

Durham-Orange Light Rail Transit Project

Durham, NC

New Starts Engineering
(Rating Assigned July 2017)

Summary Description

Proposed Project:	Light Rail 17.8 Miles, 18 Stations
Total Capital Cost (\$YOE):	\$2,476.30 Million (Includes \$87.7 million in finance charges)
Section 5309 New Starts Share (\$YOE):	\$1,238.15 Million (50.0%)
Annual Operating Cost (opening year 2028):	\$28.73 Million
Current Year Ridership Forecast (2016):	14,400 Daily Linked Trips 4,047,100 Annual Linked Trips
Horizon Year Ridership Forecast (2035):	24,600 Daily Linked Trips 6,790,500 Annual Linked Trips
Overall Project Rating:	Medium
Project Justification Rating:	Medium
Local Financial Commitment Rating:	Medium

Project Description:

GoTriangle proposes to implement a 17.8-mile Light Rail Transit (LRT) line in the corridor that extends from the University of North Carolina Hospital in the Town of Chapel Hill to North Carolina Central University in the City of Durham. The proposed project includes 18 stations, approximately 4,400 parking spaces, a maintenance facility and the purchase of 18 LRT vehicles. Service will be provided on the proposed project from 5:30 a.m. to 12:00 a.m. on weekdays, and from 6:30 a.m. to 12:00 a.m. on weekends. In the opening and horizon years, service will operate every ten to 20 minutes during the weekday, every 20 minutes in the evening during the week, and every 20 to 30 minutes on weekends. End-to-end travel time is estimated to be approximately 44 to 46 minutes.

Project Purpose:

The purpose of this project is to provide a high-capacity transit service that improves mobility, increases connectivity through expanding transit options, and supports future development plans in the corridor that extends from Chapel Hill to Durham. Both ends of the corridor have central business districts, large medical facilities, and universities that serve as major employment centers for the region. Major trip generators in the corridor include: University of North Carolina; North Carolina Central University; Duke University; Durham Veterans Affairs Medical Center; Durham Amtrak Station; Durham Performing Arts Center; Durham Station; and downtown Durham. Bus service in the corridor today is slow due to traffic congestion. GoTriangle believes that the project will provide an alternative to congested roadways.

Project Development History, Status and Next Steps:

GoTriangle selected a locally preferred alternative (LPA) in February 2012, which was published in the final Alternatives Analysis report in April 2012. The LPA was adopted into the region's fiscally constrained long-range transportation plan in May 2013. The project entered New Starts Project Development in February 2014.

NEPA was completed with issuance of a Record of Decision (ROD) in February 2016. In October 2016, GoTriangle decided to examine extending the line 0.7-miles south of a reconfigured Alston Avenue Station and adding a station at North Carolina Central University. Additional environmental review was conducted. A revised LPA that included the extension and new station was selected in December 2016. At that time, it was also adopted into the region's fiscally constrained long-range transportation plan and the Statewide Transportation Improvement Program (STIP). FTA issued a Finding of No Significant Impact (FONSI) and an amended ROD on December 14, 2016. GoTriangle's schedule anticipates receipt of a Full Funding Grant Agreement in January 2020, and to begin revenue service in 2028.

Locally Proposed Financial Plan		
<u>Source of Funds</u>	<u>Total Funds (\$million)</u>	<u>Percent of Total</u>
Federal:		
Section 5309 New Starts	\$1,238.15	50.0%
State:		
State of North Carolina Strategic Transportation Investments Grant	\$247.63	10.0%
Local:		
Dedicated Local Revenues (Durham and Orange Counties sales tax, vehicle rental tax, and vehicle registration fees)	\$260.93	10.5%
Limited Obligation Bonds (Repaid by Dedicated Local Revenues)	\$227.00	9.2%
TIFIA (Repaid by Dedicated Local Revenues)	\$400.00	16.2%
Local Government Grants for Eligible Joint Development Activities (Town of Chapel Hill, Orange County, City of Durham and/or Durham County)	\$19.53	0.8%
Private Sector/Other:		
In-Kind Right-of-Way Donations	\$19.38	0.8%
Joint Development	\$45.57	1.8%
Private Philanthropic Campaign	\$18.12	0.7%
Total:	\$2,476.30	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.

