Characteristics</td>
<td>Peak Frequency Goal LOS Ranking</td>
<td>Base Frequency Standard</td>
<td>Base Frequency Goal</td>
<td>Scheduling</td>
<td>Service Routing</td>
<td>Route Spacing</td>
<td>Street Operations</td>
<td>Vehicles</td>
<td>Span of Service LOS</td>
<td>Span of Service Periods</td>
<td>Stop Spacing</td>
<td>Stop Amenities</td>
<td>Passengers per hour</td>
<td>Load Factor</td>
</tr>
<tr>
<td>Weekday Peak Periods</td>
<td>Not less frequent than 15 min; can be more frequent</td>
<td>LOS B: 10-14 minutes</td>
<td>Not less frequent than 12 min; can be more frequent</td>
<td>LOS B: &lt; 15 minutes</td>
<td>LOS B: 10-14 minutes</td>
<td>Headway based</td>
<td>Major Arterial streets</td>
<td>1/4 to 1/2 mile</td>
<td>Flat flow with signal priority</td>
<td>High-Capacity, fast boarding, low floor</td>
<td>4-18 hours daily</td>
<td>LOS C: 1/2 to 3/4 mile depending on density</td>
<td>Only when provided by advertising or city</td>
<td>LOS B: 1/2 to 3/4 mile depending on density</td>
<td>LOS B: 1/2 to 3/4 mile (min: 1.25</td>
<td></td>
</tr>
<tr>
<td>Low Density</td>
<td>Not less frequent than 15 min; can be more frequent</td>
<td>LOS C: 15-20 minutes</td>
<td>Not less frequent than 15 min; can be more frequent</td>
<td>LOS C: 15-20 minutes</td>
<td>LOS C: 15-20 minutes</td>
<td>Clock Headways</td>
<td>Secondary Streets</td>
<td>1/2 mile maximum</td>
<td>Flat flow operation</td>
<td>Standard 40' vehicle</td>
<td>14-16 hours daily</td>
<td>LOS C: 1/2 to 3/4 mile depending on density</td>
<td>Only when provided by advertising or city</td>
<td>LOS C: 1/2 to 3/4 mile depending on density</td>
<td>LOS C: 1/2 to 3/4 mile (min: 1.25</td>
<td></td>
</tr>
</tbody>
</table>

**Board Policy 550: Weekday Peak/Base Period Service Characteristics**

<table>
<thead>
<tr>
<th>Standard Characteristics</th>
<th>Peak Frequency Goal/Scheduling</th>
<th>LOS Characteristics</th>
<th>Peak Frequency Goal/Scheduling</th>
<th>LOS Characteristics</th>
<th>Peak Frequency Goal/Scheduling</th>
<th>LOS Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekday Peak Periods: not less frequent than 15 min; can be more frequent</td>
<td>LOS A: &lt; 10 minutes</td>
<td>LOS B: 10-14 minutes</td>
<td>Los A: &lt; 10 minutes</td>
<td>LOS B: 10-14 minutes</td>
<td>Los A: &lt; 10 minutes</td>
<td>LOS B: 10-14 minutes</td>
</tr>
<tr>
<td>LOS C: 15-20 minutes</td>
<td>LOS A: &lt; 10 minutes</td>
<td>LOS B: 10-14 minutes</td>
<td>LOS A: &lt; 10 minutes</td>
<td>LOS B: 10-14 minutes</td>
<td>LOS A: &lt; 10 minutes</td>
<td>LOS B: 10-14 minutes</td>
</tr>
<tr>
<td>LOS D: 18-24 hours</td>
<td>LOS A: &lt; 10 minutes</td>
<td>LOS B: 10-14 minutes</td>
<td>LOS A: &lt; 10 minutes</td>
<td>LOS B: 10-14 minutes</td>
<td>LOS A: &lt; 10 minutes</td>
<td>LOS B: 10-14 minutes</td>
</tr>
</tbody>
</table>

**All Nighter and Weekday Transbay Peak Period Service Characteristics**

<table>
<thead>
<tr>
<th>Standard Characteristics</th>
<th>Peak Frequency Goal/Scheduling</th>
<th>LOS Characteristics</th>
<th>Peak Frequency Goal/Scheduling</th>
<th>LOS Characteristics</th>
<th>Peak Frequency Goal/Scheduling</th>
<th>LOS Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekday Peak Periods: not less frequent than 15 min; can be more frequent</td>
<td>LOS A: &lt; 10 minutes</td>
<td>LOS B: 10-14 minutes</td>
<td>Los A: &lt; 10 minutes</td>
<td>LOS B: 10-14 minutes</td>
<td>Los A: &lt; 10 minutes</td>
<td>LOS B: 10-14 minutes</td>
</tr>
<tr>
<td>LOS C: 15-20 minutes</td>
<td>LOS A: &lt; 10 minutes</td>
<td>LOS B: 10-14 minutes</td>
<td>LOS A: &lt; 10 minutes</td>
<td>LOS B: 10-14 minutes</td>
<td>LOS A: &lt; 10 minutes</td>
<td>LOS B: 10-14 minutes</td>
</tr>
<tr>
<td>LOS D: 18-24 hours</td>
<td>LOS A: &lt; 10 minutes</td>
<td>LOS B: 10-14 minutes</td>
<td>LOS A: &lt; 10 minutes</td>
<td>LOS B: 10-14 minutes</td>
<td>LOS A: &lt; 10 minutes</td>
<td>LOS B: 10-14 minutes</td>
</tr>
</tbody>
</table>

