The Austin Capital Metropolitan Transportation Authority (Metro) is proposing to develop a light rail transit (LRT) system with phased implementation. The locally preferred alternative is development of a 20-mile light rail transit (LRT) system with 26 stations. The proposed LRT system would run north-south from McNeil Road to Ben White Boulevard, and east-west from the central business district (CBD) to 5th and Pleasant Valley. This LRT system is estimated to cost $1,085.8 million (in escalated dollars).

The currently proposed New Starts project is a 14.6 mile, 16 station Minimum Operable Segment (MOS) of the LRT system, and would extend from McNeil Road in north Austin to the CBD. The MOS is planned to provide direct access to the University of Texas, the State Capitol Complex and the Austin CBD. Service is proposed to operate at 10-minute frequencies during peak periods, and 20-minute frequencies during the off-peak. The 14.6 mile MOS is estimated to cost $739.0 million (in escalated dollars) and to serve 37,400 average weekday boardings by the year 2025.

Summary Description

Proposed Project: 14.6 mile, 16 station LRT Minimum Operable Segment

Total Capital Cost ($YOE): $739.0 million
Section 5309 New Starts Share ($YOE): $369.5 million
Annual Operating Cost ($YOE): $23.4 million

Ridership Forecast (2025): 37,400 avg. weekday boardings
17,100 daily new riders

FY 2002 Finance Rating: Low-Medium
FY 2002 Project Justification: Medium
Rating: FY 2002 Overall Project Rating: Not Recommended

The Not Recommended rating is based on the uncertainty of the project's Local Financial Commitment at this time due to the recently failed referendum. The overall project rating applies to this Annual New Starts Report and reflects conditions as of November 2000. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.

Status

In March 1997, Capital Metro and CAMPO (the Capital Area Metropolitan Planning Organization) jointly completed a major investment study (MIS) that recommended a proposed LRT line in the northwest/north central corridor, designated as the Red Line from the CBD to the City of Leander. The southeast corridor, referred to as the Orange Line, was designated as the second highest priority. In October 1997, the Federal Transit Administration authorized Capital Metro to initiate preliminary engineering and to prepare an Environmental Impact Statement for the Red Line alignment.

The Capital Metro Board, in conjunction with selection of a new General Manager in October 1998, initiated additional planning efforts to refine the locally preferred alternative to ensure that the final plan incorporates the area's major destinations and activity centers. The Austin Area in Motion (AIM) study was a comprehensive market research, public involvement and technical analysis addressing future transportation options. Following extensive public involvement, the Capital Metro Board adopted the revised plan on October 25, 1999 and CAMPO formally endorsed the plan on November 8, 1999. In May 2000, Capital Metro initiated the environmental review process for
the proposed 20-mile LRT system, focusing preliminary engineering on the 14.6 mile MOS. The November 2000 voter referendum on the service area's preferences regarding light rail was unsuccessful, making the project's continuation uncertain.

TEA-21 Section 3030(a)(85) authorizes the Austin Northwest/North Central/ Southeast-Airport Light Rapid Transit (LRT) for final design and construction. Through FY 2001, Congress has appropriated $3.96 million in Section 5309 New Start funds to the project.

Evaluation

The following criteria have been estimated in conformance with FTA's Technical Guidance on Section 5309 New Starts Criteria. Information reflects the 14.6 mile minimum operable segment (MOS) of the LRT system. N/A indicates that data are not available for a specific measure.

FTA has evaluated this project as being in preliminary engineering. The project will be re-evaluated when it is ready to advance to final design, and for next year's Annual Report on New Starts.

Justification

The Medium project justification rating reflects across the board average ratings in the criteria, including cost-effectiveness and transit-supportive land use; numbers are based on last year’s submission.

Mobility Improvements

Rating: Medium

Capital Metro estimates that the 14.6 mile MOS will serve 37,400 average weekday boardings, will attract 17,100 daily new riders by 2025, and will result in the following annual travel time savings.

<table>
<thead>
<tr>
<th>Mobility Improvements</th>
<th>New Start vs. No-Build</th>
<th>New Start vs. TSM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Travel Time Savings (Hours)</td>
<td>2.6 million</td>
<td>2.1 million</td>
</tr>
</tbody>
</table>

Based on 1990 census data, there are an estimated 4,446 low-income households within a 1/2 mile radius of the proposed 16 LRT stations in the MOS, or roughly 28 percent of total households within ½ mile of proposed stations.

Environmental Benefits

Rating: Medium

The Austin region is in attainment for ozone and in attainment for carbon monoxide. Capital Metro estimates the following annual emissions reductions.

