

Section 6

Congestion Management Plan

As a Transportation Management Area (TMA), the High Point Urban Area Metropolitan Planning Organization is required to have a congestion management system (CMS). “A CMS is a systematic process for defining what levels of congestion are acceptable to the community; developing performance measures for congestion; identifying alternative solutions to manage congestion; prioritizing funding for those strategies and assessing the effectiveness of those actions.”

Goals

The congestion management system supports the following goals of High Point’s Long Range Transportation Plan: safety, mobility, modal interconnectivity, efficient management and operations system preservation and economic vitality.

Safety

The objectives of the congestion management system related to safety are:

- Collecting and maintaining a database of high accident locations within the High Point MPO.
- Develop action plans to improve or mitigate high accident locations within the High Point MPO.

Mobility

The objectives of the congestion management system related to mobility are:

- Improve the mobility of passengers by efficiently operating the transportation network,
- Improve the reliability of passenger and freight movement by efficiently operating the transportation network

Modal Interconnectivity

The objectives of the congestion management system related to modal connectivity are:

- Improve the ability of passengers to change modes
- Improve the ability of freight to change modes

System Preservation

The objectives of the congestion management system related to system preservation are:

- Minimize or defer the need for additional transportation capacity by effectively managing the existing transportation system.

Economic Vitality

Congestion is the sign of a vibrant dynamic economy; it is also a brake on further development in the region. Yogi Berra said, “No one goes there nowadays it’s too crowded.” The objectives of the congestion management system related to economic vitality are:

- To support the continued viability of the International Home Furnishings Market by improving access to High Point’s showroom district during market times,
- To support the continued viability of the International Home Furnishings Market by effectively managing and improving freight staging into High Point’s market district before and during semi-annual furniture markets,
- To support the

Identified Corridors

Congestion may be recurring, non-recurring, or event related. Congestion can be identified by measuring the additional travel time needed along certain facilities at critical times, by measuring the day to day variability of travel time along corridors by the number of accidents that occur at high accident locations, or by the impact of significant additional demand placed upon the local transportation by special events. Based on a combination of these factors the High Point MPO has identified the following corridors, or areas as subject to congestion and in need of congestion management action:

<i>Corridor/Location</i>	<i>Description</i>
The Market District	<p>High Point is the home of the semiannual international home furnishings market. High Point has been a hell of the furniture manufacturing industry since the late 19th century. The international home furnishings market is one of the largest furniture trade shows in the world. Furniture samples, designers, manufactures, and buyers from all over the world converge on High Point in spring and fall. The market district includes over 12,000,000 ft.² of furniture showroom space. Twice a year this space must be filled with samples and over 80,000 furniture industry professionals (vendors, buyers, and designers) must be moved efficiently and effectively between hotels and showrooms during the ‘Market’.</p> <p><i>See International Home Furnishings Market Related Activities below.</i></p>
Bellevue and Westover Drive	<p>Bellevue and Westover Drive our residential streets serving circumferential traffic in the northwest quadrant of High Point. These two streets connect traffic using the intermediate loop (Hartley Drive) to access eastern</p>

<i>Corridor/Location</i>	<i>Description</i>
Greensboro-High Point Road	<p>Davidson County. Presently Hartley Drive is incomplete west of Main Street however a city bond project schedule for construction within the next two years will allow more direct access from Hartley Drive to Wallburg High Point Road in Davidson County and should transfer some traffic from the Bellevue Westover Drive corridor to Hartley Drive West.</p> <p>Greensboro road is a three-lane radial facility connecting High Point with Jamestown in Greensboro. The roadway is characterized by low speed limits (35mph), substandard geometry, and numerous access points. Residential and commercial development (including properties identified as potentially eligible for the National Register of Historic Places) adjacent to the roadway limits the potential for widening this facility. Traffic volumes have all grown slowly but steadily over the years. Existing levels of congestion are acceptable. However, these levels of congestion limit the ability Jamestown to develop into a pedestrian friendly community. The presence of a large public school complex (one elementary school, one middle school, and one high school), a community college campus and a YMCA near the intersection of Greensboro road and Guilford College Road create serious problems with traffic peaking in both the morning in the afternoon.</p> <p>The NCDOT has recently completed an Environmental Impact Statement (EIS) and a Record of Decision (ROD) for road improvements in the corridor. These improvements consist of a four-lane boulevard facility with limited access part of which will be on a new alignment between existing Greensboro-High Point Road and US29-70/I-85 Business.</p>
Greenwood Drive and West Peachtree Drive	<p>Traffic uses these two residential streets to avoid congestion on North Main Street between Hartley Drive and Westchester Drive. Both streets are narrow two lane cross sections with poor vertical alignment and narrow shoulders. Nominally these two streets are good candidates for either safety improvements or traffic calming projects intended to discourage traffic from outside the neighborhoods from using them.</p>
Interstate 40	<p>Interstate 40 is a critical east-west connector serving local, statewide, and national traffic. Strictly speaking I-40 does not pass through the High Point MPO. However a 4 ¼ mile</p>