**Service Type**

- **Transbay/Max Capacity**
- **Rapid Service**
- **All Nighter and Weekday Transbay Peak Period Service Characteristics**

**Characteristics**

- LOS A: < 10 minutes
- LOS B: 10-14 minutes
- LOS C: 15-20 minutes
- LOS D: 15-30 minutes
- LOS E: 31-60 minutes
- LOS F: 61-90 minutes
- LOS G: > 90 minutes

**Load Factor**

- 1.25
- 1.00
GLOSSARY OF TERMS

Definitions of Terms, Acronyms and Abbreviations used in Board Policies
GLOSSARY OF TERMS

Accessible Service
Buses operating in regular service with passenger lifts or other devices that permit disabled passengers, including those in wheelchairs, to use the service with minimal difficulty.

Arterial Street
A signalized roadway that primarily serves through-traffic and secondarily provides access to abutting properties. Signals are generally less than 2 miles apart.

Bay Area Rapid Transit (BART)
The agency that operates a heavy rail transit network throughout the AC Transit service area as well as to San Francisco and Contra Costa County.

Bus Bunching
A condition that occurs when buses operating on the same route in the same direction converge on each other, thus traveling in “a bunch” along the route.

Catchment Area
Geographic areas that are convenient to transit service. Also known as Commute Sheds.

Central Business District (CBD)
The traditional downtown or retail/commercial area of a city.

Clock Headways
The scheduled headway between vehicle trips that can be divided into sixty (60) evenly (e.g. 60, 30, 20, 15, 10 or 5)

Deadhead Operation
The scheduled operation of a bus without carrying passengers. Usually this refers to the trip between the home division to the point where the bus enters or leaves its route.

Density (Population Density)
The number of persons within a prescribed area, usually square mile or census tract, reflected as an absolute number (e.g. 10,000 per square mile). See also “Employment Density.”

District
Throughout this document, “the District” denotes AC Transit. “District 1” and “District 2” denote the two Special Transit Service Districts into which AC Transit’s service area is divided. For all intents and purposes, “The District” refers to both special transit districts.

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Division (Operating Divisions)
A facility where buses are stored, maintained, and dispatched into service. AC Transit has four operating divisions: Hayward, East Oakland, Richmond, and Emeryville.

Employment Density
The number of employees per square mile or smaller area (e.g., CBD; industrial area). See also "Density (Population Density)."

Enterprise Asset Management System (EAMS)
A computerized information system that collects and processes data to facilitate management of the vehicle maintenance program and the Purchasing and Stores Departments.

Express Service
Bus routes with one or more long segments in which no stops are made (i.e. closed door operation).

Federal Transit Administration (FTA)
The Federal agency responsible for Federal transit policy and programs.

Frequency
The quantity of service on a route, usually described in terms of the number of buses per hour or the elapsed time between consecutive buses. The latter measure is also called the headway. The term high-frequency denotes many buses per hour, or small headways.

Goal
A generalized statement of an idealized end state; the end toward which effort is directed (intention).

Grid Network
A type of multi-destinational route structure. In a typical grid network, high-frequency routes operate on the length of east-west and north-south arterials, intersecting each other to form a grid pattern. This allows a passenger to travel from anywhere to anywhere else by a right-angle movement with at most a single transfer. Ideally, routes are spaced ½ mile apart so that everyone is in walking distance to both a north-south line and an east-west line. Since conditions rarely allow for an ideal grid, this concept is often called modified grid.

Headway
Another term for frequency, referring to the elapsed time between consecutive buses on a route.
**Heavy Rail Transit**
High-frequency rail transit on a completely grade-separated right-of-way with high-platform loading and usually a third-rail power source. BART is an example of a heavy rail system.

**Incident**
Any event occurring on a bus, other than mechanical failure, in which a driver must call for assistance.

**Kiss and Ride**
A mode of operation whereby passengers travel by automobile to the originating bus stop, with the automobile being driven away after dropping the passenger off. See also “Park and Ride.”

**Load Factor**
The ratio of passengers on board a bus to the number of seats. The load factor is generally shown as an average over a period of time, usually 60 minutes.

**Mechanical Roadcall**
The removal of a bus from revenue service due to mechanical failure.

**Metropolitan Transportation Commission (MTC)**
The regional transportation planning agency covering nine Bay Area counties. Responsible for distributing Federal and state transportation funds.

**Modified Grid**
See Grid Network.

**Multi-Destinational Network**
A bus route network that is designed to make it easy to travel by transit between any two points in the service area. The grid and timed-transfer networks are both multi-destinational networks.

**Objective**
A specific statement of a desired end product; the means by which goals are achieved. An objective identifies measurable ends.

