Southeast Corridor LRT

Houston, Texas

(November 2009)

The Metropolitan Transit Authority of Harris County (METRO) is proposing to construct a 6.5-mile, light rail transit (LRT) line from the Houston central business district (CBD) to the Palm Center in the vicinity of Martin Luther King, Jr. Boulevard/Griggs Road. The proposed LRT line would operate in an exclusive guideway with limited mixed traffic operations. The majority of the LRT line would operate at-grade (6.42 miles), while the remaining 0.14 miles would be elevated to avoid a natural habitat (Brays Bayou). The project includes the purchase of 29 light rail vehicles and construction of 13 stations and a maintenance facility. Service would operate every six minutes during peak and off peak periods, including weekends, and would provide a transfer to the current METRO Rail Red Line via the existing Main Street Square station in the CBD. No parking spaces would be built as part of the project. The proposed Palm Center terminus would be adjacent to METRO's current Southeast Transit Center that includes a 1,100-space park-n-ride lot. The project would be the first operable segment of an LRT line that METRO plans to eventually extend to Hobby Airport.

The corridor is bounded by Interstate 45 to the east, one of the most heavily-traveled freeways in the nation, State Highway 288 to the west, and Interstate 610 to the south. The corridor includes a major portion of downtown Houston, including its commercial core and growing residential population. The corridor's street network is discontinuous and does not provide sufficient connectivity to major activity centers. Although the frequency of corridor bus service is high, many of the routes are circuitous with many stops so that transit travel times are not competitive with auto travel. The corridor represents five percent of METRO's service area, but includes 25 percent of METRO's total bus ridership.

Summary Description	
Proposed Project:	Light Rail Transit 6.5 Miles 10 Stations
Total Capital Cost ($YOE):	$822.91 Million (includes $55.6 million in finance charges)
Section 5309 New Starts Share ($YOE):	$450.00 Million (54.6%)
Annual Forecast Year Operating Cost:	$12.50 Million
Ridership Forecast (2030):	28,700 Average Weekday Boardings
	4,500 Daily New Riders
Opening Year Ridership Forecast (2013):	17,200 Average Weekday Boardings
FY 2011 Local Financial Commitment Rating:	**Medium**
FY 2011 Project Justification Rating:	**Medium**
FY 2011 Overall Project Rating:	**Medium**

METRO will use an innovative project delivery method whereby a Facility Provider, comprised of a team of engineering, construction, construction management and vehicle manufacturing firms, will complete design, finalize the construction phasing approach, and expedite construction of several rapid transit lines throughout Houston. The Facility Provider will also be responsible for operation and maintenance of the proposed LRT line. METRO's schedule anticipates a Full Funding Grant Agreement (FFGA) for the project in early 2010. METRO provided updated information to FTA in late November 2009 as part of its FFGA application, which is still under review. Hence, the rating described herein reflects conditions as of August 2009, when the project was approved into final design. The capital cost of the project in METRO's latest submission is not substantially different from that assumed at entry into final design.

Project Development History and Current Status

METRO completed an alternatives analysis study on the Southeast-Universities-Hobby Corridor in November 2003. LRT was the locally preferred alternative. The project is included in the Houston-Galveston Area Council's *2035 Regional Transportation Plan* and the 2008-2011 Transportation Improvement Program. The project is also included in the *2025 METRO Solutions Plan* that was passed by Houston-area voters in November 2003.

In April 2005, FTA approved the Southeast Corridor LRT project into preliminary engineering (PE). In August 2005, METRO notified FTA that it was redirecting the PE effort from LRT to bus rapid transit (BRT). In October 2006, FTA approved the BRT project into PE. In October 2007, METRO's Board voted to implement LRT in the Southeast Corridor. In late November 2007, FTA notified METRO that the LRT project could not retain the PE status that was extended to the BRT project. In January 2007, FTA issued a Final Environmental Impact Statement (FEIS) for BRT. FTA issued an environmental Record of Decision (ROD) for BRT in February 2007. In late November 2007, FTA withdrew the February 2007 environmental ROD since METRO was no longer pursuing BRT. A supplemental FEIS for the LRT was prepared and released in May 2008. FTA issued a ROD in July 2008. FTA approved final design for the project in August 2009.

