West Corridor LRT

Denver, Colorado

(November 2002)

Description

The Regional Transportation District (RTD) is proposing the West Corridor project, an 12.1-mile light rail transit (LRT) system extending from the existing LRT line at I-25 and 13th Avenue in Denver along the former Associated Rail right-of-way and US 6 to US 6/US 40 in Jefferson County. The proposed project connects with the existing 5.3-mile Central Corridor light rail line in downtown Denver near the existing Auraria station. At this location, the West Corridor would also connect with the Central Platte Valley (CPV) light rail extension serving Lower Downtown.

The West Corridor has long been recognized as one of the Denver region's highest priority travel corridors. The West Corridor is situated between, and is being proposed to relieve congestion on two parallel roadways with high volumes, as demonstrated by their Average Daily Trips (ADT): US 6 (148,000 ADT) and US 40/West Colfax Avenue (51,900 ADT). Both corridors are constrained by existing development. Roadway widening was eliminated from further consideration during the Major Improvement Study because of severe community impacts and displacements of adjacent residential and business centers. The West Corridor crosses four major north-south arterial roads (35,000+ ADT each), serving as a backbone to connecting trips. The West Corridor will extend one of the region's premier bicycle/pedestrian trails as part of the LRT right-of-way, offering many opportunities for the integration of non-motorized transportation and neighborhood-based trips. Its location will also provide important mobility connections between employment centers such as the Denver Central Business District (CBD) and the Federal Center; Union Square, Colorado Mills and Denver West Office Park, and the Jefferson County Government Center. Direct access to educational centers includes the Auraria Campus (University of Colorado at Denver, Metropolitan State College of Denver, and Community College of Denver), and Red Rocks Community College.

Summary Description	
Proposed Project:	Light Rail Transit Line 12.1 Miles, 13 Stations
Total Capital Cost ($YOE):	$686.6 Million
Section 5309 New Starts Share ($YOE):	$412.0 Million (60%)
Annual Operating Cost (2025 $YOE):	$26.3 Million
Ridership Forecast (2025):	31,100 Average Weekday Boardings 4,550 Daily New Riders
Opening Year Ridership Forecast (2014):	26,700 Average Weekday Boardings
FY 2004 Finance Rating:	**Medium**
FY 2004 Project Justification Rating:	**Medium**
FY 2004 Overall Project Rating:	**Recommended**

The *Recommended* rating is based on the project's justification criteria and capital and operating plan. The overall project rating applies to FTA's approval of Preliminary Engineering **and reflects conditions as of November 2002**. Project evaluation is an ongoing process. As New Starts projects proceed through development, the estimates of costs, benefits, schedules and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

The Administration is seeking legislation that would limit the Federal New Starts share to no more than 50 percent beginning in FY2004. Future ratings of this project would be affected by that change.

Status

The West Corridor has been the focus of study for over 30 years. These studies have consistently identified the need for greater person-carrying capacity in the West Corridor. Recognizing its strategic importance to the region, RTD purchased the rail right-of-way in 1988.

The Regional Transportation District (RTD), in cooperation with the Denver Regional Council of Governments (DRCOG) and the Colorado Department of Transportation (CDOT), completed a Major Investment Study (MIS) on the corridor in July 1997. The MIS resulted in the selection of a multi-modal package of light rail transit (LRT) and roadway transportation management improvements. The DRCOG Board has included the LRT Locally Preferred Alternative in the 2020 Long Range Regional Transportation Plan. FTA approved the request to enter Preliminary Engineering in March 2001. A Draft Environmental Impact Statement is expected to be completed in January 2003, with the Final Environmental Impact Statement and Record of Decision expected later in 2003.

TEA-21 Section 3030 (a)(25) authorizes the project for Preliminary Engineering. Through FY 2002, Congress has not appropriated any Section 5309 New Starts funds for this project.

