

Norfolk LRT
Norfolk, Virginia
 (November 2002)

Description

The Transportation District Commission of Hampton Roads (HRT) proposes an eight-mile light rail transit (LRT) system running from the Eastern Virginia Medical Center through downtown Norfolk to the Newtown Road area near the city line. This project would serve as the initial segment of a Hampton Roads regional LRT system. This segment evolved from the failure of a 1999 Virginia Beach referendum to support the advancement of a planned 18-mile LRT project extending between the cities of Norfolk and Virginia Beach. The project alignment generally follows an active Norfolk Southern railroad right-of-way, and extends westward through downtown to the Eastern Virginia Medical Center and northward on the eastern end to the Barry Robinson Center near Koger Office Park and the Sentera Leigh Memorial Hospital. The project is intended to provide transportation system support to the increased local development and an alternative river crossing in the city.

Summary Description	
Proposed Project:	Light Rail Transit 8 Miles, 11 Stations
Total Capital Cost (\$YOE):	\$222 Million
Section 5309 New Starts Share (\$YOE):	\$111 Million (50%)
Annual Operating Cost (2021 \$YOE):	\$15.4 Million
Ridership Forecast (2021):	8,900 Average Weekday Boardings 4,100 Daily New Riders
Opening Year Ridership Forecast:	N/A
FY 2004 Finance Rating:	Medium
FY 2004 Project Justification Rating:	Low-Medium
FY 2004 Overall Project Rating:	Not Recommended

The *Not Recommended* overall project rating is based on the less than adequate project justification although the project presents acceptable financial criteria at this time. The overall project rating applies to this *Annual Report on New Starts* **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, schedule, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

Status

HRT completed a Major Investment Study (MIS) to evaluate transportation improvements in the corridor extending from Virginia Beach to Downtown Norfolk in 1995. The Hampton Roads

District Planning Commission, the Metropolitan Planning Organization, approved the selection of an 18.3-mile LRT segment from Virginia Beach to Downtown Norfolk in January 1997. FTA approved the project to enter Preliminary Engineering (PE) in April 1997 and a Draft Environmental Impact Statement (DEIS) was completed in April 1999. Although the City of Virginia Beach rejected a referendum of support for the proposed bi-city project in November 1999, HRT completed a Final EIS in March 2000. Subsequently, the HRT Board and the City of Norfolk requested HRT to identify a LRT segment based on the original alignment that would effectively and efficiently support the City's plans for the future. HRT has undertaken a Supplemental EIS examining several alignment options for a LRT system that lies entirely within the jurisdictional boundaries of the City of Norfolk. FTA approved the refined project to initiate Preliminary Engineering in October 2002. HRT has anticipated LRT start-up in early 2007.

TEA-21 Section 3030(a)(58) authorizes the Norfolk-Virginia Beach Corridor for Final Design and Construction. Through FY 2002, Congress has appropriated \$10.91 million in Section 5309 New Starts funds to this project.

Evaluation

The following criteria have been estimated in conformance with FTA's *Reporting Instructions for the 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.

Project Justification Qualitative Criteria		
Mobility Improvements Rating: Low-Medium		
	<u>New Start vs. Baseline</u>	
Average Employment Per Station	6,552	
Average Low Income Households Per Station	170	
Transportation System User Benefit Per Project Passenger Mile (Minutes)	1.9	
Environmental Benefits Rating: Medium		
<u>Criteria Pollutant Reduced (tons)</u>	<u>New Start vs. Baseline</u>	
Carbon Monoxide (CO)	60	
Nitrogen Oxide (NO _x)	10	
Hydrocarbons	6	
Particulate Matter (PM ₁₀)	N/A	
Carbon Dioxide (CO ₂)	3, 193,717	
<u>Annual Energy Savings (million)</u> BTU	98,876	
Cost Effectiveness Rating: Low		
	<u>New Start vs. Baseline</u>	
Cost per Transportation System User Benefit (current year dollars/hour)	\$ 46.92	
Operating Efficiencies Rating: Medium		
	<u>Baseline</u>	<u>New Start</u>
System Operating Cost Per Passenger Mile (current year dollars)	\$0.89	\$0.83

[] indicate an increase in emissions.

Project Justification Rating: Low-Medium

The *Low-Medium* project justification rating reflects the adequacy of transit supportive land use and the weak cost-effectiveness of the Norfolk LRT project. With the continued improvement in FTA's project evaluation process, including the introduction of the transportation system user benefit measure, the value of proposed transit projects can be more accurately assessed.

Accordingly, FTA intends to put additional emphasis on the cost-effectiveness measure. This year, this project has received a "low" rating for cost-effectiveness, which raises concerns about the merits of the project for Federal funding. FTA strongly encourages the sponsor to improve the cost-effectiveness of the project.

Based on 1990 Census data, there are an estimated 1,870 low income households and 72,077 jobs within a ½-mile radius of Norfolk LRT station areas. EPA has designated the Hampton Roads area as an “attainment area” for transportation related pollutants. The project’s incremental cost per new rider is \$22.82.

Existing Land Use, Transit-Supportive Land Use Policies and Future Patterns **Rating: Medium**

The *Medium* land use rating reflects the aggressive redevelopment efforts of the City to create a mixed-use, pedestrian-scaled environment despite relatively low CBD and corridor population and employment densities.