Significant Changes Since FY 2010 Evaluation (November 2008)

METRO completed PE on the Southeast Corridor LRT project in early 2009. FTA completed a risk assessment of the project's budget, schedule and scope in April 2009. As a result, the project's capital cost estimate was revised to reflect the higher level of design and to include an increased level of contingency. The financial plan was revised to reflect the updated capital cost estimate, including an adjusted estimate of finance charges.

Project Justification Rating: Medium

The project justification rating is based on the average of the ratings for cost effectiveness and transit-supportive land use. Per FTA's 2006 *Final Guidance on New Starts Policies and Procedures*, once a project has been approved into final design, the project is not subject to any changes in New Starts policy, guidance, and procedures. Thus, the revised weighting of the project justification criteria that took effect in July 2009 does not apply to this project.

Cost Effectiveness Rating: Medium

The cost effectiveness rating reflects the level of travel-time benefits (7,000 hours each weekday, including special events) relative to the project's capital and operating costs based upon a comparison to a baseline alternative.

Cost Effectiveness	
	New Start vs. Baseline
Cost per Hour of Transportation System User Benefit	$23.07*
Incremental Cost per Incremental Trip	$25.95

* Indicates that measure is a component of Cost Effectiveness rating.

Transit-Supportive Land Use Rating: Medium-Low

The rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating.

Existing Land Use: Medium-Low

- Outside of the high-density CBD, most of the Southeast Corridor is characterized by low-density commercial, light industrial, and mixed residential development laid out on a grid pattern of streets.
- Pedestrian access is hindered by drainage ditches, wide streets, a lack of curb cuts, expansive parking lots, and in some cases, missing sidewalks. Two universities are present, with many of their athletic facilities, housing and academic buildings within a half mile of the proposed alignment.
- Station area population densities rate “low” by FTA benchmarks, averaging 3,200 persons per square mile. A total of 150,000 jobs are located in proximity to the corridor’s stations, mostly in the Houston CBD, which has a total employment of 130,000.

Transit-Supportive Plans and Policies: Medium-Low

- Limited efforts have been made at regional planning and growth management. In 2005 the Houston-Galveston Area Council (local metropolitan planning organization) joined with the citizen-led Blueprint Houston to undertake Envision Houston Region, an initiative designed to create a regional “vision” for the future growth of the area. The results informed the long-range transportation plan update but have not led to further implementation activities to shape regional land use patterns.
- Some station area planning activities have been initiated. METRO is undertaking a Station Area Work Program to address barriers to station area development, tools to leverage development, and policy for the development of each station area. The City of Houston is developing an Urban Corridor Planning Ordinance, which will provide a planning framework for development in high capacity transit corridors and in specific station areas. METRO has established a joint development/transit-oriented development program that will initiate specific development projects.
- The City of Houston is not zoned. Private deed restrictions are often used for both residential and commercial land development to ensure that standards for land use are maintained, but many of the neighborhoods in the Southeast Corridor lack such covenants. Plans for two Tax Increment Reinvestment Zones in the corridor include design guidelines to promote a more densely developed, pedestrian-friendly, walkable environment, but do not identify implementation mechanisms aside from financing infrastructure improvements.

Performance and Impacts of Policies: Medium

- Local officials believe the existing Red Line, which opened in January 2004, has been a catalyst for residential and commercial development in the city’s downtown and Midtown areas. However, aside from a significant amount of townhouse development just east of the CBD there is no evidence to date of transit-supportive development in the Southeast Corridor.
- Strong growth is forecast for the corridor and small and large vacant and underutilized lots throughout the corridor provide additional development potential, if land use policies and market forces can be aligned.