Evaluation

The following criteria have been estimated in conformance with FTA's *Reporting Instructions on Section 5309 New Starts Criteria*, updated in June 2002. The project will be reevaluated for next year's New Starts Report and when it is ready to advance into Final Design.

Mobility Improvements Rating: Low-Medium		
	New Start vs. Baseline	
Average Employment Per Station	2,622	
Average Low Income Households Per Station	290	
Transportation System User Benefit Per Project Passenger Mile (Minutes)	2.0	
Environmental Benefits Rating: High		
Criteria Pollutant Reduced (tons)	**New Start vs. Baseline**	
Carbon Monoxide (CO)	313	
Nitrogen Oxide (NO_x)	7	
Hydrocarbons	11	
Particulate Matter (PM_{10})	0	
Carbon Dioxide (CO_2)	1,004	
Annual Energy Savings (million) BTU	2,184	
Cost Effectiveness Rating: Low-Medium		
	New Start vs. Baseline	
Cost per Transportation System User Benefit (current year dollars/hour)	$23.24	
Operating Efficiencies Rating: Medium		
	Baseline	**New Start**
System Operating Cost per Passenger Mile (current year dollars)	$0.53	$0.54

[ ] indicates an increase in emissions.

Project Justification
Rating: Medium

The *Medium* project justification rating reflects the below average cost effectiveness and transit supportive land use policies. Based on 2000 Census data, there are an estimated 3,764 low-income households within a ½-mile radius of the proposed stations, representing 27 percent of all households located within ½-mile of the stations. There are an estimated 34,100 employees within ½-mile of the transit station areas. The Denver region is classified as a “maintenance area” for ozone, and a “serious non-attainment area” for carbon monoxide. The Denver West Corridor Light Rail project has an incremental cost per incremental trip value of $29.28.

Existing Land Use, Transit-Supportive Land Use Policies and Future Patterns
<u>Rating: Medium</u>

The *Medium* land use rating reflects supportive growth management policies and tools to implement land use policies balanced by current suburban and auto-oriented development in much of the corridor.

Existing Conditions: The West Corridor project will serve the Denver CBD via the existing Central Platte Valley LRT line to Union Station. Densities and total employment and population levels are low to moderate throughout the corridor. The corridor contains an estimated 34,100 jobs and 34,000 residents within a ½-mile radius of stations (not including the CBD), at densities averaging about 4,000 persons and 4,000 jobs per square mile. The corridor includes older industrial areas south and west of downtown, with significant redevelopment potential; established moderate-density residential neighborhoods in the Cities of Denver and Lakewood; and a mix of more suburban industrial, commercial, residential, and undeveloped land near the western end of the corridor. Station areas are generally pedestrian-accessible, but land use patterns are predominantly auto-oriented.

Future Plans, Policies, and Performance: The metropolitan area and the corridor are growing rapidly. Metropolitan area population is projected to grow by 50 percent between 2000 and 2025. The Denver Regional Council of Governments is working to establish an Urban Growth Boundary and other growth management policies; a number of jurisdictions in the region have signed a growth management agreement known as the Mile High Compact. The comprehensive plans of Denver and other municipalities in the corridor support transit-oriented development. Several plans, such as The Denver Comprehensive Plan (adopted in 2000), City of Lakewood Comprehensive Plan, Future Jeffco: A Strategic Plan, and City of Golden Comprehensive Plan include policies and identified areas for mixed use and higher densities. Blueprint Denver (adopted in 2000 as an implementation plan for the Denver Comprehensive Plan), identifies several existing and future LRT stations as “Areas of Change” with high transit oriented development potential. The City of Denver's zoning regulations permit relatively high densities and mixed use development in certain areas, and the city is working to adopt overlay districts that can be applied to transit station areas. The Regional Transit District recently created a Transit Oriented group that works with municipalities, landowners, and developers to coordinate and promote transit-oriented development at bus and rail station sites. While Denver’s suburbs continue to expand rapidly, examples of high-density, mixed-use development are beginning to be demonstrated on infill sites and in existing LRT station areas in the region. A number of projects currently underway and proposed in both Denver and Lakewood – the jurisdictions covering most of the corridor – are exhibiting strong pedestrian-oriented design features. New development and redevelopment opportunities exist at both ends of the West Corridor.