<i>Corridor/Location</i>	<i>Description</i>
I-85 Business at Davidson County Community College	<p>stretch of I-40 from near the NC 68 interchange to the Guilford/Forsyth County line serves as the MPO's northern boundary.</p> <p>Davidson County Community College is located at the intersection of I-85 Business and Old Greensboro Road. Davidson County Community College serves approximately 16,000 daytime and evening students. Given that Davidson County is actively retooling its work force the community college will be a major traffic generator for the foreseeable future. I-85 Business is a four-lane divided expressway with both at grade intersections and interchanges. Currently the community college is served by an at grade intersection. There is also significant development pressure on nearby vacant parcels of land. As these parcels develop and the student body grows the at-grade intersection will fail and become a choke point on I-85 Business.</p>
NC 68 (Eastchester Drive)	<p>The NC 68 corridor is a critical corridor connecting High Point to Interstate 40 and the Piedmont triad international airport, and is developing Federal Express hub. NC 68 is a radial facility whose cross-section varies between a five lane curb and gutter section and a four-lane median divided section. Growth along the corridor as generally been steady and shows no signs of abating. While traffic generally moves at or near the speed limit along the corridor there are key choke points with limited throughput that impose limitations on the corridor in the short and medium term. Two key choke points are the interchange of NC 68 with US 311 Bypass and the intersection of NC 68 with Wendover Avenue and Skeet Club Road. Presently much of High Point's growth is to the north and west between NC 68 and Johnson Street. This area is also subject to noise overlay restrictions associated with the Piedmont Triad International Airport and the MPO assumes that much of the new growth in this area will be associated with industry, primarily logistics.</p> <p>Choke Points along NC 68 (Eastchester Drive) While the NC 68 corridor is congested especially during the daily commute and during the International Home Furnishings Market two intersections with other arterial facilities present special problems and merit special attention as we attempt to mitigate the negative effects of</p>

<i>Corridor/Location</i>	<i>Description</i>
	<p>congestion along the Eastchester Corridor.</p> <p>NC 68/Skeet Club Road/Wendover Avenue The intersection of NC 68 with Skeet Club Road and Wendover Avenue is a chokepoint along NC 68 because it is the intersection of three major arterial routes and serves shopping centers in each quadrant of the intersection. High volumes of turning traffic mix with through traffic and shopping center traffic</p> <p>NC68/US 311 Bypass Interchange The diamond interchange at the intersection of NC 68 and US 311 bypass is currently unable to process all of the traffic seeking to access southbound US 311 Bypass</p> <p>In the long-term it will be necessary to develop additional transportation services and transportation corridors connecting High Point with Interstate 40. These transportation services may include a combination of additional highway capacity and high premium transit service along, or parallel to, NC 68¹.</p>
<p>NC 109 north</p>	<p>NC 109 north is a regional facility connecting Winston-Salem with northeast Davidson county and Thomasville. It serves as a major commuter route for workers in Davidson county with jobs in Winston-Salem and Forsyth County (including the new Dell Computing plant on Macy Grove Road in Forsyth county). North of West Lexington Avenue NC 109 is a two-lane facility with a posted speed limit that varies between 35 miles per 55 hour and miles per hour. Abutting land uses are largely rural at this time. However, there is development pressure associated with suburban development including plans by Davidson county to build new schools in this corridor.</p>
<p>NC 109 south (Randolph Street) in Thomasville</p>	<p>Randolph Street is urban facility connecting downtown Thomasville with Interstate 85. The cross-section varies from two to five lanes. Adjacent land uses range from commercial and institutional north end through manufacturing to how we retail on the south end. This facility also carries North Carolina Highway 109 through Thomasville. This presents a problem mixing substantial local commercial traffic, interstate pass-by traffic (near the</p>

¹ See the Transit Element of the High Point Transportation Plan.