Existing Conditions: Total employment and population in station areas are relatively low; CBD employment is 36,000 and population density averages 4,300 persons per square mile. Most stations will serve neighborhoods comprised of both multi-family and single-family pedestrian-accessible housing within a ½-mile radius at typical densities of 10 to 12 units per acre. The Norfolk CBD is small but relatively dense and pedestrian accessible. Streetscape initiatives have recently been undertaken in conjunction with redevelopment projects in transit station areas. Parking supply is somewhat limited in the core area, but not for the CBD as a whole. Other high trip generators include the Eastern Virginia Medical Center, Norfolk State University (6,600 students), MacArthur Center shopping mall, the Harbor Park minor league baseball stadium, and Tidewater Community College (1,500 students). Commercial development at the easternmost stations on the alignment is auto-oriented in nature.

Future Plans, Policies, and Performance: The City of Norfolk has undertaken some significant activities that are supportive of transit-oriented development and urban redevelopment. Norfolk has recently revised zoning in station areas and other areas of downtown to facilitate higher-intensity commercial, residential, and/or mixed-use development. A number of multi-family, urban residential developments are proposed adjacent to the CBD in the waterfront area. The MacArthur Center shopping mall is an example of a recent downtown redevelopment project that has been successfully integrated with the pedestrian streetscape. Two major neighborhood revitalization projects are underway in station areas east of the CBD. On a regional scale, relatively restrictive land conservation and growth limitation policies are in effect in a number of jurisdictions, and these policies have been noted as a barrier to suburban growth in some areas.

Local Financial Commitment

Rating: Medium

The *Medium* local financial commitment rating is based on the *Medium* ratings for both the capital and operating financial plans.

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

Rating: Medium

The HRT financial plan for the Norfolk LRT comprises Section 5309 New Starts funds, and State and local funds.

Locally Proposed Financial Plan		
<u>Proposed Source of Funds</u>	<u>Total Funding (\$million)</u>	<u>Percent of Total</u>
Federal: Section 5309 New Starts	\$ 111.0	50.0 %
State: Commonwealth Transportation Trust Fund	\$ 55.5	25.0 %
Local: City of Norfolk	\$ 55.5	25.0 %
Total:	\$ 222.0	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 is based on the commitment of non-Section 5309 New Starts funds for the Norfolk LRT project and HRT's capital finance condition. The HRT capital plan reflects that all project funding is planned from existing revenue sources of the State and the City. The City has committed to provide local assistance through debt financing, for which it has adequate capacity. Balanced capital cash flows are projected.

Agency Capital Financial Condition: The City of Norfolk has high bond ratings (AAA from Fitch and Aaa from Standard and Poor's) for the bond series maturing after July 2011. Bonds maturing before July 2011 have received AA and A1 ratings from Fitch and S&P, respectively. The City's debt capacity is estimated at over \$300 million. The average age of the HRT bus fleet is nine years.

Capital Cost Estimate and Contingencies: The capital cost estimate includes an average contingency of 21.6 percent, and an annual inflation rate assumed at three percent. The City of Norfolk is prepared to issue additional bonds in the event of funding shortfalls/cost increases.

Existing and Committed Funding: The financial plan proposes that the Commonwealth of Virginia will provide 50 percent of the non-Section 5309 New Starts funding through Virginia DOT's Transportation Trust Fund, an existing source. The General Assembly is expected to consider this budget recommendation during the 2003 Legislative Session, which convenes in January. The financial plan proposes that the City of Norfolk will provide the remaining share of the non-Section 5309 New Starts funding through debt financing. The City will incorporate this

funding into the five year Capital Improvement Program budget upon approval of State funding. Hence, both State and local funding sources are considered as planned at this time.

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

Stability and Reliability of Operating Finance Plan

Rating: Medium

The *Medium* rating is based on the commitment of HRT serviced cities to fund agency operations according to a cost allocation agreement. Hence, Norfolk LRT operating assistance will be provided by the City of Norfolk, which is expected to result in an incremental increase in the City's total HRT subsidy.

Agency Operating Financial Condition: HRT has a history of balanced budgets and will not operate at a deficit. Historically, HRT has attained the necessary funding from federal, state and local sources. HRT serviced cities assume responsibility for funding agency operations. HRT's current operating ratio is 1.54. While the local, state, and federal funding assumptions are reasonable, the assumed annual increases in farebox revenues – exceeding a 50 percent recovery ratio by FY 2022 – is optimistic, however, in light of recent trends and the current 30 percent farebox recovery ratio.

Operating Cost Estimates and Contingencies: Norfolk LRT operating costs are projected at 12 percent of the systemwide operating costs. Operating costs are projected to increase by 14.5 percent in FY 2008 and by 4.9 percent in FY 2009, which correspond to the opening year and the first year of full operation, respectively. Annual operating costs are projected to increase at an average of three percent in remaining years. The City of Norfolk is obligated to pay for any operating deficit attributed to the start-up of LRT operation. Contingencies for addressing revenue shortfalls and/or cost increases include reducing service levels.

Existing and Committed Funding: All operating sources are committed and come from existing sources, and include Federal, state and local assistance. State and local funds are derived from annual allocations and formula programs, which are expected to increase for the project. The projected growth in the federal, state and local funding is reasonable. The assumed growth in farebox revenues is optimistic in light of the recent trends in fare revenues.

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

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