**NC, Durham and Orange Counties, Durham-Orange Light Rail Transit Project
(May 2017)**

Factor	Rating	Comments
Local Financial Commitment Rating	Medium	
Non-Section 5309 New Starts Share	NA	The New Starts share of the project is 50.0 percent.
Project Financial Plan	Medium	
Current Capital and Operating Condition (25% of local financial commitment rating)	Medium-High	<ul style="list-style-type: none"> • The average age of the bus fleet is 5.9 years, which is younger than the industry average. • GoTriangle has not issued bonds in the last two years. • GoTriangle’s current ratio of assets to liabilities as reported in its most recent audited financial statement is 17.4 (FY2016). • There have been no service cutbacks or cash flow shortfalls in recent years.
Commitment of Capital and Operating Funds (25% of local financial commitment rating)	Medium	<ul style="list-style-type: none"> • Approximately 39.4 percent of the non-Section 5309 New Starts funds are committed or budgeted, and the rest are considered planned. Sources of funds include a Transportation Infrastructure Finance and Innovation Act (TIFIA) loan from the United States Department of Transportation repaid by sales tax revenues, vehicle rental tax revenues, and vehicle registration fee revenues (dedicated local revenues); a Strategic Transportation Investment grant from the North Carolina Department of Transportation (NCDOT); limited obligation bonds repaid by dedicated local revenues; dedicated local revenues; local grants for joint development; right of way donations; private philanthropic donations; and joint development private contributions. • Approximately 99.9 percent of the funds needed to operate and maintain the transit system in the first full year of operation are committed or budgeted, and the rest are considered planned. Sources of funds include NCDOT State Maintenance Assistance Program grants, NCDOT advanced technology funding, sales tax revenues, vehicle rental tax revenues, vehicle registration fee revenues, reimbursements for oversight of other transit systems and programs in the region, and fare revenues.
Reasonableness of Capital and Operating Cost Estimates and Planning Assumptions/Capital Funding Capacity	Medium-Low	<ul style="list-style-type: none"> • Growth in capital revenue assumptions are reasonable for sales tax revenues and optimistic for vehicle registration fee revenues and vehicle rental fee revenues compared to recent historical experience.

<p>(50% of local financial commitment rating)</p>		<ul style="list-style-type: none">• The capital cost estimate is reasonable.• Regarding growth in operating revenue assumptions, sales tax revenues are reasonable, and vehicle registration and rental fee revenues are optimistic compared to recent historical experience. FTA cannot determine the reasonableness of the fare revenue projections because the methodology used by GoTriangle is not in compliance with FTA's <i>Guidance for Transit Financial Plans</i>.• Growth in operating costs are optimistic compared to recent historical experience.• GoTriangle has access to funds via additional debt capacity, cash reserves, or other committed funds to cover cost increases or funding shortfalls equal to at least 2.3 percent of estimated project cost and 50 percent of average annual system-wide operating expenses.
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LAND USE RATING: Medium

The land use rating reflects population density within one half mile of proposed station areas, employment served by the line, and the share of legally binding affordability restricted (LBAR) housing in the station areas compared to the share in the surrounding counties.

- Average population density in all station areas is 3,793 persons, which corresponds to a Medium-Low rating according to FTA criteria. Total employment within project station areas is 79,200, which corresponds to a Medium rating. Daily parking rates at the University of North Carolina (UNC) at Chapel Hill, the largest traffic generator in the corridor, average \$13, corresponding to a Medium-High rating. The proportion of legally binding affordability restricted housing in the corridor compared to the surrounding counties is 2.68, which corresponds to a High rating.
- The corridor includes the campus environment of UNC-Chapel Hill and its associated hospitals at the western end, the campus environment of Duke University, the edge of the more urban environment of the Durham central business district (CBD), and a residential area near the campus of North Carolina Central University (NCCU) at the eastern end. Station areas between these large employment destinations are primarily suburban.
- Duke and UNC-Chapel Hill both have attractive pedestrian environments and the urban station areas in Durham have largely continuous streets and sidewalks, although highways create some gaps in the local street network. The suburban stations generally are more auto-oriented.

ECONOMIC DEVELOPMENT RATING: Medium-High

Transit-Supportive Plans and Policies: Medium-High

- *Growth Management:* Regional level organizations do not have an active role in growth management outside of working with local governments to coordinate economic development, land use, and transportation planning. However, Durham and Chapel Hill have adopted aggressive growth management and land protection strategies, including urban services boundaries that have been in place for many years. Growth management policies to increase development in priority areas is just beginning to occur as part of planning for the light rail corridor.
- *Transit-Supportive Corridor Policies:* GoTriangle has conducted TOD assessments for all proposed station areas. The City of Durham has drafted or adopted Compact Neighborhood Plans for all of its station areas and has updated its Future Land Use Map to better align it with the project. Chapel Hill has identified focus areas for new development in station areas as part of its Comprehensive Plan.
- *Supportive Zoning Regulations Near Transit Stations:* In Durham, new TOD zoning districts are being developed according to the densities and character envisioned in the Compact Neighborhood Plans. Chapel Hill has developed a TOD district that would provide transit-supportive development density within one-half mile of future transit stations.
- *Tools to Implement Land Use Policies:* Chapel Hill offers incentives for transit-supportive development including density bonuses for mixed-use development and public financing for infrastructure improvements to support such development. Durham provides public financing for infrastructure improvements and offers density bonuses in Compact Neighborhood Districts if a mix of uses is vertically integrated.

