

Figure 7.2.2 – Major Roadway Projects by Time Period (full listing in Appendix 1)

Durham Chapel Hill-Carrboro MPO		
2009-15	2016-25	2026-35
NC 147 extended and NC 540 completed as a toll road from Durham to Holly Spring	East End Connector completed linking US 70 to NC 147 (Durham Freeway)	HOV/HOT lanes added to I-40 from Wade Avenue (Wake County) to US 15-501 (Durham County)
	I-85 widening (I-40 to Durham County line)	I-40 widening (US 15-501 to I-85)
	I-85 widening (US 70 to Red Mill Road)	NC 147 widening (I-40 to East End Connector)
	US 70 freeway conversion (Lynn Road to Wake Co.)	Roxboro Road widening (Duke St. to Goodwin Rd.)
	Northern Durham Parkway	
Capital Area MPO		
2009-15	2016-25	2026-35
I-40 widened from Wade Ave. to Lake Wheeler Road	I-40 widened from I-440 to NC 42 in Johnston County	NC 50 widened from I-540 to NC 98
US 401 widened from I-540 to Louisburg with a Rolesville bypass	US 401 widened south of Fuquay-Varina including eastern and western bypasses	I-540 (Northern Wake Expressway) widened from I-40 to US 64 bypass and converted to toll road
NC 147 extended and NC 540 completed as a toll road from Durham to Holly Springs	NC 540 completed as a toll Holly Springs to US 64 bypass	NC 42 (Johnston & Wake Co.)
	I-440 widened from Wade Avenue to Crossroads	US 401 widened from Garner to Fuquay-Varina
	NC 54 widened through Cary and Morrisville	HOV/HOT lanes added to I-40 from Wade Avenue (Wake County) to US 15-501 (Durham County)
	US 64/264 widened from the US 64 bypass to Zebulon (?)	

7.3 Fixed Guideway and Premium Transit Services

The transit plans for the Triangle region are heavily informed by the recommendations of the Special Transit Advisory Commission, (STAC) a group of 29 citizens convened by the two MPOs to develop a Regional Transit Vision Plan. The STAC completed its work in May 2008 with a report that recommended a complete transit system with three critical elements, Bus, Rail, and Circulators:

- **BUS:** A significant expansion of bus service throughout the Triangle, adding new routes to communities presently without service, and improvements to headways at existing transit agencies
- **RAIL:** 56 miles of light rail transit connecting Chapel Hill, Durham, Research Triangle Park, Morrisville, Cary, Raleigh and North Raleigh
- **CIRCULATORS:** High-frequency (every 10 minutes) short-distance services linking major activity centers to regional and intercity rail services

The STAC emphasized a rapidly expanded bus network in the first years of any transit plan in order to demonstrate quick results to citizens and to link all the municipalities in the Triangle with transit within the first years of expansion.

STAC members also noted that rail service will provide the opportunity to shape the growth that the Triangle will receive in the future. Charlotte has experienced over \$1.9 billion in private sector development along the South Light Rail corridor while carrying several thousand riders more than projected, providing significant mobility benefits in one of the region’s most congested corridors. Light rail can provide the similar opportunities in the Triangle.

The STAC developed the circulator concept to form the vital links binding together local and regional transit, major activity centers such as universities, downtowns, hospitals, and the Research Triangle Park and RDU airport. Circulator services will arrive so frequently that schedules will not be needed.

This section and the following section describe the bus and rail components of the LRTPs. There are many similarities to the STAC recommendations, and some differences based on recent information. Additional information on the STAC process and the final report and recommendations are available at the following Web site -- www.transitblueprint.org.

The major components of the fixed-guideway investment are presented in Figure 7.3.1, and Figure 7.3.2 is a map of all the fixed-guideway and bus transit services.

Fixed-Guideway and Premium Transit Services

New light rail transit and commuter rail transit investments are included in the 2035 Capital Area MPO and Durham-Chapel Hill-Carrboro MPO Long Range Transportation Plans. Details on rail technology and services are contained in Appendix 2.

Light rail transit is a departure from past long range plans that focused on passenger rail that had service using Diesel Mobile Units (DMU) technology, which could not be operated outside existing rail corridors because of safety issues.

Light rail transit provides the opportunity for the passenger rail service to depart from rail corridors and operate closer to transit oriented development along roadways. With electric propulsion, light rail can save energy costs and operate without dependence on foreign oil.

Commuter rail service tends to operate at relatively higher speeds in mainline rail corridors, serves stations that are further apart than light rail transit, and only provides service during the peak and noon hours. Thus, commuter rail service allows service to be targeted to transit markets that don’t warrant service during the off-peak hours.

The major components of the fixed-guideway investment are presented in Figure 7.3.1. The exact alignment (route) and timing of fixed guideway investments will be decided with more detailed studies. But for transportation modeling and financial planning purposes, the 2035 LRTP assumes light rail service and commuter rail service will be implemented in the phases summarized in Figure 7.3.1, and that the light rail service between Durham , Raleigh and North Raleigh will operate within the existing railroad rights-of-way. Actual implementation phasing and routing might be modified based on the more detailed studies that will be required to secure financing and design the system. Routing light rail transit service outside of the railroad rights-of-way that have been studied previously could result in a longer time needed to design and build the system.

Figure 7.3.1 – Fixed-Guideway Projects by LRTP Period (technical information in Appendix 2)

Rail Segment	Type of Service	LRTP Period
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