<i>Corridor/Location</i>	<i>Description</i>
	<p>I85 interchange), with regional through traffic on NC 109. In addition, this facility crosses the North Carolina Railroad at grade, just south of Main Street in Thomasville.</p> <p>The North Carolina Department of Transportation is currently conducting a feasibility study (FS 0509A) to assess options to improve congestion and safety within this corridor.</p>
Skeet Club Road	<p>Skeet Club Road is a two-lane circumferential route on the north side of High Point. Skeet Club connects three major radial facilities Eastchester Drive (NC 68) with US 311.</p> <p>Much of High Point's growth is to the north and west between NC 68 and Johnson Street. This area is also subject to noise overlay restrictions associated with the Piedmont Triad International Airport and the MPO assumes that much of the new growth in this area will be associated with industry, primarily logistics. As the land use pattern changes from rural and ex-urban pattern to a more suburban residential and commercial land uses additional transportation capacity will be needed to serve this land mass. In the near term the MPO plans to widen Skeet Club Road from four lanes to two lanes. In the longer term the MPO expects to create a new circumferential by extending Piedmont Parkway west across NC 68 at least to Johnson Street.²</p>
South Main Street (Archdale) at I-85	<p>The intersection of South Main Street in Archdale with I-85 shows some congestion at this time. The MPO expects that revising the ramp signals at the intersection will provide some relief for this facility in the near term.</p>
Surrett Drive	<p>Surrett Drive is a radial arterial connecting High Point with Archdale, Trinity, and Randolph County. The existing land uses range from industrial (on the north end) to rural residential and agricultural on the south end. There is steady growth along the corridor and the MPO is managing a feasibility study to propose solutions to anticipated congestion in a timely fashion.</p>

² *Piedmont Parkway Extension Feasibility Study*. Prepared by HNTB North Carolina, P.C. City of High Point, NC. April 2007.

Recommendations

The recommendations of the congestion management plan are listed in the sections below. The recommendations include a list of programs to be continued, additional studies, operational improvements, and construction options for various portions of the urbanized area.

Congestion Management Activities Related to the International Home Furnishings Market

The semi-annual International Home Furnishings Market³ (“The Market”) is a key economic event in the High Point Metropolitan Area. Semi-annually approximately 82,000 vendors and buyers come to High Point to participate in the International Home Furnishings Market. The ‘Market’ is a significant engine of economic activity for the furniture industry and for High Point. High Point’s showroom district offers 12,000,000 square feet of showroom and display space dedicated to the furniture industry. Prior to the ‘Market’ exhibitors must fill the showrooms with goods. During the ‘Market’ sellers and buyers need seamless access to the showrooms. In order to accommodate these needs the city of High Point works cooperatively with The Market Authority to provide high quality transportation services to our visitors and guests. A summary of semiannual congestion management tasks associated with the ‘Market’ includes:

- a truck staging and parking system to improve freight access to the market district in the weeks immediately before the ‘Market’,
- seasonal park and ride lots on key routes into the city,
- shuttle services to regional and international airports located within North Carolina,
- “Go Anywhere Vans” providing service to all local showroom facilities,
- temporary variable message signs at key intersections and interchanges leading into downtown High Point,
- designated taxicab, van, and bus loading zones at the Mendenhall transportation terminal,
- special signal timing plans along major radial routes leading to downtown and the market district,
- active traffic management and peak periods during the ‘Market’, and
- leasing over-the-road coaches (buses) to provide shuttle service to and from parking lots during the week of ‘Market’.

In addition to the above items city Transportation Department actively participates with market Authority personnel, police, and emergency responders to plan and review the performance of transportation programs for the ‘Market’.

Other Congestion Management Activities

Congestion management includes implementing specific projects intended to relieve or mitigate congestion, performing studies intended to provide guidance

³ <http://www.highpointmarket.org/>

on how to relieve congestion, or preserve the transportation system and data collection or data analysis activity intended to support better future decisions. The High Point MPO works cooperatively with our partner agencies to effectively assess and respond to congested conditions. This section consists of a series of action items intended to relieve or mitigate the effects of congestion within the MPO. The activities are divided into the categories of projects, studies, and process activities.

Projects Intended to Relive Congestion

Hartley Drive Extension- The City of High Point has been working for many years to develop an intermediate loop consisting of Centennial Street and Hartley Drive. This facility will improve connectivity between High Point and northeast Davidson County. The proposed facility is a four lane boulevard with sidewalks. The project will be built using city bond funds.

High Point Signal System Upgrade-In 2006 a survey of High Point residents identified improved traffic signal coordination as the second most important transportation improvement that the City could make⁴. The existing signal specification was written in the early 1990's and construction was finished in approximately 1997. The technology used in the system is nearing obsolescence and while the system can be maintained as long as spare parts are available and software support continues there are good benefits associated with planning for an upgrade of the system at this point in its life cycle. A new signal system can make a considerable contribution to both safety and security of the transportation system.

Jamestown Bypass (U-2412) - The Jamestown bypass is a long term project first studied in 1987. The intent of the project was to relieve congestion along the major arterial facility connecting High Point, Jamestown, and Jamestown.

US-311 Bypass/I-74 (R-609 & R-2606)- The US-311 bypass/I-74 project provides an a competitive alternative route for through traffic that would otherwise use Main Street in High Point and Archdale. The already completed sections have significantly reduced traffic on Main Street in High Point. The MPO expects similar traffic reductions along Main Street in Archdale once the final segments are completed.

