East Corridor

Denver, Colorado

(November 2009)

The Denver Regional Transportation District (RTD) is planning a 22.8-mile commuter rail electric multiple unit (EMU) line from downtown Denver through Denver, Globerville/Swansea/Elyria, North Park Hill, Stapleton, Aurora/Fitzsimons, Montebello, and Gateway to Denver International Airport. Six new stations and approximately 3,500 park and ride spaces would be constructed and 22 vehicles would be purchased. Service would operate at 7.5 minute frequencies during peak periods, and 15 minute frequencies during off peak periods.

The East Corridor contains a limited number of transportation thoroughfares in the east-west direction with Interstate 70 being the primary thoroughfare. Existing arterial streets traveling through the corridor are not continuous, making local grid bus service connecting all consecutive neighborhoods infeasible. The East Corridor project will provide an additional transportation option in the corridor.

The East Corridor is part of RTD's FasTracks expansion program of major transit investments in the Denver region. It will be constructed as part of the larger RTD project known as the East and Gold Line Enterprise (Eagle Project) utilizing a design-build-finance-operate-maintain project delivery method. A Concessionaire Team (CT) composed of engineering, construction, construction management, financial advisors and vehicle firms would design and construct the Eagle Project, help to finance the project, and have an equity stake. The CT, in cooperation with RTD, would operate the East Corridor project, though a 50 year concessionaire agreement. The project is part of FTA's Public Private Partnership Pilot Program.

Summary Description	
Proposed Project:	Commuter Rail EMU 22.8 Miles 6 Stations
Total Capital Cost ($YOE):	$1,765.10 Million (includes $46.10 million in finance charges)
Section 5309 New Starts Share ($YOE):	$850.44 Million (48.2%)
Annual Forecast Year Operating Cost:	$31.91 Million
Ridership Forecast (2030):	43,400 Average Weekday Boardings 11,450 Daily New Riders
Opening Year Ridership Forecast (2017):	27,500 Average Weekday Boardings
FY 2011 Local Financial Commitment Rating:	**Medium**
FY 2011 Project Justification Rating:	**Medium**
FY 2011 Overall Project Rating:	**Medium**

Project Development History and Current Status

A Major Investment Study for the East Corridor was initiated in 1997. In 2004, the corridor was adopted into the "FasTracks" plan to expand rail and bus service throughout the RTD service area. In November 2004, voters approved the FasTracks plan and tax increase. A Locally Preferred Alternative was identified in 2007, and adopted into the metropolitan planning organization's fiscally constrained long range transportation plan. RTD issued a Draft Environmental Impact Statement (EIS) on the East Corridor in January 2009. FTA approved the East Corridor into preliminary engineering in April 2009.

A Final EIS was completed in August 2009. A Record of Decision was approved in November 2009. Entry into final design is anticipated in April 2010.

Significant Changes Since FY 2010 Evaluation (November 2008)

RTD recalibrated its travel forecasting model and updated its ridership estimates. The revised forecasts showed 43,400 average weekday riders in 2030 as compared to the forecast of 37,900 average weekday riders assumed at the time of preliminary engineering approval. RTD also determined that fewer rail vehicles were necessary, which allowed for construction of a smaller rail fleet maintenance facility. These factors, in combination with lower assumed material prices due to current market conditions, lower escalation costs, and lower contingencies contributed to a 16 percent lower capital cost estimate of $1,765.00 million compared to last year's cost estimate of $2,043.70 million.

Project Justification Rating: Medium

The project justification rating is based on the weighted average of the ratings assigned to each of the following criteria: the cost-effectiveness criterion is weighted 20 percent; the transit supportive land use criterion is weighted 20 percent; the economic development criterion is weighted 20 percent; the mobility improvements criterion is weighted 20 percent; the environmental benefits criterion is weighted 10 percent; and the operating efficiencies criterion is weighted 10 percent.

Cost Effectiveness Rating: Medium

The cost effectiveness rating reflects the level of travel-time benefits (9,000 hours each weekday) relative to the project's capital and operating costs based on a comparison to a baseline alternative.

Cost Effectiveness	
	New Start vs. Baseline
Cost per Hour of Transportation System User Benefit	$18.14*
Incremental Cost per Incremental Trip	$13.52

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

Transit-Supportive Land Use Rating: Medium-Low

The land use rating reflects the population and employment densities within ½-mile of proposed station areas.

- Existing land uses in the new station areas include primarily industrial with some residential and commercial uses. Average population density across new station areas is 1,100 persons per square mile. Total employment served is 121,400 (including 102,700 in the Denver CBD). In the CBD, the ratio of parking spaces to employees is 0.44. Parking costs average $7 per day in the Denver CBD, and generally parking is free and available in other station areas except Denver International Airport (DIA) where parking costs $9 to $27 per day.
- Pedestrian facilities are present in the established neighborhoods in the two station areas closest to the Denver CBD but few sidewalks exist in other station areas. Despite its proximity to the Stapleton Airport traditional neighborhood redevelopment area, a recently-developed shopping center in the Central Park Station area is largely auto-oriented with low-rise buildings and large parking lots.

