Gold Line

Denver, Colorado

(November 2009)

The Denver Regional Transportation District (RTD) is planning a 10.8-mile commuter rail line using electric multiple unit vehicles from downtown Denver westward to Ward Road in Wheat Ridge. Seven new stations and 2,250 park and ride spaces would be constructed and 22 vehicles would be purchased. When completed, the Gold Line would connect the communities of Wheat Ridge, Arvada and Adams to downtown Denver. Service would operate at 15 minute frequencies.

Currently there is a lack of continuous street connections between the project corridor and downtown Denver, resulting in traffic using north-south arterials and Interstates 70 and 25 to access downtown Denver. Travel time by transit is currently 20 minutes by express bus on I-70 and I-25 from Ward Road to downtown Denver, however, this time can vary by as much as eight minutes due to congestion. All other major east to west arterials do not provide, and are not planned to provide, direct connections into downtown over the next 20 years. The Gold Line is intended to provide direct, fast and frequent service as a convenient alternative to automobile use.

The Gold Line 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 Gold Line 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 10.8 Miles 7 Stations
Total Capital Cost ($YOE):	$715.53 Million (includes $87.90 million in finance charges)
Section 5309 New Starts Share ($YOE):	$180.00 Million (25.2%)
Annual Forecast Year Operating Cost:	$17.83 Million
Ridership Forecast (2030):	14,000 Average Weekday Boardings
	3,000 Daily New Riders
Opening Year Ridership Forecast (2017):	10,100 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 Gold Line was initiated in 1998. 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 Gold Line in July 2008. FTA approved the Gold Line into preliminary engineering in April 2009. A Final EIS was issued in March 2009. A Record of Decision was approved in November 2009. Entry into final design is anticipated in April 2010.

The capital cost estimate in some instances excludes costs associated with shared operations with other lines. For example, RTD is going to rebuild Denver Union Station (DUS) downtown as part of a separate multimodal project to accommodate commuter rail service. In addition, the trackway and electrification between DUS and Pecos will be built as part of RTD's locally funded Northwest Rail Corridor Project, which is anticipated to be constructed in advance of the completion of the Gold Line. In other instances, the capital cost estimate includes shared costs for funding the completion of the commuter rail maintenance facility.

Significant Changes Since FY 2010 Evaluation (November 2008)

RTD recalibrated its travel forecasting model and updated its ridership estimates. The revised forecasts show 14,000 average weekday riders in 2030 as compared to the forecast of 16,800 average weekday riders assumed at the time of preliminary engineering approval. RTD also determined that fewer rail vehicles were necessary, which allows 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 20 percent lower capital cost estimate of $716.00 million compared to last year's cost estimate of $860.00 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 (2,348 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	$24.90*
Incremental Cost per Incremental Trip	$17.52

*****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.

- Average population density across new station areas is 2,400 persons per square mile. Total employment served is 114,900 (including 102,700 in the Denver CBD. In the Denver CBD, the ratio of parking spaces to employees is 0.44, and generally parking is free and available in other station areas.
- Existing land uses in the new station areas include primarily industrial with some areas of low- to moderate-density, single-family residential and commercial uses. Pedestrian facilities are limited in most station areas, except in the few established residential neighborhoods and the Olde Town Arvada Station area with an existing historic town center.

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, Adams County, City of Arvada, and City of Wheat Ridge. Neighborhood transit-oriented development (TOD) plans have been completed or are underway for each of the seven station areas, and will serve as the basis for rezoning and other improvements. All current area and sub-area community land use plans contain objectives that explicitly support the transit project and that generally encourage transit-oriented projects, pedestrian orientation, and dense, mixed-use patterns of development.
- 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. Incentives to promote corridor development under consideration include density bonuses, reduced parking requirements, tax-increment financing, and urban renewal districts.
- Existing zoning ordinances throughout the corridor permit low to moderate density residential development, ranging from 6 to 20 units per acre. Denver has established a Transit-Mixed Use zone permitting a floor area ratio of 5.0 and parking reductions of 25 percent, which is at the core of the Denver Union Station area. In each of the jurisdictions, rezoning efforts have been initiated or are planned for 2009 to support station area planning efforts, which will include higher-density and mixed-use districts and improved transit-oriented character in station areas.

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. New residential and retail development and redevelopment has recently been completed in three of the proposed station areas along the Gold Line.
- Significant opportunities for development and redevelopment exist at four station areas with 50 percent or more undeveloped or underutilized land (Pecos, Federal, Arvada Ridge, and Ward). Limitations exist at the Pecos Station area that falls within historical landfill areas so new development would require mitigation. The three other stations in the corridor have more potential for infill development and less vacant land. They also benefit from proximity to freeways which may aid marketability. Improved connections between established residential areas in the Sheridan and 38th Station areas may support transit demand, although the 38th Street Station area is bisected by rail yards with only one current pedestrian connection.

Other Project Justification Criteria

Mobility Improvements Rating: Medium-Low	
	New Start vs. Baseline
Transportation System User Benefit Per Passenger Mile (Minutes)	1.8
Number of Transit Dependents Using the Project	1,300
Transit Dependent User Benefits per Passenger Mile (Minutes)	1.7

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)	$0.46	$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: 25.2%
Rating: High

Locally Proposed Financial Plan		
Source of Funds	**Total Funds ($million)**	**Percent of Total**
Federal:		
Section 5309 New Starts	$180.00	25.2%
FHWA Flexible Funds (CMAQ)	$13.96	2.0%
Local:		
Bond Proceeds	$19.34	2.7%
Sales & Use Tax	$144.89	20.3%
Concessionaire Financing – Private Equity and Debt	$342.67	47.9%
Local Jurisdiction Share	$14.67	2.1%
Total:	**$715.53**	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

- Approximately 33 percent of non-New Starts funding is committed or budgeted. 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 a 0.4 percent sales and use tax, as provided for by FasTracks, concessionaire equity and debt, and local government contributions.

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

- RTD has stretched the schedule of FasTracks to fit within the combination of substantial cost increases and underperforming sales and use tax revenue.
- 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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