Local Financial Commitment
<u>Rating: Medium</u>

The *Medium* local financial commitment rating was determined by the *Medium* rating for the capital financing plan and the *Medium* for the operating finance plan.

Proposed Non-Section 5309 New Starts Share of Total Project Costs: 40%
Rating: Medium

The project's financial plan includes Section 5309 New Starts funding, local funding (bond proceeds), and local/private contributions.

Locally Proposed Financial Plan		
Proposed Source of Funds	**Total Funding ($million)**	**Percent of Total**
Federal: Section 5309 New Starts	$412.0	60.0 %
Local: RTD Bond Proceeds	$257.5	37.5 %
Other: Local/Private Contributions	$17.2	2.5 %
Total:	**$686.6**	100.0 %

NOTE: Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Total may not add due to rounding.

Stability and Reliability of Capital Financing Plan
Rating: Medium

The *Medium* rating reflects the solid financial condition of RTD tempered by the optimistic forecast of sales and use tax revenues that will be used to issue bonds to support the project's capital cost.

Agency Capital Financial Condition: The agency is in sound capital financial condition. The average age of the bus fleet (seven years) and the rail fleet and facilities (five years) reflect the agency's sound capital condition. RTD has earned an AA- bond rating from Standard and Poor's and an A-1 bond rating from Moody's.

Capital Cost Estimate and Contingencies: RTD is working toward the establishment of the final alignment based on needs, impacts, and funding. Capital costs reflect inflation rates of 3.3 percent through 2015, increasing to 3.8 to 4.0 percent from 2016 through 2025. The West Corridor cost estimates include a ten percent contingency. Debt assumptions used by the RTD regarding the financing of capital costs are conservative based on today's credit markets.

RTD currently has a blanket exemption from the rebate provisions of the Taxpayer Bill of Rights (TABOR), which expires at the end of 2005. Under TABOR the government unit receiving tax revenues is allowed to "keep" revenues in an amount equal to the prior year's collections adjusted for growth factors. Revenues above this amount are subject to rebate to the residents of Colorado. RTD has been exempt from the TABOR rebate provisions for expenses incurred on the Southeast Corridor. In the West Corridor analysis, RTD assumed that this exemption would be extended to West Corridor expenditures.

Existing and Committed Funding: Approximately 94 percent of non-Section 5309 funds for the project will come from bonds backed by the sales and use tax revenues. These funds are considered planned. Commitment will depend upon a Board resolution to issue the debt.

New and Proposed Sources: The remaining six percent of non-Section 5309 New Starts funds are projected to come from local/private contributions. The sources of this new funding have not been specified.

Stability and Reliability of Operating Finance Plan
Rating: Medium

The *Medium* rating reflects RTD's financial capacity to operate and maintain the proposed project, as well as the existing system relying, however, on optimistic assumptions regarding future sales and use tax revenues.

Agency Operating Financial Condition: RTD is in sound operating financial condition, having experienced positive cash balances over the past five years. Fare revenues account for approximately 25 percent of operating and maintenance expenses. The historic growth in sales and use tax revenue has proved sufficient to fund the operations of a growing transit network.

Operating Cost Estimates and Contingencies: The West Corridor is projected to have an annual operating cost of $26.3 million in forecast year 2025, based on clearly identified bus and light rail service levels. Fare revenues are assumed to grow with the rate of inflation. Sales and use tax revenues are assumed to have an annual growth rate of seven percent, which is less conservative an assumption than has been used in previous years.

Existing and Committed Funding: The major source of Operating and Maintenance revenues is the sales and use tax, which is committed. The other source is farebox revenues, which will constitute nine percent of operating and maintenance funds.

New and Proposed Funding Sources: No new funding sources are proposed.