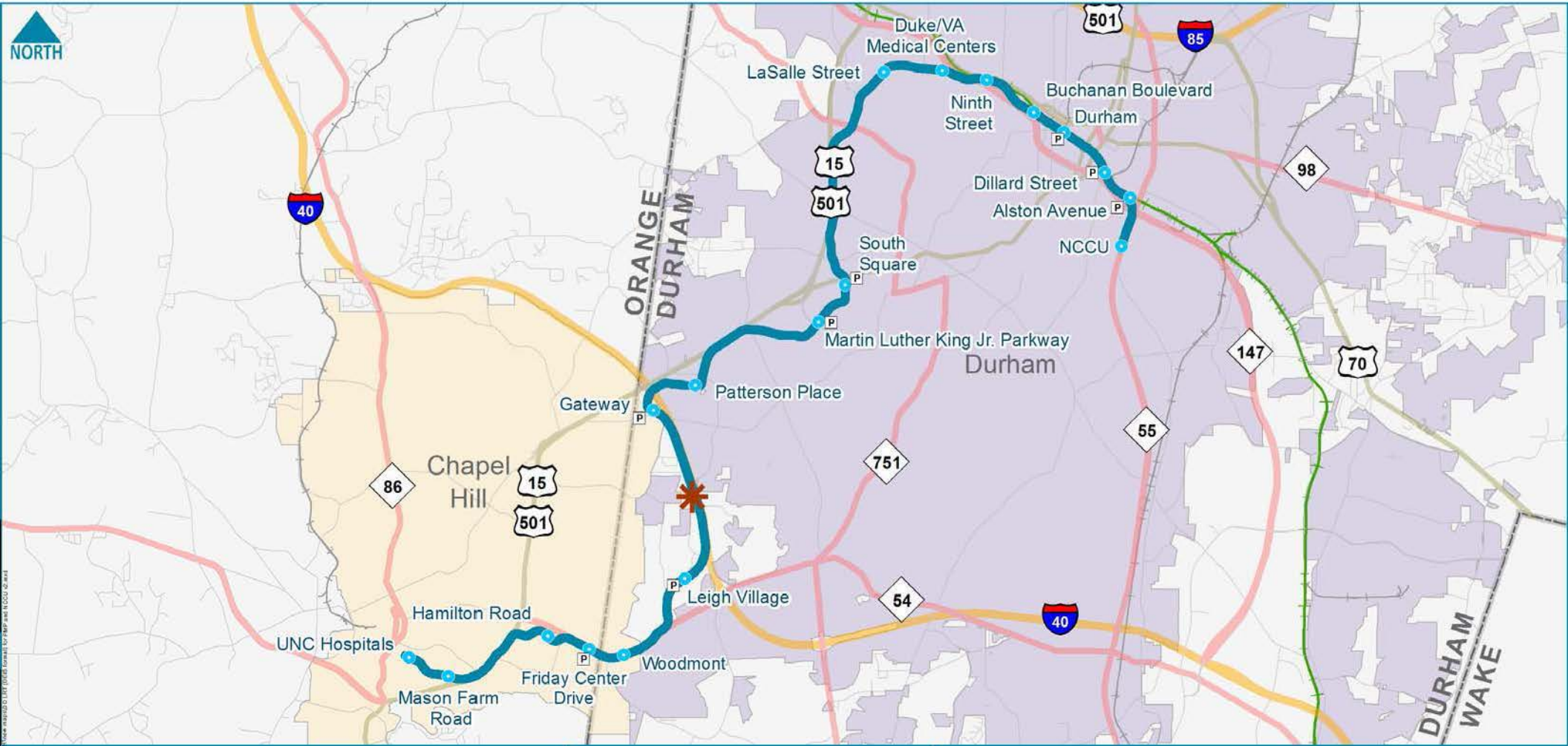
Performance and Impacts of Policies: Medium-High

- *Performance of Land Use Policies:* In Durham, 34 development projects have been completed since 2003 or are under construction in station areas. Approved projects have a development character that largely supports pedestrian activity. There are fewer major developments in Chapel Hill but some TOD developments with mixed-use and high density characteristics have been developed in recent years.
- *Potential Impact of Transit Investment on Regional Land Use:* The metropolitan area is forecast to grow significantly through 2035. The large educational, medical and research institutions which serve

as the region's economic base are located along the corridor. The corridor's population is expected to grow faster than the regional average given the higher-density rezoning that is underway.

Tools to Maintain or Increase Share of Affordable Housing: Medium

- GoTriangle and its partners have surveyed existing affordable housing units and land available for affordable housing development. Chapel Hill has an Affordable Housing Plan that prioritizes affordable housing goals, which the City will use to consider ordinances and strategies. Chapel Hill also enacted an Inclusionary Zoning Ordinance and established an Affordable Housing Reserve to support rental projects for low-income housing. Durham recently set a goal of 15 percent affordable housing within a half mile radius of transit stations on the LRT corridor, and is beginning to define strategies including regulatory and financing tools for affordable housing production and preservation.



**DURHAM-ORANGE
LIGHT RAIL TRANSIT PROJECT**
Durham and Orange Counties, North Carolina



Sources: ESRI, CGIA, NCDOT, and AECOM



- D-O LRT Stations
- P Park-and-Ride Lot
- ✱ Rail Operations and Maintenance Facility
- D-O LRT Alignment
- Railroad
- NCR Corridor
- Chapel Hill
- Durham
- County Boundary