US 311/NC 68 Interchange Improvements- NCDOT and the City of High Point have partnered to make improvements to the interchange of US 311 and NC 68. These improvements include removing the existing monolithic concrete island and re-striping the bridge deck to accommodate more another left turn bay and additional left turn storage in the southbound direction. In the medium and long

⁴ 2006 *Direction Finder Survey: Final Report*. ETC Institute. 725 West Frontier Olathe, Kansas. December 2006.

term it is likely that this interchange will require additional work due to expected traffic growth.

Skeet Club Road Widening (U-3615) - As noted above Skeet Club Road is a circumferential route connecting Eastchester Drive (NC 68) with North Main Street. Skeet Club Road serves newer subdivision, schools, and businesses on High Point's fast growing northern fringe. This area is ideally situated between High Point, Kernersville, Winston-Salem, Greensboro, and the Piedmont Triad International Airport. Commuters and shippers can easily access any or all of the important destinations in the Triad from this area. Plans to widen Skeet Club Road from a two lane rural facility to a four-lane boulevard facility are near completion. The project will be built from east to west in two phases. U-3615B (from NC 68 to Johnson Street) will be built first. U-3615A (from Johnson Street to North Main) will be built several years later. This is consistent with current levels of congestion.

Congestion Related Studies and Planning to Mitigate Congestion or Improve Safety

The efforts in this section are plans intended to relieve congestion in the longer term. The MPO is involved in several studies intended to provide longer term guidance on congestion relief for facilities.

One-Way Pair Evaluation (C-4938)- Using CMAQ funds the MPO is re-evaluating the need for some one-way pairs in, or near, High Point's market district. This study is consistent with recommendations in High Point's adopted Core City Plan⁵.

NC 62 Access Management Study- NC 62 runs in a general southwest to northeast direction across the southern half of the High Point MPO. It parallels Interstate 85 until it crosses the interstate just north of the Randolph County/Guilford County line then continues east across southern Guilford County. There is a diamond interchange at Interstate 85 and NC 62. NC 62 is a two lane facility which carried 12,000 vehicles per day in 2005. There is heavy development pressure in the general area of the Interstate 85/NC 62 interchange which will lead to additional traffic and an increased number of potential vehicle conflicts and congestion. The City of High Point, The City of Archdale and the High Point MPO expect additional development pressure as the US 311 Bypass/Interstate 74 nears completion. Consistent with the US-311 Interchange Study recommendations⁶ the MPO is working cooperatively with Archdale to develop an access management plan for NC 62 in the area of Interstate 85. The results of the access management plan will be included in later versions of the congestion management plan.

⁵ <http://www.high-point.net/plan/corecity.cfm>. Accessed May 21, 2008.

⁶ *US 311 Bypass Interchange Study: High Point, Jamestown, and Archdale*. Land Design Inc. and Neil Shaeffer Inc. January 2002.

Signal timing Study (C-4937)- Using CMAQ money is studying two hundred signals within the MPO's jurisdiction to evaluate and assess possible improvements in signal timing that could reduce both congestion and emissions.

Surrett Drive Feasibility Study- Surrett Drive is a radial arterial serving commuters living in Randolph County and working in Archdale, High Point, or Trinity. There is steady development pressure along this corridor as well as a significant number of industries that use the facility to as entrances. The MPO is managing a feasibility study intended to provide short, medium, and long term improvements to that corridor that will relieve congestion. Elements to consider in this study are proximity to the adjacent railroad, phased improvements at key intersections, bicycle use, and environmental considerations.

US 311/NC 68 Interchange Feasibility Study-given the existing traffic volumes and the potential for traffic growth the MPO believes that the spot improvements discussed above will provide only temporary relief to congestion at the US 311/NC 68 interchange. In 2007 the City of High Point began a feasibility study intended to outline a program of long term improvements at and near the interchange. Upon completion of this study its recommendations will be incorporated into the MPO's long range transportation plan and into the STIP and MTIP as funding becomes available.

Process Activities in Support of Congestion Relief

The MPO in cooperation with other local staff participates in a number of planning and data collection efforts intended to support congestion management activities, model development, or safety and security improvements for the transportation system. The list below is a partial list of these data analysis activities.

Accident Evaluation- One full time staff member is tasked with analyzing, categorizing, and cataloguing traffic accident data. This person's duties include developing lists of intersections with higher than normal accident histories and bringing those intersections to the attention of a corridor evaluation committee.

Corridor Congestion Management Project- Beginning with major corridors the MPO is collecting congestion, accident, and reliability data on major corridors. The purpose of this study is to develop recommendations for improvements to critical corridors as well as to develop baseline data (accident rates, level of service, and travel times) along major corridors for the purpose of developing objective measures of project performance.

Hazardous Material Route Inventory- Staff is working with the fire, police and planning departments to document and develop hazardous materials routes for High Point.