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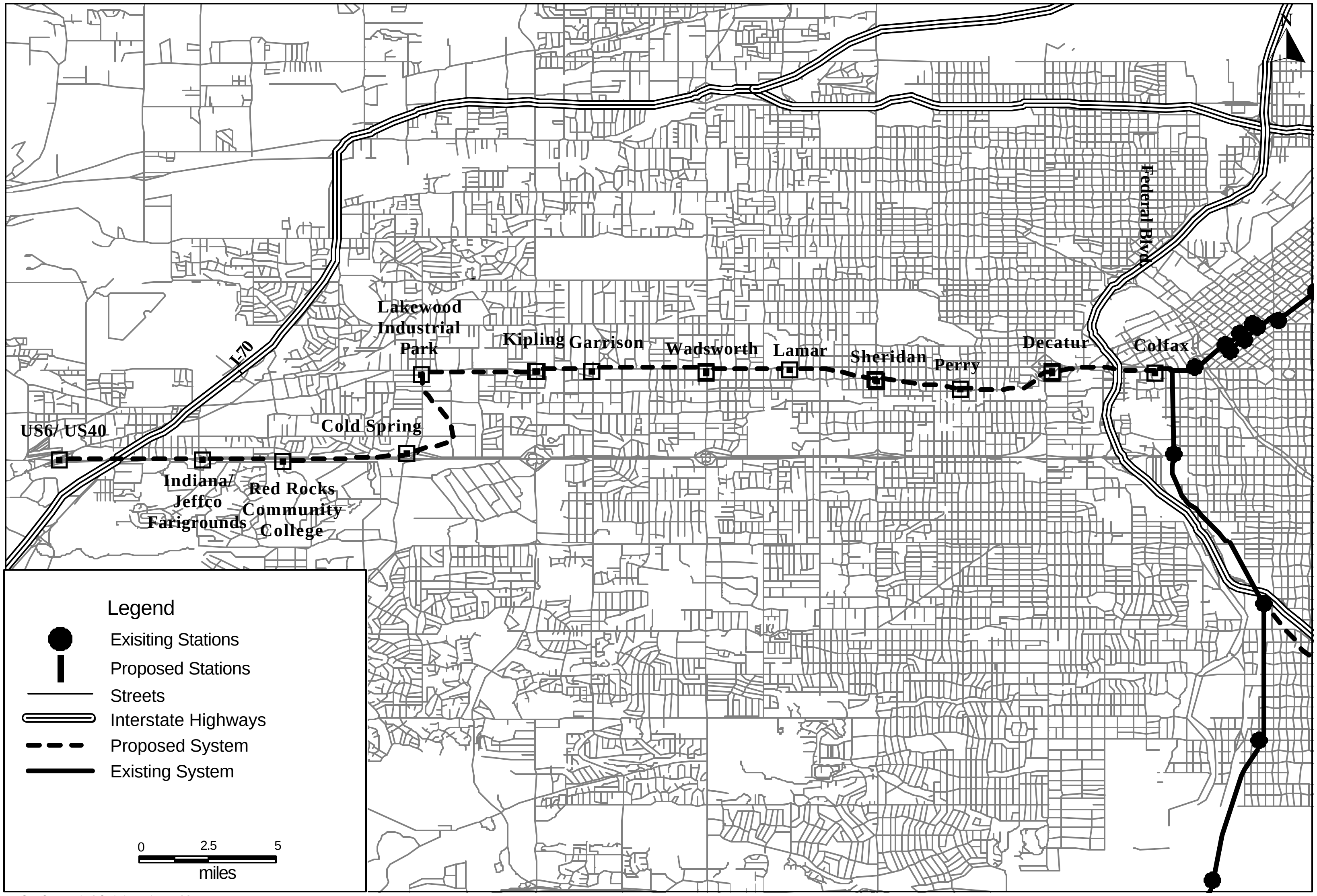

Federal Transit Administration, 2002