Economic Development Rating: Medium-High

The economic development rating is based upon the average of the ratings assigned to the subfactors below.

Transit-Supportive Plans and Policies: Medium-High

- Land use in the corridor is controlled by the City and County of Denver and City of Aurora. Area plans exist for half the station areas, and planning is underway for the other proposed stations. The current area and sub-area plans generally encourage increased development and transit-oriented projects. Multiple regional plans support increasing density in urban centers, and Denver Union Station is undergoing development into a mixed-use transportation hub with 1.3 million square feet of new development planned.
- Existing zoning at the two stations closest to the Denver CBD allows low to moderate density of seven to15 units per acre. Denver has established several residential and commercial mixed-use zones, as well as a Transit-Mixed Use zone (T-MU-30). An area zoned T-MU-30, permitting FAR of 5.0 and parking reductions of 25 percent, is at the core of the Denver Union Station area, and the Central Park and 40th/Airport Station areas include some mixed-use zones. Denver's zoning code is undergoing a comprehensive update anticipated to support TOD and expected in late 2008. The City of Aurora, which will have jurisdiction over all or part of two stations, has established zoning with a maximum FAR for the core of a city center subarea of 1.4, and is providing guidance on transit-oriented character.

Performance and Impacts of Policies: Medium-High

- Extensive development has occurred in the past decade near Denver Union Station, and examples of TOD are increasing in other existing station areas in the Denver region. Development opportunities at the 40th/40th and Colorado Stations are primarily infill or adaptive reuse projects, and several residential and retail projects have been proposed at the 40th/40th Station.
- Three station areas have significant undeveloped or underutilized land (Central Park, Peoria, and 40th/Airport). Large-scale redevelopment plans of more than 4,000 acres each, including residential and commercial development, are planned and underway in the areas that include the Central Park and 40th/Airport Stations. The stations also benefit from proximity to freeways which may aid marketability.
- DIA is forecast to add significant new employment and to more than double the number of enplanements by 2030.

Other Project Justification Criteria

Mobility Improvements Rating: Medium-Low	
	New Start vs. Baseline
Transportation System User Benefit Per Passenger Mile (Minutes)	1.0
Number of Transit Dependents Using the Project	2,500
Transit Dependent User Benefits per Passenger Mile (Minutes)	1.0

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

Operating Efficiencies Rating: Medium		
	Baseline	**New Start**
System Operating Cost per Passenger Mile (current year dollars)	$0.51	$0.46

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: 48.2%
Rating: Medium-High

Locally Proposed Financial Plan

Source of Funds	**Total Funds ($million)**	**Percent of Total**
Federal:		
Section 5309 New Starts	$850.44	48.2%
FHWA Flexible Funds (CMAQ)	$20.85	1.2%
Local:		
Bond Proceeds	$76.64	4.3%
Sales & Use Tax	$275.19	15.6%
Concessionaire Financing – Private Equity and Debt	$505.50	28.6%
Local Jurisdiction Share	$36.48	2.1%
Total:	**$1,765.10**	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-High

- The average age of RTD's bus fleet is 5.5 years, which is younger than the industry average.
- RTD's good bond ratings, which were issued in 2008, are as follows: Moody's Investors Service Aa3; Standard & Poor's Corporation AAA; and Fitch AA.

Commitment of Capital Funds: Medium-High

- Approximately 41 percent of the non-New Starts funding is committed. The sources of non-Section 5309 New Starts funds for the project are Congestion Mitigation and Air Quality (CMAQ) funds, revenues derived from the local sales and use tax, bond proceeds backed by the sales tax, concessionaire equity and debt, and local government contributions.

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

- RTD has redefined the schedule of FasTracks to fit within the combination of substantial cost increases and less than anticipated sales and use tax revenues.
- Many capital planning assumptions and cost estimates are optimistic.
- The financial plan shows that RTD has the financial capacity to cover only minor cost increases or funding shortfalls equal to 10 percent or less of the estimated project cost.

Operating Finance Plan Rating: Medium

The operating finance plan 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 Financial Condition: Medium

- RTD's current ratio of assets to liabilities as reported in its most recent audited financial statement is excellent at 4.9.
- RTD has recently made minor service reductions and unscheduled fare increases due to the economic recession.

Commitment of Operating and Maintenance Funds: High

- All operating funding is committed, including fare revenues, increased sales and use tax revenues, and parking revenues.

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

- Several operating cost estimates and revenue forecasts are optimistic relative to historical experience.
- Projected cash balances and reserve accounts are less than eight percent (one month) of annual systemwide operating expenses.

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