

## 7.9 Transportation System Management (TSM)

Transportation System Management (TSM) solutions increase efficiency and safety by allowing the current transportation network to operate with fewer travel delays and increased capacity. These projects are often relatively inexpensive compared to building and widening roadways and operating public transportation, and often provide cost effective solutions that can be implemented relatively quick and with relatively fewer environmental impacts. Many of the projects can be implemented in small phases – they can be built as public funding becomes available, or as development occurs and partnerships with private developers are created.

The following list provides examples of the types of TSM projects that are expected to be implemented through the 2035 LRTP period. This list is not expected to be exhaustive because the solutions will continue to evolve with the specific challenges of our transportation system.

- Widening of approach widths for key intersections;
- Installation and/or adjustment of traffic signals, including dynamic signal timing coordination;
- Provision of left and/or right turn lanes;
- Limitation or prohibition of driveways, turning movements, trucks, and on-street parking;
- Installation of traffic calming devices for residential neighborhoods; and,
- Planning for traffic circles and roundabouts at appropriate intersections.

**TSM projects in the Capital Area MPO.** The Capital Area MPO includes funding for TSM in the overall roadway category. Appendix 1 of this report includes the list of highway projects included in this plan. In the CAMPO part of the list, several projects are listed which do not increase the number of travel lanes on a road, but instead make safety, intersection, or other TSM improvements.

**TSM priorities in the DCHC MPO.** The estimated costs for TSM projects from 2009 through 2035 are \$111 million in the DCHC MPO. Many roadways and intersections in northeast Chatham County and southwest Durham County need capacity and safety improvements to address the expected traffic volume increases. Roadway widenings for this area were not specifically included in the Highway project list of the 2035 LRTP because of highway funding constraints and concerns about the environmental impacts that widenings might have on the surrounding wetlands. As a result, Figure 7.9.1 – TSM Projects in NE Chatham/SE Durham, specifically identifies possible TSM projects for the roadways and intersections in northeast Chatham County and southwest Durham County. These TSM projects have been drawn from the draft “Farrington Road Corridor Study.”

*Figure 7.9.1 – TSM Projects in NE Chatham/SE Durham*

Road/Intersection	Short Term TSM	Long Term TSM
US 15/501 and Jack Bennett Road	Lengthen the existing westbound left-turn lane on Jack Bennett Road to provide 250 feet of full-width storage.	None
Old Farrington Point Road and Lystra Road	Construct an additional eastbound left-turn lane on Lystra Road with 425 feet of full-width storage.	Construct an exclusive southbound right-turn lane on Old Farrington Point Road with 300 feet of full-width storage, <u>or</u> Convert traffic signal to a roundabout

Road/Intersection	Short Term TSM	Long Term TSM
Farrington Point Road/Old Farrington Point Road and Mt. Carmel Church Road	None	<p>Construct an exclusive westbound right-turn turn lane on Farrington Point Road with 100 feet of full-width storage, <u>and</u>,</p> <p>Construct an exclusive northbound right-turn lane on Old Farrington Point Road with 225 feet of full-width storage, <u>and</u>,</p> <p>Construct an exclusive southbound left-turn turn lane on Mt. Carmel Church Road with 125 feet of full-width storage, <u>or</u>,</p> <hr/> <p>Install a roundabout or traffic signal when warranted.</p>
Farrington Mill Road and Barbee-Chapel Road	None	<p>Construct an exclusive eastbound right-turn turn lane on Barbee-Chapel Road with 125 feet of full-width storage, <u>and</u>,</p> <p>Construct an exclusive westbound left-turn lane on Farrington Point Road with 700 feet of full-width storage, <u>and</u>,</p> <p>Construct an exclusive northbound left-turn lane on Farrington Point Road to provide 225 feet of full-width storage, <u>or</u>,</p> <hr/> <p>Install a roundabout or traffic signal when warranted.</p>
Farrington Road and Stagecoach Road	Construct an exclusive northbound right-turn turn lane on Farrington Road with 200 feet of full-width storage.	<p>Construct an exclusive southbound left-turn lane on Farrington Road with 100 feet of full-width storage, <u>and</u>,</p> <p>Construct an exclusive westbound left-turn lane on Stagecoach Road with 100 feet of full-width storage, <u>or</u>,</p> <hr/> <p>Install a roundabout or traffic signal when warranted.</p>
NC 751 Hope Valley Road and Stagecoach Road	Construct an additional eastbound left-turn lane on Stagecoach Road with 250 feet of full-width storage.	<p>Construct an additional northbound and southbound through lane on Hope Valley Road, <u>and</u>,</p> <p>Construct an exclusive northbound left-turn lane on Hope Valley Road with 400 feet of full-width storage, <u>and</u>,</p> <p>Construct an exclusive southbound right-turn lane on Hope Valley Road with 200 feet of full-width storage.</p>
NC 751 (US 64 to O’Kelly Chapel Rd.)	None	Install curb and gutter and other safety improvements