**Outlate**
The late departure of a bus from the division to begin revenue service; a late pull-out.

**Park-and-Ride**
A mode of operation in which an intending bus passenger drives a car to a transit line or station, then parks and continues the trip by transit. (See also “Kiss-and-Ride.”)


**Park and Ride Lot**
A facility designed for or used by Park and Ride patrons.

**Peak Period**
A period of increased transit service, generally during the morning and afternoon peak ("rush hour") periods. Generally, peak periods are 6:00am to 9:00am and 3:00pm to 6:00pm.

**Platform Hour**
The number of hours a bus operates in service on a route, including deadhead time to and from the Division. Platform time includes both revenue time and deadhead time. See also “Revenue Service.”

**Proof of Payment**
Open fare collection system that requires that passengers display proof of payment (i.e. validated ticket, prepaid pass, valid transfer) while on board the transit vehicle or in other designated *fare paid* areas. Enforced through random checking either on-board or in paid area.

**Pull-In**
The return of a bus to the division at the completion of revenue service.

**Pull-Out**
The departure of a bus from the division to begin revenue service.

**Radial Network**
A route network that focuses on serving only one or a few major destinations, as opposed to a *multi-destinational network*.

**Recovery Time**
Time allowed at the end of a one-way trip at a specified layover point to provide a break for the bus operator and to ensure an on-time departure for the next revenue service trip (*Note: The District considers recovery, layover, and spot time as synonymous terms*).

**Revenue Service**
The time spent in scheduled service from the first timepoint of the day to the last timepoint of the day. Revenue service excludes deadhead time, but includes recovery time. See also “Platform Hour” and “Recovery Time.”

**Route Spacing**
The physical distance between bus routes or lines, usually indicated in miles or fractions thereof (e.g. ½ mile).
Running Time
The amount of scheduled time allowed for an operator to complete a one-way trip (excluding recovery time).

Service Standards
A set of policies, approved by the Board of Directors, setting forth the goals for transit service. See also “Goal,” “Objective,” and “Standard.”

Short Range Transit Plan (SRTP)
A 10-year plan published every 4 years by AC Transit in accordance with MTC requirements.

Span of Service
The total revenue hours during which transit service is operated.

Standard
The acceptable level of performance; the rule for the measure or test of quality.

Timed-Transfer Network
The type of multi-destinational network best suited for suburban or low-density areas or at times of day when frequent service is inefficient to operate. Bus routes are designed to radiate from strategically located transit centers. The routes are scheduled so that all buses arrive at the transit center at the same time, lay over for enough time so that passengers can transfer between any two buses, and then depart.

Transit Center (TC)
A facility designed to accommodate several buses at one time, for the purposes of transferring. These facilities are usually located off-street and have amenities for passenger and driver convenience.

Transit Improvement Program (TIP)
Program operated by MTC whereby proposed capital projects are ranked according to criteria developed by a task force of regional transit operators.

Transit Oriented Development (TOD)
A mixed-use residential or commercial area designed to maximize access to public transport, and often incorporates features to encourage transit ridership.

Transportation System Management (TSM)
Any number of techniques designed to make better use of a transportation facility. In AC Transit’s case the term refers to projects designed to increase the speed of buses, thereby reducing costs and increasing ridership.
**Unit Cost**
The annual operating costs divided by a unit of service delivery such as annual vehicle hours, annual vehicle miles, or annual passenger boardings.

**Unscheduled Absence**
Any time an employee is absent from work other than cases where the employee is entitled to be off, such as vacation, floating holidays, military leave, jury duty, union business, or funeral leave.
Acronyms and Abbreviations

AA  Affirmative Action
AAC  Accessibility Advisory Committee
AB  Assembly Bill
ADA  Americans with Disabilities Act
AFSCME  American Federation of State County & Municipal Employees
AGM  Assistant General Manager
AMA  Alternative Modes Analysis
APC  Automatic Passenger Counter
APTA  American Public Transit Association
ATU  Amalgamated Transit Union
AVL  Automatic Vehicle Location
AVM  Automatic Vehicle Monitoring
BART  Bay Area Rapid Transit
BO  Bad Order
Caltrans  California Department of Transportation
CBD  Central Business District
CBO  Critical Business Outcome
CCCTA  Central Contra Costa Transit Authority (County Connection)
CFR  Codified Federal Regulations
CMAM  Congestion Management Agency
CMF  Central Maintenance Facility
CMP  Congestion Management Program
CPI  Consumer Price Index
CSP  Comprehensive Service Plan
CTA  California Transit Association
DBE  Disadvantaged Business Enterprise
DMV  Department of Motor Vehicles
DOT  Department of Transportation
DP  Data Processing
EAMS  Enterprise Asset Management System
EBMUD  East Bay Municipal Utilities District
ECCTA  Eastern Contra Costa Transit Authority
EEO  Equal Employment Opportunity
EIS  Environmental Impact Statement
EIR  Environmental Impact Report
EPA  Environmental Protection Agency
FAU  Federal Aid Urban
FEMA  Federal Emergency Management Agency
FHWA  Federal Highway Administration
FONSI  Finding Of No Significant Impact
FTA  Federal Transit Administration

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