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>New Start vs. No-Build</th>
<th>New Start vs. TSM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Monoxide (CO)</td>
<td>137</td>
<td>122</td>
</tr>
<tr>
<td>Nitrogen Oxide (NOx)</td>
<td>49</td>
<td>43</td>
</tr>
<tr>
<td>Volatile Organic Compounds (VOC)</td>
<td>18</td>
<td>16</td>
</tr>
<tr>
<td>Particulate Matter (PM10)</td>
<td>170</td>
<td>152</td>
</tr>
<tr>
<td>Carbon Dioxide (CO2)</td>
<td>2,295</td>
<td>278</td>
</tr>
</tbody>
</table>

Values reflect annual tons of emissions reductions.

Capital Metro estimates that in 2025, the MOS will result in the following savings in regional energy consumption (measured in British Thermal Units - BTU).

<table>
<thead>
<tr>
<th>Annual Energy Savings</th>
<th>New Start vs. No-Build</th>
<th>New Start vs. TSM</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTU (million)</td>
<td>1,575</td>
<td>27,941</td>
</tr>
</tbody>
</table>

Values reflect annual BTU reductions

Operating Efficiencies

Rating: Medium

Capital Metro estimates the following costs per passenger mile for the 14.6 mile MOS.
### System Operating Cost per Passenger Mile (2025)

<table>
<thead>
<tr>
<th></th>
<th>No-Build</th>
<th>TSM</th>
<th>New Start</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Operating Cost per Passenger Mile (2025)</td>
<td>$1.18</td>
<td>$1.15</td>
<td>$1.14</td>
</tr>
</tbody>
</table>

Values reflect 2025 ridership forecast and 1999 dollars.

### Cost Effectiveness

**Rating: Medium**

Capital Metro estimates the following cost effectiveness indices.

<table>
<thead>
<tr>
<th></th>
<th>New Start vs. No-Build</th>
<th>New Start vs. TSM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incremental Cost per Incremental Passenger</td>
<td>$11.70</td>
<td>$12.30</td>
</tr>
</tbody>
</table>

Values reflect 2025 ridership forecast and 1999 dollars.

### Transit-Supportive Existing Land Use and Future Patterns

**Rating: Medium**

The *Medium* land use rating reflects existing conditions in the corridor with a mix of moderate to low densities, but including a number of major trip generators. Local agencies have initiated a proactive program to encourage transit-supportive development.

**Existing Conditions:** The proposed 14.6 mile corridor for the MOS connects the Austin area's major activity centers including the University of Texas (UT), the UT Pickle Research area, the State Capitol Complex and the CBD. Total employment for the CBD, including the University of Texas, is 70,000. An additional 30,000 jobs are located within 1/2 mile of stations in the remainder of the MOS corridor. Total population within 1/2 mile of stations in the MOS is estimated at 48,000, at an average density of 4,300 persons per square mile. Densities are highest around the eight stations in the CBD and UT area, while the northernmost two station areas are largely undeveloped. Strong population and employment growth is occurring in the Austin metropolitan area in general; this is resulting in a number of major office and residential development projects in the CBD. By 2025, employment and population in station areas are expected to grow by 20 percent and 57 percent, respectively. There are a considerable number of surface parking lots in the CBD, although surface parking is restricted to 60 percent of normal, city-wide requirements. UT plans to continue to supply a minimal 14,000 parking spaces for a total campus population of 70,000. There are no specific restrictions on parking in other parts of the corridor.

**Future Plans and Policies:** The City of Austin, Capital Metro, and the MPO have all issued transit-supportive policy guidelines and have initiated proactive public involvement programs to develop corridor and station area plans. The City of Austin's Smart Growth Initiative includes a number of activities supportive of transit-oriented development. These include designation of Smart Growth Corridors in coordination with bus and light rail transit services; adoption of a Traditional Neighborhood Development ordinance encouraging higher density, mixed use and transit-oriented development; and anticipated land use plans and development incentives around proposed transit station areas (to be further developed during preliminary engineering). Citizen interest and involvement in planning for Smart Growth and transit-oriented development has been high. Outcomes of land use policies to date have included a number of significant new developments in the CBD, a transit-supportive development proposal for the Triangle Square station area, and a plan for redevelopment of an air force base (not on the MOS alignment) as a neo-traditional neighborhood. The city is conducting a comprehensive parking study and developing a parking management plan for the Austin Downtown area.

### Local Financial Commitment

**Note:** Failure of a November 7, 2000 light rail referendum in Austin in a very close vote is reflected in this annual rating. Capital Metro did not submit an updated financial plan for the FY 2002 New Starts evaluation.

