

BRIEFING MEMO

AC TRANSIT DISTRICT
Board of Directors
Executive Summary

GM Memo No. 05-083

Meeting Date: April 6, 2005

Committees:

- | | | | |
|----------------------------|-------------------------------------|------------------------------|--------------------------|
| Planning Committee | <input checked="" type="checkbox"/> | Finance Committee | <input type="checkbox"/> |
| External Affairs Committee | <input type="checkbox"/> | Operations Committee | <input type="checkbox"/> |
| Board of Directors | <input type="checkbox"/> | Financing Corporation | <input type="checkbox"/> |

SUBJECT:

Receive report on Part 3, Chapter 1 of the Transit Capacity and Quality of Service Manual.

RECOMMENDED ACTION:

- Information Only Briefing Item Recommended Motion

Fiscal Impact:

None; background only.

Background/Discussion:

In March, staff provided an introduction to TCRP Report 100, *Transit Capacity and Quality of Service (TCQS) Manual - 2nd Edition*, 2003. The introduction covered *Part 1: Introductions and Concepts*. At that time, staff indicated that the April briefing would cover *Part 3: Overview and Transit Performance Measures*. In May, staff will provide a briefing on *Part 3, Chapter 1: Transit Trip Decision-Making Process*.

BOARD ACTION: **Approved as Recommended** [] **Other** []
 Approved with Modification(s) []

[To be filled in by District Secretary after Board/Committee Meeting]

The above order was passed on _____, 2005.

Rose Martinez, District Secretary
By _____

Briefly, last month's review covered the introduction and overview of service quality and capacity concepts. *Quality of Service* deals with basic issues of service frequency, coverage and speed. *Capacity by mode* deals with issues of the passenger-carrying capacity of each mode, where the ability to handle passenger loads varies substantially.

Quality of Service

The Manual rates six levels of service, ranked from A through F, a scale similar to that found in the *Highway Capacity Manual*. A is the highest level of service, and F is the lowest. The **Fixed Route Service Measures** are:

Fixed Route Service Measures			
	Transit Stop	Route Segment	System
Availability	Frequency	Hours of Service	Service Coverage
Comfort & Passenger Convenience	Load	Reliability	Transit-Auto Travel Time

Part 3, Chapter 1 of the Manual establishes a common nomenclature for Transit Performance Measures, Quality of Service, Service Measures and Levels of Service. As defined in Report 100, a **Transit Performance Measure** is a *quantitative or qualitative factor used to evaluate a particular aspect of transit service*. **Quality of service** is the *overall measured or perceived performance of transit service from the passenger's point of view*. A **Transit Service Measure, or measure of effectiveness**, is a *quantitative performance measure that best describes a particular aspect of a transit service and represents the passenger's point of view*. **Levels of Service** are the rankings on the A-F scale for the particular Transit Service Measure, *from the passengers' perspective*.

For fixed route service, the Manual discusses performance measures specific to different elements of a transit system: *Transit Stops, Routes Segments/Corridors and Systems*. These categories are measured as shown above in the Fixed Route Service Measures Table.

AC Transit Practices versus TCQS Manual Practices:

AC Transit generally uses the TCQS measurements, but within a different template. Various Board Policies reflect a commitment to Efficiency, Effectiveness and Equity.

Board Policy 550 is the most defined of these, and details the impact of service design from a **Transit Performance** viewpoint. This means that service is designed to meet a number of global standards, mainly dealing with how and where service is allocated. Service is generally rationed according to density standards, with more service allocated to the densest areas. In addition, Board Policy 550 also identifies minimum service standards (e.g. service will operate at least every 30 minutes and will always be on a clock, memory-based headway). Finally, Policy 550 identifies a maximum load factor of 1.25 on most routes, a demonstrable measure of service effectiveness. Staff reviews service within these policies for adherence to the Board's direction to maintain an effective service. However, this review is not from the passengers' viewpoint – it is from the viewpoint of the overall system design and service effectiveness.

The Board Policy that most specifically addresses **Transit Service Measures** from the passengers' viewpoint is Board Policy 551, dealing with Title VI compliance. Title VI compliance requires that the District investigate triennially and whenever changes are proposed, the effects of routes and services on minority communities in terms of travel time, number of transfers, cost of trip, and the number of riders affected. While there are components of the TCQS Fixed Route Service Measures in the Title VI process, Policy 551 does not deal with important concepts such as level of service, service frequency, or span of service. Moreover, Policy 551 is not a substitute for the TCQS Transit Service Measure process, which is more comprehensive in scope than the Board Policy, and not focused on a particular community. In any event, staff has not historically provided an A-F ranking of proposed changes.

Transit Performance Measures

The Manual recommends that performance measures include the following:

- Availability
- Service Monitoring
- Community
- Travel Time
- Safety and Security
- Maintenance and Construction
- Economic
- Capacity

AC Transit Practices versus TCQS Manual Practices:

Board Policy 550 deals with most of these Transit Performance Measures. "Availability" is identified as a measurement of distance to a bus route, which varies with the density of the area. Policy 550 directs staff to regularly review and monitor transit service to

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ensure effectiveness. While travel time is not explicitly mentioned, there are standards addressing the operation of Rapid Bus service and a statement of guiding principles that: "AC Transit will aggressively pursue transit priority and transit preferential measures at the most important locations to improve street operation of the transit system, to decrease transit passenger travel times, to improve reliability, and to reduce overall system operating costs." Economic standards are identified in Policy 550, highlighting the lowest performing 25 percent of routes for improvements or discontinuance. In sum, most of the transit performance measures outlined in this section of the Manual are considered by staff when planning or changing service. Staff does not recommend making any changes at this time.

Prior Relevant Board Actions/Policies:

Board Policy 550

Board Policy 551

GM Memo 05-062: Part 1 TCRP Manual

GM Memo 05-022: Review Timeline for Review of TCRP Manual

GM Memo 04-361: Overview of TCRP Manual

Attachments: None

Approved by: Rick Fernandez, General Manager
Nancy Skowbo, Deputy General Manager, Service Development

Prepared by: Anthony Bruzzone, Manager Service and Operations Planning

Date Prepared: April 1, 2005