Other Project Justification Criteria

Mobility Improvements Rating: Medium	
	New Start vs. Baseline
Transportation System User Benefits Per Passenger Mile (Minutes)	3.2
Number of Transit Dependents Using the Project	14,200
Transit Dependent User Benefits per Passenger Mile (Minutes)	3.2

Environmental Benefits Rating: High	
Criteria Pollutant Status	**EPA Designation**
8-Hour Ozone (O_3)	Severe Non-Attainment Area

Operating Efficiencies Rating: N/A		
	Baseline	**New Start**
System Operating Cost per Passenger Mile (current year dollars)	N/A	N/A

Local Financial Commitment Rating: Medium

The local financial commitment rating is based on the weighted average of the ratings assigned to each of the following criteria: the New Starts share of project costs is weighted 20 percent; the strength of the capital finance plan is weighted 50 percent; and the strength of the operating finance plan is weighted 30 percent.

Section 5309 New Starts Share of Total Project Costs: 54.6%
Rating: Medium-High

Section 3043(h)(1) in SAFETEA-LU states, "for the purpose of calculating the non-Federal share of the net project cost of any new fixed guideway capital project currently included in the Advanced Transit Program ("Metro Solutions Plan") sponsored by the Metropolitan Transit Authority of Harris County, Texas, the Secretary shall include $324,000,000 in State and local funds expended for the design and construction of the Red Line Light Rail Transit system that operates in Harris County, Texas." METRO has decided to apply $162 million of its contribution to the Red Line as credit toward the Southeast Corridor LRT project. Application of the credit allowed for in the legislative language lowers the New Starts share to approximately 49 percent. The credit increases the share rating from *Medium* to *Medium-High*.

Locally Proposed Financial Plan		
Source of Funds	**Total Funds ($million)**	**Percent of Total**
Federal: Section 5309 New Starts	$450.00	54.6%
Local: METRO Dedicated Sales Tax	$372.91	45.4%
Total:	**$822.91**	100.0%

NOTE: The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

Capital Finance Plan Rating: Medium

The capital finance plan rating is based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency capital condition is weighted 25 percent, the commitment of capital funds is weighted 25 percent, and the capital cost estimate, planning assumptions and capital funding capacity subfactor is weighted 50 percent.

Agency Capital Condition: Medium-Low

- The average age of METRO's bus fleet is 8.8 years, which is slightly older than the industry average.
- METRO has no outstanding debt. Therefore, no bond ratings have been issued.

Commitment of Capital Funds: High

- METRO's sales tax revenues, which are existing and committed, will cover the entire non-New Starts share of the first minimum operable segment of the Southeast Corridor LRT project.

Capital Cost Estimate, Planning Assumptions, and Financial Capacity: Medium

- Assumptions on sales tax growth, inflation, and Federal funding are reasonable compared to historical experience.
- The capital cost estimate is reasonable.

Operating Finance Plan Rating: Medium

The operating finance rating is based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency operating condition is weighted 25 percent, the commitment of operating funds is weighted 25 percent, and the operating cost estimates, planning assumptions and operating funding capacity subfactor is weighted 50 percent.

Agency Operating Condition: Medium-Low

- METRO's current ratio of assets to liabilities, as reported in its most recent audited financial statements, was just over 1.0 in FY 2008.
- METRO's transit services have increased in the last five years.

Commitment of Operating Funds: High

- Over 75 percent of operating funding, including fare revenues, sales tax revenues, operating grants, miscellaneous revenue (advertising and ID card fees), and interest income, is committed.

Operating Cost Estimates, Planning Assumptions, and Financial Capacity: Medium-Low

- Projections of growth in operating and maintenance costs and farebox revenues are optimistic compared to historical experience.
- The financial plan shows projected cash balances exceeding 25 percent of annual operating costs.

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