### Proposed Non-Section 5309 Share of Total Project Costs: 50%

The financial plan for the 14.6 mile MOS includes $369.5 million (50 percent of total project costs) in Section 5309 New Starts funding, $103.7 million (14 percent) in existing cash reserves accumulated from the 1% local sales tax revenues, and $265.8 million (36 percent) from future dedicated local sales tax revenues.

### Stability and Reliability of Capital Financing Plan

**Rating: Low-Medium**

The *Low-Medium* capital finance plan rating is based on the uncertainty of the allowed expenditure of sales tax funds for light rail, due to failure of the November 7, 2000 referendum.

**Agency Capital Financial Condition:** The Austin Capital Metropolitan Transportation Authority is in sound financial condition. Capital Metro receives a one cent set-aside from the local sales tax, generating approximately $100 million in revenues annually which can be used for capital as well as operating
expenses. The Board of Directors and Capital Metro management have been working aggressively to reduce the amount of this annual revenue used to fund local operations and to increase the amount reserved for capital projects. The amount used for current operations was reduced to 74% in FY 1998 and to 67% in FY 1999. Cash reserves are estimated to exceed $100 million by the end of FY 2000.

**Capital Cost Estimates and Contingencies:** Capital cost estimates, averaging approximately $51 million per mile for the MOS, are reasonable at this time. Cost estimates are expected to be refined during preliminary engineering. Allowance for contingencies are relatively low.

**Existing and Committed Funding:** Capital Metro proposes that $369.5 million (in escalated dollars) will be available for local capital funding of the MOS by leveraging its existing revenue base of sales tax revenues and passenger fare revenues. The financing plan includes $103.7 million in cash reserves from sales tax proceeds and an additional $265.8 million in anticipated sales tax revenues, reflecting approximately one-third of annual sales tax proceeds that are dedicated to capital project development. The existing financing plan does not assume the issuance of debt, except the potential of a small amount of short term debt to meet cash flow requirements during the construction period.

Assuming the current 1% dedicated sales tax revenue remains in place, the local funding source is considered solid and reasonable to meet projected capital financing requirements. The projected annual growth rate in sales tax revenues is 4% to 5%, compared to a 15% annual growth rate in the 1995-1999 period. Although previous Capital Metro Board action indicated strong policy support for commitment of local sales tax funds to the proposed financing plan, the failure of the November 7, 2000 referendum, which would have allowed the expenditure of sales tax revenues for light rail, casts doubt on the reliability of these funds.

**New and Proposed Sources:** All proposed operating revenue sources currently exist, although their allowed expenditure for light rail is uncertain at this time.

**Stability and Reliability of Operating Finance Plan**

**Rating:** Low-Medium

**Agency Operating Condition:** The agency plans to continue to use two-thirds of the dedicated sales tax revenue, totaling approximately $100 million annually, for current operations and to place the remaining one third in reserve for future capital projects. Capital Metro is attempting to cut its existing system operating costs by redesigning the route network, developing new service policy guidelines and a five-year service plan. Capital Metro's current fare recovery ratio is only 12%, in part due to low fares. The Agency is trying to increase the ratio to 20% by changes in the pass program and more enforcement of fare evasion.

**Operating Cost Estimates and Contingencies:** Annual operating costs for the 14.6 mile MOS are estimated at $23.4 million in 2015 (YOE dollars), reflecting 10-minute peak and 20-minute off-peak service frequencies. Operating cost estimates are considered reasonable at this time. More detailed operating plans are to be developed as preliminary engineering progresses.

**Existing and Committed Funding:** All of the project's proposed sources of operating funding are existing, and are leveraged from passenger fare revenues and the approximately two-thirds of the annual sales tax revenues directed to operating expenses. Capital Metro's service area encompasses one of the strongest growth areas in the country, and projections of continued sales tax growth are reliable. A 30-year cash flow analysis illustrates that ongoing system transit and para-transit operations, system capital replacement needs, as well as LRT operations for the MOS can be financed with currently available sources. However, planned expenditure of sales tax revenues for light rail is uncertain at this time.

**New and Proposed Sources:** Only existing sources are proposed for the construction of the MOS. However, allowance of their expenditure for light rail is uncertain at this time.

### Locally Proposed Financing Plan (Reported in $YOE)

<table>
<thead>
<tr>
<th>Proposed Source of Funds</th>
<th>Total Funding ($million)</th>
<th>Appropriations to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section 5309 New Starts</td>
<td>369.5</td>
<td>($3.96) million appropriated through FY 2001</td>
</tr>
<tr>
<td>Local:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash Reserves (from sales tax revenues)</td>
<td>103.7</td>
<td></td>
</tr>
<tr>
<td>Dedicated 1% sales tax revenues</td>
<td>265.8</td>
<td></td>
</tr>
</tbody>
</table>
NOTE: Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.

Light Rail Corridors
Austin, Texas